11th International Aerosol Conference

#IAC2022_Athens

HYBRID

IAC 2022

4-9 September 2022

Megaron Athens International Conference Centre (M.A.I.C.C.)

ATHENS
Greece

www.iac2022.gr

Organized by:

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CIARA

Under the auspices of

HELLENIC REPUBLIC
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CITY OF ATHENS

Final Program

11th International Aerosol Conference

IAC 2022

Conference App

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Welcome Message

Dear colleagues and friends,

On behalf of the Local Organizing Committee, I am very honored and pleased to welcome all of you at the **11th International Aerosol Conference (IAC 2022)** in Athens from September 4th to September 9th, 2022. After two difficult years, with limited meetings with physical presence, IAC 2022 is a unique opportunity to meet again in person and to discuss about aerosol science and technology. We are very thankful for your massive participation and your trust. We are proud for our Global Aerosol Community, their high interest to this event and their confidence for returning to normality.

The meeting is organized by the Hellenic Association of Aerosol Research (HAAR), at MEGARON, an emblematic venue at the heart of Athens with easy access from the Athens International airport. Based on the last statistics on registrations more than 1400 participants and more than 35 exhibitors are expected to attend IAC 2022 in Athens both physically (about 85%) and virtually.

My Co-Chair and President of HAAR, Konstantinos Eleftheriadis and the Local Organizing Committee have prepared a strong scientific program with several events, while taking all the necessary measures for a safe conference.

We are grateful to the Plenary and Keynote speakers, to the International Advisory and Program Committee and especially to the European Aerosol Assembly (EAA) working groups and to the CONVIN S.A. for their contribution to the organization of this important meeting. My warmest thanks go to the friends and coworkers of the Local Organizing Committee who dedicated several hours from their personal time to prepare the conference and in particular to Thanos Nenes, Spyros Pandis and Lila Diapouli (Tutorials and Young Investigators organization), to Stamatis Pothos and Tasos Melas for their excellent job in the Outreach and to George Biskos, Sotiris Pratsinis and Alexandros Papayannis for their ideas and suggestions. Finally, nothing would be possible without the continuous presence, support and dedication from my Co-Chair, the two General Managers and "Iron Ladies" (Georgia Kastrinaki and Eleni Papaioannou) and Yannis Drossinos (Program Chair).

We are looking forward to an exciting and successful IAC 2022 in Athens with inspiring and fruitful interactions among all of you.

Nikolaos Mihalopoulos
Conference Chair of IAC 2022

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Local Organizing Committee

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11th International Aerosol Conference

Scientific Program

ATHENS Greece IAC 2022

DAY 0 | Sunday, 4 September 2022

TIME	ATRIUM (at the Conference Venue)
17:00-19:00	**Registration |** Foyer Entrance New Building
19:00-21:00	**ICEBREAKER COCKTAIL**

DAY 1 | Monday, 5 September 2022

TIME	TRIANTI HALL	MULTIPURPOSE HALL	MC3 HALL
07:30-20:00	**Registration |** Foyer Entrance New Building		
08:30-09:00	**Opening Ceremony**		
09:00-10:30	**Plenary Talk 1:** Prof. Georgios A. Sotiriou		
10:30-11:00	**Coffee Break**		
11:00-12:30	**ATAS-1:** Polar aerosols and clouds	**AMT-1:** Low cost sensors	**ATAS-2:** Source ap-portionment of urban aerosol
12:30-13:30	**Lunch Break**		
13:30-15:00	**ATAS-3:** Aerosol-cloud interaction: Observations	**AMT-2:** Measurement Techniques for health relevant aerosols	**ATAS-4:** Characterization of non-exhaust aerosol
15:00-15:30	**Coffee Break**		
15:30-17:00	**ATAS-5:** Aerosol-cloud interaction: Observations and modelling	**SS-3:** Advanced aerosol metrology for atmospheric science and air quality	**ATAS-6:** Secondary organic aerosols
17:00-19:00	**Poster Session 1** **AT-P1** Functional nanoparticles **ATAS-P1** Aerosol chemistry **ATAS-P2** Source apportionment and air quality **AMT-P1** Instrumentation for aerosol characterization **AMT-P2** Measurement techniques **AH-P1** Health effects of aerosols **AH-P2** Bioaerosols **BAP-P1** Heat and mass transfer: Experiments and simulations **BAP-P2** Quantum chemistry of aerosol formation **SS2-P1** Special Session-2: COVID-19, aerosols and ventilation **LP1** Late Posters 1		
19:00-20:00	**WG2 (ATAS) Meeting**	**WG3 (AMT) Meeting**	**WG4 (AH) Meeting**

DAY 0 | Sunday, 4 September 2022

ATRIUM (at the Conference Venue)	TIME
Registration | Foyer Entrance New Building	17:00-19:00
ICEBREAKER COCKTAIL	19:00-21:00

DAY 1 | Monday, 5 September 2022

MC2 HALL	CONFERENCE I HALL	MC3.4 HALL	TIME
**Registration	** Foyer Entrance New Building		07:30-20:00
			08:30-09:00
			09:00-10:30
			10:30-11:00
AH-1: Aerosol emissions and sources	**AT-1:** Synthesis, structuring and applications of functional nanoparticles I		11:00-12:30
Lunch Break		**GAEF Board Meeting**	12:30-13:30
BAP-1: Smog chamber and flow tube simulations and experiments	**AT-2:** Synthesis, structuring and applications of functional nanoparticles II		13:30-15:00
Coffee Break			15:00-15:30
BAP-2: Molecular-level studies of aerosol formation and gas-phase kinetics	**AT-3:** Transportation aerosol emissions and control technologies I		15:30-17:00
Poster Session 1 **AT-P1** Functional nanoparticles **ATAS-P1** Aerosol chemistry **ATAS-P2** Source apportionment and air quality **AMT-P1** Instrumentation for aerosol characterization **AMT-P2** Measurement techniques **AH-P1** Health effects of aerosols **AH-P2** Bioaerosols **BAP-P1** Heat and mass transfer: Experiments and simulations **BAP-P2** Quantum chemistry of aerosol formation **SS2-P1** Special Session-2: COVID-19, aerosols and ventilation **LP1** Late Posters 1			17:00-19:00
WG1 (AT) Meeting	**WG5 (BAP) Meeting**		19:00-20:00

DAY 2 | Tuesday, 6 September 2022

TIME	TRIANTI HALL	MULTIPURPOSE HALL	MC3 HALL
08:00-21:00	**Registration** | Foyer Entrance New Building		
08:45-10:00	**Plenary Talk 2:** Prof. Chan K. Chan		
10:00-10:30	**Awards Ceremony 1** Nikolai Albertovich Fuchs Memorial Award (IARA) & Smoluchowski Award (GAeF)		
10:30-11:00	**Coffee Break**		
11:00-12:30	**ATAS-7:** Chemistry in a multiphase aerosol system	**SS-1:** Quantification of health risk from airborne particulate pollutants	**ATAS-8:** Radiative impacts of aerosols
12:30-13:30	**Lunch Break**		
13:30-15:00	**ATAS-10:** Chemical profiling of organic aerosols at the molecular level	**AMT-3:** Particle detection by optical and condensational means	**ATAS-11:** Chemical characterization of atmospheric carbonaceous aerosols
15:00-15:30	**Coffee Break**		
15:30-17:00	**ATAS-12:** Spatio-temporal variability of aerosol optical properties	**AMT-4:** Measurement techniques for ambient air | **Keynote talk:** Prof. Paolo Laj	**ATAS-13:** Chemical characterization and modelling of carbonaceous aerosols
17:00-19:00	**Poster Session 2** AT-P2 Electrical effects AT-P3 High temperature aerosols and filtration AT-P4 Aerosol emissions and control technologies ATAS-P3 Aerosols, clouds, and new particle formation ATAS-P4 Atmospheric aerosol transport and modelling ATAS-P5 Atmospheric aerosol properties and characterization AMT-P3 Novel and low cost instrumentation AH-P3 Exposure: Sources and health studies BAP-P3 Modelling of internal and external aerosol processes BAP-P4 Physical properties of aerosol particles SS1-P1 Special Session-1: Quantification of health risk from airborne particulate matter SS3-P1 Special Session-3: Advanced aerosol metrology for atmospheric science and air quality SS4-P1 Special Session-4: Aerosols in the agriculture and livestock sectors SS5-P1 Special Session-5: Oxidative potential of aerosol particles and health risks LP2 Late Posters 2		
19:00-21:00			**Young Investigators Network (YIN) Event**

DAY 2 | Tuesday, 6 September 2022

MC2 HALL	CONFERENCE I HALL	MC3.4 HALL	TIME
Registration | Foyer Entrance New Building			08:00-21:00
			08:45-10:00
			10:00-10:30
			10:30-11:00
AH-2: Novel metrics and tools	**ATAS-9:** Transport of aerosols: Modelling and observations		11:00-12:30
EAA Aerosol Research J. Group	**Lunch Break**	**IARA Board Meeting**	12:30-13:30
BAP-3: Modelling aerosol processes I	**AT-4:** Combustion generated aerosols, spark ablation, and electrostatic properties		13:30-15:00
Coffee Break			15:00-15:30
BAP-4: Modelling aerosol processes II	**AT-5:** Nanoparticle surface modification, deposition and thin film formation		15:30-17:00
Poster Session 2 **AT-P2** Electrical effects **AT-P3** High temperature aerosols and filtration **AT-P4** Aerosol emissions and control technologies **ATAS-P3** Aerosols, clouds, and new particle formation **ATAS-P4** Atmospheric aerosol transport and modelling **ATAS-P5** Atmospheric aerosol properties and characterization **AMT-P3** Novel and low cost instrumentation **AH-P3** Exposure: Sources and health studies **BAP-P3** Modelling of internal and external aerosol processes **BAP-P4** Physical properties of aerosol particles **SS1-P1** Special Session-1: Quantification of health risk from airborne particulate matter **SS3-P1** Special Session-3: Advanced aerosol metrology for atmospheric science and air quality **SS4-P1** Special Session-4: Aerosols in the agriculture and livestock sectors **SS5-P1** Special Session-5: Oxidative potential of aerosol particles and health risks **LP2** Late Posters 2			17:00-19:00
		19:00-20:00 Elsevier Editorial Board Meeting	19:00-21:00

DAY 3 | Wednesday, 7 September 2022

TIME	TRIANTI HALL	MULTIPURPOSE HALL	MC3 HALL
08:00-17:00	**Registration |** Foyer Entrance New Building		
08:45-10:00	**Plenary Talk 3:** Prof. Lydia Bourouiba		
10:00-10:30	**Awards Ceremony 2:** International Aerosol Fellow Award (IARA) & Schmauss Award (GAeF)		
10:30-11:00	**Coffee Break**		
11:00-12:30	**ATAS-14:** Source apportionment of carbonaceous aerosol	**AMT-5:** Comparison of different measurement techniques	**11:00-12:40** **SS-2-A:** COVID-19, aerosols, and ventilation I **Keynote talk:** Dr. Yannis Drossinos
12:30-13:30	**Lunch Break**		
13:30-15:00	**ATAS-15:** Source apportionment at high resolution	**13:00-15:10** **AMT-6:** Electrical and mechanical sizing techniques **Keynote talk:** Prof. Juan Fernandez de la Mora	**SS-2-B:** COVID-19, aerosols, and ventilation II
15:00-17:00	**ACTRIS Aerosol-in-situ Community meeting**		

DAY 3 | Wednesday, 7 September 2022

MC2 HALL	CONFERENCE I HALL	MC3.4 HALL	TIME
Registration | Foyer Entrance New Building			08:00-17:00
			08:45-10:00
			10:00-10:30
Coffee Break			10:30-11:00
AH-3: Occupational exposures	**AT-6:** Aerosol Measurement Techniques, Filtration and Industrial Aerosols		11:00-12:30
Lunch Break		**EAA Board Meeting**	12:30-13:30
13:00-15:10 **ATAS-16:** Long-term trends and long-range transport of aerosols **Keynote talk:** Dr. Marco Pandolfi	**AT-7:** Synthesis, structuring and applications of functional nanoparticles III		13:30-15:00
			15:00-17:00

DAY 4 | Thursday, 8 September 2022

TIME	TRIANTI HALL	MULTIPURPOSE HALL	MC3 HALL
08:00-17:00	**Registration** | Foyer Entrance New Building		
08:45-10:00	**Plenary Talk 4:** Prof. Annette Peters		
10:00-10:30	**Conference information and Logistics**		
10:30-11:00	**Coffee Break**		
11:00-12:30	**ATAS-17:** Source apportionment in different regions I	**AMT-7:** Novel Measurement Techniques I	**ATAS-18:** Atmospheric new particle formation: Field observations and lab studies
12:30-13:30	**Lunch Break**		
13:30-15:00	**ATAS-19:** Source apportionment in different regions II	**AMT-8:** Novel Measurement Techniques II	**ATAS-20:** New particle formation and atmospheric ice nucleation
15:00-15:30	**Coffee Break**		
15:30-17:00	**ATAS-21:** Source apportionment of organic aerosol	**AMT-9:** Novel Measurement Techniques III	**ATAS-22:** Brown carbon optical properties and radiative effects
17:00-19:00	**Virtual Poster Session**		
20:00-00:00	**CONFERENCE DINNER** at the Byzantine Museum		

DAY 4 | Thursday, 8 September 2022

MC2 HALL	CONFERENCE I HALL	MC3.4 HALL	TIME
Registration | Foyer Entrance New Building			08:00-17:00
			08:45-10:00
			10:00-10:30
Coffee Break			10:30-11:00
AH-4: Organic aerosols: from emissions to toxicity assessment	**SS-4:** Aerosols in agriculture and livestock sectors		11:00-12:30
Lunch Break	WG chairs/co-chairs Meeting	Lunch Break	12:30-13:30
AH-5: Health impacts and impact assessment of exposure to airborne particles	**BAP-5:** Aerosol transport properties and fluid dynamics		13:30-15:00
Coffee Break			15:00-15:30
AH-6: Aerosol inhalation and deposition studies	**15:30-17:10 BAP-6:** Physical properties of aerosols **Keynote talk:** Prof. Eirini Goudeli		15:30-17:00
Virtual Poster Session			17:00-19:00
CONFERENCE DINNER at the Byzantine Museum			20:00-00:00

DAY 5 | Friday, 9 September 2022

TIME	TRIANTI HALL	MULTIPURPOSE HALL	MC3 HALL
08:00-17:30	**Registration |** Foyer Entrance New Building		
08:45-10:00	**Plenary Talk 5:** Prof. Jason Olfert		
10:00-10:30	**Awards Ceremony 3:** GAeF PhD Award, Early Career Poster Award & Art and Science Award		
10:30-11:00	**Coffee Break**		
11:00-12:30	**ATAS-23:** Physico-chemical properties of ambient aerosols	**10:45-12:40 SS-5-A:** Oxidative potential of aerosols particles and health risks I **Keynote talk:** Prof. Athanasios Nenes	**ATAS-24:** Connecting aerosol physico-chemical and optical properties I
12:30-13:30	**Lunch Break**		
13:30-15:00	**ATAS-26:** Physico-chemical properties of laboratory aerosols	**SS-5-B:** Oxidative potential of aerosols particles and health risks II	**ATAS-27:** Connecting aerosol physico-chemical and optical properties II
15:10-15:40	**Closing Ceremony**		

DAY 5 | Friday, 9 September 2022

MC2 HALL	CONFERENCE I HALL	MC3.4 HALL	TIME
Registration | Foyer Entrance New Building			08:00-17:30
			08:45-10:00
			10:00-10:30
Coffee Break			10:30-11:00
AH-7: Bioaerosol: monitoring, emissions and exposure	**ATAS-25:** Mechanistic understanding of SOA formation and transformation processes		11:00-12:30
Lunch Break	HAAR meeting	Lunch Break	12:30-13:30
13:30-15:10 AH-8: Human exposure in urban environments Prof. Lidia Morawska	**AMT-10:** Measurement techniques for carbonaceous particle		13:30-15:00
			15:10-15:40


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11th International Aerosol Conference

Detailed Program

ATHENS Greece IAC 2022

Scientific Program

DAY 0 | Sunday, 4 September 2022

17:00-19:00 FOYER ENTRANCE NEW BUILDING

Registration

19:00-21:00 MUSES & TRIANTI FOYER

Icebreaker Cocktail

DAY 1 | Monday, 5 September 2022

07:30-20:00 FOYER ENTRANCE NEW BUILDING

Registration

08:30-09:00 TRIANTI HALL

Opening Ceremony

09:00-10:30 TRIANTI HALL

Plenary Talk 1: Engineering nanostructured materials for biomedicine by aerosol processes

Chairs: **Sotiris Pratsinis** (SWITZERLAND), **Yinon Rudich** (ISRAEL)

Speaker: **Georgios A. Sotiriou** | Karolinska Institutet (SWEDEN)

10:30-11:00

Coffee Break

11:00-12:30 TRIANTI HALL

ATAS-1: Polar aerosols and clouds

Chairs: **Eija Asmi** (FINLAND), **Birgit Wehner** (GERMANY)

11:00-11:15 **ATAS-1-01 |** Winter-time marine aerosol: A west Pacific perspective from Antarctica to the Equator
JOEL ALROE[1], Luke Cravigan[1], Paul Selleck[2], Ruhi Humphries[2], Melita Keywood[2], Sonya Fiddes[3], Zoran Ristovski[1] | [1]Queensland University of Technology, Brisbane, Australia; [2]CSIRO Oceans and Atmosphere, Aspendale, Australia; [3]Institute for Marine and Antarctic Studies, Hobart, Australia

11:15-11:30 **ATAS-1-02 |** Secondary aerosols from the Southern Ocean
EIJA ASMI, Lauriane L. J. Quéléver, German P. Fogwill | Finnish Meteorological Institute, Helsinki, Finland

11:30-11:45 **ATAS-1-03 |** Vertical distributions of aerosol particles in Ny-Ålesund/Svalbard during different seasons
BIRGIT WEHNER[1], Christian Pilz[1], Michel Michalkow[1], Michael Lonardi[2], Holger Siebert[1] | [1]Leibniz Institute For Tropospheric Research, Tropos, Leipzig, Germany; [2]Leipzig Institute for Meteorology, University of Leipzig, Germany

11:45-12:00 **ATAS-1-04 |** Observational case studies of spatially distributed aerosol particles measured with the helicopter borne system HELiPOD during MOSAiC
BARBARA HARM-ALTSTÄDTER[1], Sven Bollmann[1], Konrad Bärfuss[1], Andreas Schlerf[1], Falk Pätzold[1], Lutz Bretschneider[1], Magnus Ole Asmussen[1], Christian Pilz[2], Ralf Käthner[2], Birgit Wehner[2], Astrid Lampert[1] | [1]Institute of Flight Guidance, Technische Universität Braunschweig, Germany; [2]Department of Experimental Aerosol and Cloud Microphysics, Leibniz Institute for Tropospheric Research, Germany

12:00-12:15 **ATAS-1-05 |** Bioaerosols and their relevance for Arctic clouds
GABRIEL PEREIRA FREITAS[1,2], Radovan Krejci[1,2], Paul Zieger[1,2] | [1]Department of Environmental Science, Stockholm University, Sweden; [2]Bolin Centre for Climate Research, Stockholm, Sweden

12:15-12:30 **ATAS-1-06 |** Arctic aerosol particle number concentrations and their trends since 2010
ANDREAS MASSLING[1], Jakob Boyd Pernov[2], Peter Tunved[3], Sangeeta Sharma[4], Eija Asmi[5], Niku Kivekäs[5], Johan Ström3, Julia Schmale[2], Hans-Christen Hansson[3], Radovan Krejci[3], Henrik Skov[1] | [1]Department of Environmental Science, Aarhus University, Roskilde, Denmark; [2]Extreme Environments Research Laboratory, École Polytechnique fédérale de Lausanne, Sion, Switzerland; [3]Department of Environmental Science, Stockholm University, Sweden; [4]Environment and Climate Change, Toronto, Canada; [5]Finnish Meteorological Institute, Helsinki, Finland

BACKUP TALK **ATAS-P3-045 |** Aerosol size distribution, hygroscopicity and cloud formation from fall to spring at an Arctic mountain site
GHISLAIN MOTOS[1], Paraskevi Georgakaki[1], Jörg Wieder[2], Gabriel Freitas[3,4], Radovan Krejci[3,4], Claudia Mohr[3,4], Paul Zieger[3,4], Wenche Aas[5], Ulrike Lohmann[2], Athanasios Nenes[1,6] | [1]EPFL, Lausanne, Switzerland; [2]Department of Environmental Systems Science, Institute for Atmospheric and Climate Science, Zurich, Switzerland; [3]Department of Environmental Science, Stockholm, Sweden; [4]Bolin Centre for Climate Research, Stockholm, Sweden; [5]NILU – Norwegian Institute for Air Research, Kjeller, Norway; [6]Center for Studies of Air Quality and Climate Change, Institute of Chemical Engineering Sciences, Patras, Greece

11:00-12:30 MULTIPURPOSE HALL

AMT-1: Low-cost sensors

Chairs: **Christof Asbach** (GERMANY), **Konstantinos Eleftheriadis** (GREECE)

11:00-11:15 **AMT-1-01 |** Evaluating the PurpleAir monitor as an aerosol light scattering instrument
James Ouimette[1], William Malm[2], Bret Schichtel[3], Patrick Sheridan[4], ELISABETH (BETSY) ANDREWS[4,5], John Ogren[4], W. Patrick Arnott[6] | [1]Sonoma Ecology Center, Eldridge, USA; [2]CIRA, Colorado State University, Fort Collins, USA; [3]National Park Service, Air Resources Division, Lakewood, USA; [4]NOAA/GML, Boulder, USA; [5]CIRES, University of Colorado, Boulder, USA; [6]Department of Physics, University of Nevada, Reno, USA

11:15-11:30 **AMT-1-02 |** Long-term evaluation of the AirSensis low-cost air quality monitoring system response
PRODROMOS FETFATZIS[1,2], George Sarigiannidis[3], Maria Gini[1], Olga Zografou[1], Panagiotis Karkavitsas[1], Konstantinos Granakis[1], Christina Spitieri[1], Vassiliki Vassilatou[1], Konstantinos Eleftheriadis[1] | [1]ERL, INRaSTES, N.C.S.R. 'Demokritos', Athens, Greece; [2]Industrial Design and Production Engineering, University of West Attica, Athens, Greece; [3]MSensis, Marousi, Athens, Greece

11:30-11:45 **AMT-1-03 |** Concurrent Characterisation and Bias Attribution of Low-cost Sensors Using Machine Learning Techniques
STEFAN GILLOTT, David Green, Ben Barratt | Imperial College London, United Kingdom

11:45-12:00 **AMT-1-04 |** Fundamental characterization of low-cost particulate matter sensors for monodisperse DEHS test aerosols and dynamic concentration changes
MARTIN NOTHHELFER, Christof Asbach, Ana Maria Todea | Institute of Energy and Environmental Technology (IUTA), Duisburg, Germany

12:00-12:15 **AMT-1-05 |** Development and Use of a Sensor Array for the Low-Cost Characterization of Indoor Air Chemistry and Aerosol Sources
AMANDA GAO[1], Matthew Goss[1], Erik Helstrom[1], David Hagan[2], Eben Cross[2], Jesse Kroll[1] | [1]Massachusetts Institute of Technology, Cambridge, USA; [2]QuantAQ, Inc., Somerville, USA

12:15-12:30 **AMT-1-06 |** Applicability of low cost sensors for monitoring NOAA concentrations in workplaces
CHRISTOF ASBACH, Martin Nothhelfer, Benjamin Sutter, Olivier Witschger, Alexandre Bescond, Francois Gaie-Levrel, Sander Ruiter, Eelco Kuijpers, Wouter Fransman, Ana Maria Todea | Institut Für Energie- Und Umwelttechnik E. V. (iuta), Duisburg, Germany

BACKUP TALK

AMT-P3-023 | Calibration of low-cost Optical Particle Counters using the Random Forest machine learning algorithm
ROUBINA PAPACONSTANTINOU[1], Vincent Langat Kipkemoi[1], Spyros Bezantakos[1], Neoklis Hadjigeorgiou[1], Marinos Costi[1], George Biskos[1,2] | [1]Climate and Atmosphere Research Centre, The Cyprus Institute, Nicosia, Cyprus; [2]Faculty of Civil Engineering and Geosciences, Delft University of Technology, Delft, Netherlands

11:00-12:30 MC3 HALL

ATAS-2: Source apportionment of urban aerosol

Chairs: **Ajit Ahlawat** (GERMANY), **Eleni Liakakou** (GREECE)

11:00-11:15 **ATAS-2-01 |** PM10, fine particles size distribution and PAHs content for Air Quality measurements in the manoeuvring area of an international airport
DAVID SANZ[1], Imara Ibarra[1], Enrique Rojas[1], Jesús Javier Rodríguez-Maroto[1], Manuel Pujadas[1], Rosa Pérez-Pastor[1], Susana García-Alonso[1], Rodolfo Fernández[1], Ana Isabel Cardona[1], Devora Hormigo[2], Jesús Sánchez[2], Paola M. Moreno[2], Dogushan Kilic[3], Paul Ivor Williams[3] | [1]Ciemat, Madrid, Spain; [2]Inta, Torrejón de Ardoz, Spain; [3]University of Manchester, United Kingdom

11:15-11:30 **ATAS-2-02 |** Sources of air pollution at background and urban sites in North Africa
NABIL DEABJI, Khanneh Wadinga Fomba, Eduardo José dos Santos Souza, Hartmut Herrmann | TROPOS Leibniz Institute for Tropospheric Research, Germany

11:30-11:45 **ATAS-2-03 |** Seasonal Variation of Chemical Composition and Potential Sources of PM2.5 in a Harbor Adjacent to Industrial Complex and Urban Area
YU LUN TSENG, Kwok-Wai Wong, Ji-Ren Zheng, Chung-Shin Yuan | Institute of Environmental Engineering, National Sun Yat-sen University, Kaohsiung, Taiwan

11:45-12:00 **ATAS-2-04 |** Hygroscopic properties of sub-micron aerosol and its link to particle chemical composition and sources at a downwind location of New Delhi
Vipul Lalchandani[1], Gaurav Mishra[2], Deepchandra Srivastava[3], Navaneeth M. Thamban[4], Suneeti Mishra[1], SACHCHIDA NAND TRIPATHI[1] | [1]Department of Civil Engineering, Indian Institute of Technology Kanpur, India; [2]Department of Aerosol Chemistry and Physics, Institute of Chemical Process Fundamentals of Czech Academy of Sciences, Prague, Czech Republic; [3]School of Geography, Earth & Environmental Sciences, University of Birmingham, United Kingdom; [4]Department of Earth and Environmental Sciences, School of Natural Sciences, The University of Manchester, United Kingdom

12:00-12:15 **ATAS-2-05 |** Seasonal variations of PM10 source contributions at regional background and urban sites
ÁLVARO CLEMENTE, Nuria Galindo, Eduardo Yubero, Begoña Navarro-Selma, Alba López-Caravaca, Jose F. Nicolás, Ramón Castañer, Javier Crespo | Atmospheric Pollution Laboratory, Miguel Hernandez University, Elche, Spain

12:15-12:30 **ATAS-2-06 |** Evolution of aerosol sources in an environment influenced by port emissions
DANIEL TOBARRA MOROÑO[1], Á. Clemente[2], E. Yubero[2], A. Carratala[1] | [1]University of Alicante, Spain; [2]Department of Applied Physics, Miguel Hernández University, Elche, Spain

BACKUP TALK

ATAS-P2-064 | Sources of particulate related pollution in a highly populated, industrialized area of Tajikistan
STEFANOS PAPAGIANNIS[1,2], V. Vasilatou[1], S. Abdullaev[3], K. Eleftheriadis[1], E. Diapouli[1] | [1]Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, N.C.S.R. "Demokritos, Athens, Greece; [2]Department of Materials Science & Engineering, University of Ioannina, Greece; [3]S.U. Umarov Physical Technical Institute of the National Academy of Sciences of Tajikistan, Dushanbe, Tajikistan

11:00-12:30 MC2 HALL

AH-1: Aerosol emissions and sources

Chairs: **Maria Gkini** (GREECE), **Amy Wilson** (UNITED KINGDOM)

11:00-11:15 **AH-1-01 |** Aerosol particle emissions from residential biomass burning: influence of different combustion appliances and firewood
VANIA MARTINS[1], João Ascenção[1], Carolina Correia[1], Luís Mendes[2], Carla A. Gamelas[1], Susana Marta Almeida[1] | [1]Instituto Superior Técnico, Lisbon, Portugal; [2]Sunset Laboratory B.V., Amsterdam, The Netherlands

11:15-11:30 **AH-1-02 |** Particle effective densities and size distributions in vehicular and wood combustion exhaust emissions: Implications to particle deposition in the human respiratory system
ARYA MUKHERJEE[1,2], Jani Leskinen[1], Mika Ihalainen[1], Arunas Mesceriakovas[1], Jorma Joutsensaari[3], Pasi Yli-Pirilä[1], Markus Somero[1], Hendryk Czech[4,5], Ralf Zimmermann[4,5], Olli Sippula[1,2] | [1]Department of Environmental and Biological Sciences, University of Eastern Finland, Kuopio, Finland; [2]Department of Chemistry, University of Eastern Finland, Joensuu, Finland; [3]Department of Applied Physics, University of Eastern Finland, Kuopio, Finland; [4]Department Environmental Health, Helmholtz Munich, Neuherberg, Germany; [5]Department of Analytical and Technical Chemistry, University of Rostock, Germany

11:30-11:45 **AH-1-03 |** Physicochemical characteristics of particulate matter emitted from smouldering peat fires
AMY WILSON[1], Wuquan Cui[2], Yuqi Hu[2], Guillermo Rein[2], Geoff Fowler[1], Marc Stettler[1] | [1]Department of Civil and Environmental Engineering, Imperial College London, United Kingdom; [2]Department of Mechanical Engineering, Imperial College London, United Kingdom

11:45-12:00 **AH-1-04 |** Aerosol formation and emissions from realistic compartment fires
Vilhelm Malmborg[1], Julia Dobric[1], Karin Lovén[2], Lina Hagvall[2], Aneta Wierzbicka[1], Bo Strandberg[2], Maria Hedmer[2], JOAKIM PAGELS[1] | [1]Ergonomics and Aerosol Technology, LTH, Lund University, Sweden; [2]Occupational and Environmental Medicine, Faculty of Medicine, Lund University, Sweden

12:00-12:15 **AH-1-05 |** Emissions characterization from 3D printing processes using polymeric and CNT-loaded filaments in an occupational setting – A SAbyNA case study
APOSTOLOS SALMATONIDIS[1], C. Delpivo[1], N. Bossa[1], S. Clavaguera[2], S. Jacquinot[2], H. Fontaine[2], J. Hanlon[3], D. Lotti[4], S. Vazquez[1] | [1]LEITAT technological center, Terrassa, Spain; [2]Univ. Grenoble Alpes, CEA, Liten, DTNM, Grenoble, France; [3]Institute of Occupational Medicine (IOM), Edinburgh, United Kingdom; [4]LATI Industria Termoplastici, Vedano Olona, Italy

12:15-12:30 **AH-1-06 |** Size distribution, elemental composition and dose estimates of desert dust aerosols in a suburban area of Athens
MARIA GKINI[1], Manousos Manousakas[1,3], Andreas-Germanos Karydas[2], Konstantinos Eleftheriadis[1] | [1]Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, NCSR Demokritos, Athens, Greece; [2]Institute of Nuclear and Particle Physics, N.C.S.R. "Demokritos", Athens, Greece; [3]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, Switzerland

BACKUP TALK

AH-eP3-016 | The role of aerosols in highly pathogenic avian influenza virus early detection and transmission
FABIEN FILAIRE[1,2], Nicolas Gaide[2], Kateri Bertran[3], Aurélie Sécula[2], Laetitia Lebre[2], Charlotte Foret-Lucas[2], Rosa Valle[3], Albert Perlas[3], Miquel Nofrarias[3], Guillermo Cantero[3], Timothée Vergne[2], Mathilde Paul[2], Guillaume Croville[2], Natalia Majo[3], Jean Luc Guerin[2] | [1]THESEO France, LanXess Group, Laval, France; [2]UMR IHAP, ENVT, INRAE, Université de Toulouse, France; [3]Unitat mixta d'Investigació IRTA-UAB en Sanitat Animal, Centre de Recerca en Sanitat Animal (CReSA), Campus de la Universitat Autònoma de Barcelona (UAB), Bellaterra, Spain

11:00-12:30 CONFERENCE I HALL

AT-1: Synthesis, structuring and applications of functional nanoparticles I

Chairs: **Maria E. Messing** (SWEDEN), **Georgios A. Sotiriou** (SWEDEN)

11:00-11:15 **AT-1-01 |** Aerosol synthesis of fractal-like near-infrared active photothermal plasmonic silver nanoaggregates films for photothermal biofilm eradication
PADRYK MERKL, Shuzhi Zhou, Apostolos Zaganiaris, Mariam Shahata, Athina Eleftheraki, Georgios A. Sotiriou | Karolinska Institutet, Solna, Sweden

11:15-11:30 **AT-1-02 |** A pharmaceutical quality-by-design approach to optimize flame-made superparamagnetic nanoparticles for theranostic applications
SHAQUIB RAHMAN ANSARI[1], Ioannis Katsaros[2], Michelle Åhlen[2], Christel A.S. Bergström[1], Peter Svedlindh[2], Alexandra Teleki[1] | [1]Department of Pharmacy, Science for Life Laboratory, Uppsala University, Sweden; [2]Department of Materials Science and Engineering, Uppsala University, Sweden

11:30-11:45 **AT-1-03 |** Porosity and crystallinity dynamics of carbon black during internal and surface oxidation
GEORGIOS KELESIDIS, Sotiris Pratsinis | ETH Zurich, Switzerland

11:45-12:00 **AT-1-04 |** Highly Oriented Direct-Spun Carbon Nanotube Textiles Aligned by In-Situ Radio Frequency Fields and Double Drawing in Acid
ADAM BOIES, Liron Issman, Xiao Zhang | University of Cambridge, United Kingdom

12:00-12:15 **AT-1-05 |** Three-dimensional aerosol nanoprinting via an electrified mask
JOOYEON SHIN[1,2], Yoon-Ho Jung[1,2], Peter V. Pikhitsa[2], Wonjin Cho[1,2], Changnyeong Hur[1,2], Wooik Jung[2], Manoo Choi[1,2] | [1]Department of Mechanical Engineering, Seoul National University, Korea; [2]A Global Frontier Center of Multiscale Energy Systems, Seoul National University, Korea

12:15-12:30 **AT-1-06 |** Spray synthesis of Pd/HKUST-1 nanocomposite and its catalytic activity
MASARU KUBO, Tomoki Matsumoto, Manabu Shimada | Hiroshima University, Japan

BACKUP TALK

AT-P1-036 | Flame-made calcium phosphate: a novel nanoplatform for drug delivery
VASILIKI TSIKOURKITOUDI, Georgios Sotiriou | Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet, Stockholm, Sweden

12:30-13:30 **MC3.4 HALL**

GAEF Board Meeting

12:30-13:30

Lunch Break

13:30-15:00 **TRIANTI HALL**

ATAS-3: Aerosol-cloud interaction: Observations

Chairs: **Lubna Dada** (SWITZERLAND & FINLAND), **Paul Zieger** (SWEDEN)

13:30-13:45 **ATAS-3-01 |** What does an unprecedented degassing volcano tell us about aerosol-cloud interactions?

YING CHEN[1,2], Jim Haywood[3], Yu Wang[4], Florent Malavelle[5], George Jordan[3], Daniel Partridge[2], Jonathan Fieldsend[2], Johannes De Leeuw[6], Anja Schmidt[6], Nayeong Cho[7], Lazaros Oreopoulos[7], Steven Platnick[7], Daniel Grosvenor[8], Paul Field[5,8], Ulrike Lohmann[4] | [1]Paul Scherrer Institut (PSI), Villigen, Switzerland; [2]University of Exeter, United Kingdom; [3]Met Office Hadley Centre, Exeter, United Kingdom; [4]ETH Zurich, Switzerland; [5]Met Office, Exeter, United Kingdom; [6]University of Cambridge, United Kingdom; [7]NASA GSFC, Greenbelt, USA; [8]University of Leeds, United Kingdom

13:45-14:00 **ATAS-3-02 |** On the origin and properties of cloud-forming particles over the central Arctic Ocean

Linn Karlsson[1,2], Andrea Baccarini[3,4], Patrick Duplessis[5], Darrel Baumgardner[6], Ian Brooks[7], Rachel Chang[5], Lubna Dada[3,4], Kaspar Dällenbach[4], Radovan Krejci[1,2], Richard Leaitch[8], Caroline Leck[2,9], Heini Wernli[10], Michael Wheeler[11], Julia Schmale[3], PAUL ZIEGER[1,2] | [1]Department of Environmental Science, Stockholm University, Sweden; [2]Bolin Centre for Climate Research, Stockholm, Sweden; [3]Extreme Environments Research Laboratory, École Polytechnique fédérale de Lausanne, Switzerland; [4]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Switzerland; [5]Department of Physics and Atmospheric Science, Dalhousie University, Canada; [6]Droplet Measurement Technologies, LLC, USA; [7]Institute for Climate and Atmospheric Science, School of Earth and Environment, University of Leeds, United Kingdom; [8]Climate Research Division, Environment and Climate Change Canada; [9]Department of Meteorology, Stockholm University, Sweden; [10]Department of Environmental Systems Science, ETH Zürich, Switzerland; [11]Air Quality Research Division, Environment and Climate Change Canada

14:00-14:15 **ATAS-3-03 |** Seasonality in sources of CCN over the Southern Ocean

Luke Cravigan[1], Joel Alroe[1], Ruhi Humphries[2], Paul Selleck[2], Melita Keywood[2], ZORAN RISTOVSKI[1] | [1]School of Earth and Atmospheric Sciences, QUT, Brisbane, Australia; [2]CSIRO Oceans and Atmosphere, Aspendale, Australia

14:15-14:30 **ATAS-3-04 |** Contribution of agricultural lands to global cooling via intense new particle formation events

LUBNA DADA[1,2], Madgalena Okuljar[1], Jiali Shen[1], Miska Olin[3], Yusheng Wu[1], Laura Heimsch[4], Ilkka Herlin[1], Saara Kankaanrinta[1], Markus Lampimäki[1], Rima Baalbaki[1], Joni Kalliokoski[3], Annalea Lohila[4], Tuukka Petäjä[1], Miikka Dal Maso[3], Veli-Matti Kerminen[1], Jonathan Duplissy[1], Markku Kulmala[1] | [1]Institute for Atmospheric and Earth System Research, Helsinki, Finland; [2]Paul Scherrer Institute, Villigen, Switzerland; [3]Aerosol Physics Laboratory, Tampere University, Finland; [4]Finnish Meteorological Institute, Helsinki, Finland

14:30-14:45 **ATAS-3-05 |** In situ measurements of aerosol properties and their effects on cloud formation: clean air masses vs aged fire emissions

SNEHITHA MANASWINI KOMMULA, Angela Buchholz, Liqing Hao, Iida Pullinen, Lejish Vettikkat, Arttu Ylisirniö, Petri Tiitta, Sami Romakkaniemi, Ari Leskinen, Siegfried Schobesberger, Annele Virtanen | University of Eastern Finland, Kuopio, Finland; [2]Finnish Meteorological Institute, Kuopio, Finland

14:45-15:00 **ATAS-3-06 |** Targeted Use of Sustainable Aviation Fuels to Reduce Contrail Climate Forcing

Roger Teoh[1], Ulrich Schumann[2], Christiane Voigt[2], Tobias Schripp[3], MARC STETTLER[1] | [1]Department of Civil and Environmental Engineering, Imperial College London, United Kingdom; [2]Institute of Atmospheric Physics, German Aerospace Center, Germany; [3]Institute of Combustion Technology, German Aerospace Center, Germany

BACKUP TALK **ATAS-P3-049 |** Connecting new particle formation and aerosol-cloud interactions in boreal environment

TUUKKA PETÄJÄ[1,2], Ksenia Tabakova[1], Antti Manninen[1,3], Ekaterina Ezhova[1], Ewan O'Connor[3,4], Dmitri Moisseev[1], Victoria A. Sinclair[1], John Backman[3], Janne Levula[1], Krista Luoma[1], Aki Virkkula[1,2,3], Mikhail Paramonov[1], Meri Räty[1], Mikko Äijälä[1], Liine Heikkinen[1], Mikael Ehn[1], Mikko Sipilä[1], Taina Yli-Juuti[5], Annele Virtanen[5], Michael Ritsche[6], Nicki Hickmon[6], Guy Pulik[7], Daniel Rosenfeld[7], Douglas R. Worsnop[8], Jaana Bäck[9], Markku Kulmala[1], Veli-Matti Kerminen[1] | [1]Institute for Atmospheric and Earth System Research / Physics, University of Helsinki, Finland; [2]Joint International Research Laboratory of Atmospheric and Earth System Sciences, Nanjing, China; [3]Finnish Meteorological Institute, Helsinki, Finland; [4]University of Reading, United Kingdom; [5]University of Eastern Finland, Kuopio, Finland; [6]Argonne National Laboratory, Lamont, USA; [7]The Hebrew University of Jerusalem, Israel; [8]Aerodyne Research Inc., Billerica, USA; [9]Institute for Atmospheric and Earth System Research / Forest Sciences, University of Helsinki, Finland

13:30-15:00 MULTIPURPOSE HALL

AMT-2: Measurement Techniques for health relevant aerosols

Chairs: **Dinesh Durán Jiménez** (NETHERLANDS), **Dévora Hormigo Jurado** (SPAIN)

13:30-13:45 **AMT-2-01 |** An Exhaled Breath Sampler Based on Condensational Growth and Cyclone Centrifugation

DONGBIN WANG, Lebing Wang, Jianguo Deng, Menghao Chen, Xue Li, Yun Lu, Jingkun Jiang | Tsinghua University, Beijing, China Tsinghua University, Beijing, China

13:45-14:00 **AMT-2-02 |** Solid phase condensation capture enables highly efficient bioaerosol recovery and preservation in unobtrusive portable platforms

Emily Kraus, Blaire Volbers, MARK HERNANDEZ | University of Colorado, Boulder, USA

14:00-14:15 **AMT-2-03 |** Pollen classification using polarized light scattering

DANAËL CHOLLETON[1], Émilie Bialic[2], Antoine Dumas[2], Pascal Kaluzny[2], Patrick Rairoux[1], Alain Miffre[1] | [1]Institute of Light and Matter, Villeurbanne, France; [2]TERA Sensor, Rousset, France

14:15-14:30 **AMT-2-04 |** Surface tension of surfactant containing aerosol droplets

ALISON BAIN, Bryan Bzdek | University of Bristol, United Kingdom

14:30-14:45 **AMT-2-05 |** CHART: a novel system for detector evaluation against toxic chemical aerosols

DINESH DURAN JIMENEZ, Mirjam de Bruin-Hoegee, Duurt P.W. Alkema, Daan Noort, Ruud Busker, Arjan L. van Wuijckhuijse | TNO, Rijswijk, Netherlands

14:45-15:00 **AMT-2-06 |** Aircraft emissions at Madrid Adolfo Suárez Airport

DEVORA HORMIGO JURADO[1], Jesús Sánchez-Valdepeñas[1], Paola Moreno González[1], María Sánchez García[1], Jorge Roig[1], Jesús Rodríguez-Maroto[2], Manuel Pujadas[2], Imara Ibarra[2], Enrique Rojas[2], David Sanz[2], Paul Williams[3], Dogushan Kiliç[3] | [1]Instituto Nacional De Técnica Aeroespacial (INTA), Torrejón De Ardoz, Spain; [2]Research Centre for Energy, Environment and Technology (CIEMAT), Madrid, Spain; [3]The University of Manchester, United Kingdom

BACKUP TALK

AMT-eP1-012 | High-throughput Mixing-flow Condensation Aerosol Collector (MCAC): Performance Evaluation and Application to Microscopy and Optical Spectroscopies

ORTHODOXIA ZERVAKI[1,2], Dionysios D. Dionysiou[2], Pramod Kulkarni[1] | [1]Health Effects Laboratory Division, National Institute for Occupational Safety and Health, Cincinnati, USA; [2]Environmental Engineering and Science Program, Department of Chemical and Environmental Engineering (ChEE), University of Cincinnati, USA

13:30-15:00 **MC3 HALL**

ATAS-4: Characterization of non-exhaust aerosol

Chairs: **David Green** (UNITED KINGDOM), **Franco Lucarelli** (ITALY)

13:30-13:45 **ATAS-4-01 |** Non-exhaust emissions from road traffic in Lisbon: Characterization and pollution indexes

INES CUNHA-LOPES[1], Célia Alves[2], Ismael Casotti Rienda[2], Tiago Faria[1], Franco Lucarelli[3], Xavier Querol[4], Fulvio Amato[4], Susana Marta Almeida[1] | [1]Centro De Ciências E Tecnologias Nucleares, Instituto Superior Técnico, Universidade De Lisboa, Portugal; [2]Centre of Environmental and Marine Studies, Department of Environment, University of Aveiro, Portugal; [3]INFN - Firenze, National Institute for Nuclear Physics - Florence division, Italy; [4]Institute of Environmental Assessment and Water Research, Spanish Research Council (IDÆA-CSIC), Barcelona, Spain

13:45-14:00 **ATAS-4-02 |** Quantifying non-exhaust emissions in the UK using combined measurement and modelling approaches

WILLIAM HICKS[1], Sean Beevers[1], Max Priestman[1], Anja Tremper[1], Annalisa Sheehan[1], James Allan[2], Michael Flynn[2], William Bloss[3], David Green[1] | [1]Imperial College London, United Kingdom; [2]Department of Earth and Environmental Sciences, Manchester, United Kingdom; [3]School of Geography, Earth and Environmental Sciences, University of Birmingham, United Kingdom

14:00-14:15 **ATAS-4-03 |** Sources of ambient particulate matter in Skopje urban area

DEJAN MIRAKOVSKI, Blazo Boev, Afrodita Zendelska, Marija Hadzi-Nikolova, Ivan Boev, Tena Shijakova | University "Goce Delcev", Stip, North Macedonia

14:15-14:30 **ATAS-4-04 |** Non-exhaust traffic emissions: a size-segregated field study and development of a road dust sampling device

FEDERICA CROVA[1], Vera Bernardoni[1], Giulia Calzolai[2,3], Maddalena Castelli Dezza[1], Alice Corina Forello[1,2], Luigi Gianelle[4], Franco Lucarelli[2,3], Silvia Nava[2,3], Sara Valentini[1], Gianluigi Valli[1], Roberta Vecchi[1] | [1]Department of Physics, Università degli Studi di Milano and INFN-Milano, Italy; [2]Department of Physics and Astrophysics, Università degli Studi di Firenze, Sesto Fiorentino, Italy; [3]INFN-Firenze, Sesto Fiorentino, Italy; [4]ARPA Lombardia, Milan, Italy

14:30-14:45 **ATAS-4-05 |** Size and time-resolved source contributions and oxidative potential of non-exhaust sources in Barcelona

ANGIE ALBARRACIN MELO[1], Angeliki Karanasiou[1], Barend L. Van Drooge[1], Veronica Moreno[1], Xavier Querol[1], Natalia Moreno[1], Oriol Font[1], Rafael Bartroli[1], Ana Oliete[2], Frank Kelly[2], Franco Lucarelli[3], Giulia Pazzi[3], Fabio Giardi[3], Fulvio Amato[1] | [1]Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Barcelona, Spain; [2]Imperial College of London, United Kingdom; [3]University of Florence, Italy

14:45-15:00 **ATAS-4-06 |** Source Attribution and Magnitude Model: A new perspective for fugitive PM10 emissions

Greg Yarwood[1], Bart Brashers[1], Tasko Olevski[1], Chris Atherly[1], Martin Parsons[2], RUTH PEIFFER[3] | [1]Ramboll US Consulting, Novato, USA; [2]Ramboll Australia Pty Ltd, Perth, Australia; [3]BHP Iron Ore Pty Ltd, Perth, Australia

13:30-15:00 **MC2 HALL**

BAP-1: Smog chamber and flow tube simulations and experiments

Chairs: **Dina Alfaouri** (FINLAND), **Coty Jen** (USA)

13:30-13:45 **BAP-1-01 |** Gas-phase Products and Secondary Organosiloxane Aerosol from D5 + OH in an Oxidation Flow Reactor

HYUN GU KANG[1,2], Yanfang Chen[2], Jiwoo Jeong[3], Yoojin Park[4], Ulrich Pöschl[1], Thomas Berkemeier[1], Hwajin Kim[2,3] | [1]Multiphase Chemistry Department, Max Planck Institute For Chemistry, Mainz, Germany; [2]Institute of Health and Environment, Graduate School of Public Health, Seoul National University, Korea; [3]Department of Environmental Health Sciences, Graduate School of Public Health, Seoul National University, Korea; [4]Department of Environmental Science and Engineering, College of Engineering, Seoul, Korea

13:45-14:00 **BAP-1-02 |** Investigating the SOA formation from mixtures of volatile precursors in chamber experiments: insights, challenges and implications

ARISTEIDIS VOLIOTIS[1], Mao Du[1], Yunqi Shao[1], Yu Wang[1], Rami M. Alfarra[1], Thomas J. Bannan[1], Dawei Hu[1], Kelly L. Pereira[2], Spyros N Pandis[3], Carl J Percival[4], Jaqueline F. Hamilton[2], Mattias Hallquist[5], Thomas F. Mentel[6], Gordon McFiggans[1] | [1]The University of Manchester, United Kingdom; [2]University of York, United Kingdom; [3]University of Patras, Greece; [4]NASA Jet Propulsion Laboratory, Pasadena, USA; [5]University of Gothenburg, Sweden; [6]Forschungszentrum Jülich, Germany

14:00-14:15 **BAP-1-03 |** Chemical characterisation of primary emissions and secondary aerosol formation from a gasoline vehicle compliant with EURO6 emission standard

ANDREAS PAUL[1], Zheng Fang[2], Patrick Martens[5], Ellen Iva Rosewig[5], Battist Uttinger[4], Alexandre Barth[4], Elena Hartner[3,5], Gert Jakobi[3], Jürgen Orasche[3], Thorsten Hohaus[1], Hendryk Czech[3,5], Markus Kalberer[4], Olli Sippula[6], Yinon Rudich[2], Ralf Zimmermann[3,5], Astrid Kiendler-Scharr[1] | [1]IEK-8 Troposhere, Forschungszentrum Jülich GmbH, Jülich, Germany; [2]Department of Earth and Planetary Science, Weizmann Institute of Science, Rehovot, Israel; [3]Group of Comprehensive Molecular Analytics, Helmholtz Zentrum München, Neuherberg, Germany; [4]Department of Umweltwissenschaften, University of Basel, Switzerland; [5]Department of Technical and Analytical Chemistry, University of Rostock, Germany; [6]Department of Environmental and Biological Science, University of Eastern Finland, Kuopio, Finland

14:15-14:30 **BAP-1-04 |** Effects of seawater salinity and chemical composition on sea spray aerosol production

EVA R. KJÆRGAARD[1], Sarah Suda Petters[1], Lærke S. Nielsen[1], Sigurd Christiansen[2], Bernadette Rosati[1], Merete Bilde[1] | [1]Aarhus University, Denmark; [2]University of the Faroe Islands, Tórshavn, Faroe Islands

14:30-14:45 **BAP-1-05 |** Secondary organic aerosol formation from the oxidation of volatile chemical products

HAROULA BALIAKA[1], Reina S. Buenconsejo[1], David R. Cocker III[2], John H. Seinfeld[1] | [1]California Institute of Technology, Pasadena, USA; [2]University of California at Riverside, USA

14:45-15:00 **BAP-1-06 |** Simulated long-term atmospheric aging of organic carbon in a laboratory chamber

LESLY FRANCO DELOYA[1], Yaowei Li[2], Jordan E. Krechmer[3], Jesse H. Kroll[4], Frank N. Keutsch[2] | [1]Massachusetts Institute of Technology, Department of Earth, Atmospheric, and Planetary Sciences, Cambridge, USA; [2]Harvard University, Paulson School of Engineering and Applied Sciences, Cambridge, USA; [3]Aerodyne Research Incorporated, Center for Aerosol and Cloud Chemistry, Billerica, USA; [4]Massachusetts Institute of Technology, Department of Civil and Environmental Engineering, Cambridge, USA

BACKUP TALK

BAP-P1-012 | The effect of temperature on secondary organic aerosol formation from ozonolysis of Δ-3-carene

LINJIE LI[1], Ditte Thomsen[2], Michael Priestley[1], Emil Mark Iversen[2], Jane Tygesen Skønager[2], Yuanyuan Luo[3], Mikael Ehn[3], Henrik B. Pedersen[4], Merete Bilde[2], Marianne Glasius[2], Mattias Hallquist[1] | [1]Department of Chemistry and Molecular Biology, University of Gothenburg, Sweden; [2]Departement of Chemistry, Aarhus University, Denmark; [3]Institute for Atmospheric and Earth System Research/Physics, University of Helsinki, Finland; [4]Department of Physics and Astronomy, Aarhus University, Denmark

13:30-15:00 **CONFERENCE I HALL**

AT-2: Synthesis, structuring and applications of functional nanoparticles II

Chairs: **Adam Boies** (UNITED KINGDOM), **Jorma Jokiniemi** (FINLAND)

13:30-13:45 **AT-2-01 |** Aerosol spray pyrolysis synthesis of doped LiNi0.5Mn1.5O4 and simulation tools for Lithium-Ion Batteries

GEORGIA KASTRINAKI[1], George Ganas[1], George Karagiannakis[1], Aitor Eguia-Barrio[2], Miguel Bengoechea[2], Iratxe de Meatza[2,3] | [1]CPERI/CERTH, Thessaloniki, Greece; [2]CIDETEC, Basque Research and Technology Alliance (BRTA), Donostia, San Sebastian, Spain; [3]Department of Organic and Inorganic Chemistry, Universidad del País Vasco (UPV/EHU), Spain

13:45-14:00 **AT-2-02 |** Gas-phase Synthesis of Metal Oxide by Electrospray-Assisted Flame Pyrolysis

Jalal Poostforooshan[1], Malte Stodt[2,3], Malte Bierwirth[1], Udo Fritsching[2,3], ALFRED WEBER[1] | [1]Institute of Particle Technology, Clausthal University of Technology, Germany; [2]Technische Thermodynamik, Universität Bremen, Germany; [3]Leibniz Institute for Materials Engineering IWT, Bremen, Germany

14:00-14:15 **AT-2-03 |** Synthesis of cathode materials by spray drying and pyrolysis for Li-ion batteries

JORMA JOKINIEMI, Mika Ihalainen, Miika Kortelainen, Tommi Karhunen, Sara-Maria Mesceriakove, Arunas Mesceriakovas, Anna Lähde | University of Eastern Finland, Kuopio, Finland

14:15-14:30 **AT-2-04 |** Field-directed Self-assembly of Engineered Magnetic Aerosol Nanoparticles

CALLE PREGER, Mehran Sedrpooshan, Pau Ternero, Rasmus Westerström, Maria Messing | Lund University, Sweden

14:30-14:45 **AT-2-05 |** Aerosol route for printing 3D metamaterials at nanoscale

Bingyan Liu, JICHENG FENG | [1]School of Physical Science and Technology, ShanghaiTech University, China; [2]Center for Transformative Science, ShanghaiTech University, China

14:45-15:00 **AT-2-06 |** The impact of embedded Pd fraction on the performance of flame-made Pd-containing SnO2 sensors

KATARZYNA JABLCZYNSKA[1], Christian M.P. Kubsch[1], Luca Dahle[1], Alexander Gogos[2], Sotiris E. Pratsinis[1] | [1]ETH Zurich, Switzerland; [2]Swiss Federal Laboratories for Materials Science and Technology (EMPA), St. Gallen, Switzerland

BACKUP TALK

AT-P1-037 | On the mixing dynamics of the electrodes' material during the formation of multicomponent nanoparticles in a spark discharge generator

Lajos Péter Villy[1], Gábor Galbács[1], Zsuzsanna Márton[2], Zsolt Geretovszky[1], ATTILA KOHUT[1] | [1]University of Szeged, Hungary; [2]ELI-ALPS, ELI-HU Non-Profit Ltd., Szeged, Hungary

15:00-15:30

Coffee Break

15:30-17:00 **TRIANTI HALL**

ATAS-5: Aerosol-cloud interaction: Observations and modelling

Chairs: **Ying Chen** (SWITZERLAND), **Veli-Matti Kerminen** (FINLAND)

15:30-15:45 **ATAS-5-01 |** Application of the spectral cloud microphysics model COSMO-SPECS for sensitivity studies in real mixed-phase cloud scenarios
ROLAND SCHRÖDNER, Johannes Bühl, Fabian Senf, Oswald Knoth, Martin Simmel, Jens Stoll | Leibniz Institute For Tropospheric Research, Germany

15:45-16:00 **ATAS-5-02 |** Aerosol- and updraft-limited regimes of cloud droplet formation in two climate models
DANIEL PARTRIDGE[1], Harri Kokkola[2], Emanuele Tovazzi[1], Katia Piscina[1] | [1]University of Exeter, United Kingdom; [2]Finnish Meteorological Institute, Kuopio, Finland

16:00-16:15 **ATAS-5-03 |** Investigating the role of giant cloud condensation nuclei in drizzling marine stratocumulus using a large eddy simulator
MARJE PRANK, Jaakko Ahola, Juha Tonttila, Harri Kokkola, Thomas Kühn, Sami Romakkaniemi, Xiaoxia Shang, Tomi Raatikainen | Finnish Meteorological Institute, Helsinki, Finland

16:15-16:30 **ATAS-5-04 |** A process-based evaluation of the biogenic secondary organic aerosol feedback in Earth System Models
SARA MARIE BLICHNER[1], Taina Yli-Juuti[2], Moa Sporre[3], Carl Svenhag[3], Tero Mielonen[4], Liine Heikkinen[1], Annele Virtanen[2], Harri Kokkola[4], Claudia Mohr[1], Ilona Riipinen[1] | [1]Stockholm University, Sweden, [2]University of Eastern Finland, Kuopio, Finland, [3]Lund University, Sweden, [4]Finnish Meteorological Institute, Kuopio, Finland

16:30-16:45 **ATAS-5-05 |** Modelling chemical and aerosol processes on a stratocumulus to cumulus transition during a cold-air outbreak
ELISSAVET BOSSIOLI[1], Georgia Sotiropoulou[2,3], Michail Karalis[4], Georgia Methymaki[1], Maria Tombrou[1] | [1]National and Kapodistrian University of Athens, Greece; [2]Laboratory of Atmospheric Processes and their Impacts, ENAC, Ecole Polytechnique Fédérale de Lausanne, Switzerland; [3]Institute of Chemical Engineering Sciences, Foundation for Research and Technology Hellas, Patras, Greece; [4]Department of Meteorology, Stockholm University & Bolin Center for Climate Research, Sweden

16:45-17:00 **ATAS-5-06 |** Cloud droplet number susceptibility to CCN concentrations in low-level boundary layer clouds: comparison of in-situ observations and large-scale models
ANNELE VIRTANEN[1], Jorma Joutsensaari[1], Harri Kokkola[2], Øyvind Seland[3], Paul Zieger[4,5], Linn Karlsson[4,5], Ilona Riipinen[4,5], Radovan Krejci[4,5], Antti Hyvärinen[6], Heikki Lihavainen[6], Sami Romakkaniemi[2] | [1]University of Eastern Finland, Kuopio, Finland; [2]Finnish Meteorological Institute, Kuopio, Finland; [3]Norwegian Meteorological Institute, Oslo, Norway; [4]Department of Environmental Science, Stockholm University, Sweden; [5]Bolin Centre for Climate Research, Stockholm University, Sweden; [6]Finnish Meteorological Institute, Helsinki, Finland

BACKUP TALK **ATAS-P1-032 |** Sensitivity study of Volatility Basis Set (VBS) in ECHAM-HAM-SALSA
MUHAMMED IRFAN[1], Harri Kokkola[2], Taina Yli-Juuti[1], Annele Virtanen[1], Thomas Kühn[3] | [1]Department of Applied Physics, University of Eastern Finland, Kuopio, Finland; [2]Finnish Meteorological Institute, Atmospheric Research Center of Eastern Finland, Kuopio, Finland; [3]Finnish Meteorological Institute, Helsinki, Finland

15:30-17:00 **MULTIPURPOSE HALL**

SS-3: Advanced aerosol metrology for atmospheric science and air quality

Chairs: **Burkhard Beckhoff** (GERMANY), **Antonios Tasoglou** (USA)

15:30-15:45 **SS-3-01 |** Traceable calibration of real-time bioaerosol particle counters

Gian Lieberherr[1], Kevin Auderset[2], Bertrand Calpini[1], Bernard Clot[1], Benoît Crouzy[1], Thomas Konzelmann[1], Andrea Mihajlovic[3], Branko Sikoparija[3], Eric Sauvageat[1,4], Fiona Tummon[1], Christian Wälchli[2], KONSTANTINA VASILATOU[2] | [1]Federal Office of Meteorology and Climatology MeteoSwiss, Payerne, Switzerland; [2]Federal Institute of Metrology Metas, Bern, Switzerland; [3]University of Novi Sad, Serbia; [4]University of Bern, Switzerland

15:45-16:00 **SS-3-02 |** Field intercomparison of particle counters under winter conditions

AXEL ERIKSSON[1], M Petersson Sjögren[1], M Spanne[2], A Kristensson[3], E Ahlberg[3], L Nilsson[3], P Egholm Bøgh Pedersen[4,5], Q Thu Nguyen[5], S Koust Hansen[5], A Bescond[6], F Gaie-Levrel[6], C Debert[7], A Mahnaoui[7], L Stabile[8], F.J. Gómez-Moreno[9], S Vratolis[10], T Tuch[11], U Winkler[11], A Wiedensohler[11], J Rissler[1,12] | [1]Lund University, Design Dept., Sweden; [2]City of Malmö, Sweden; [3]Lund University, Physics Dept., Sweden; [4]Aarhus University, Denmark; [5]DTI, Aarhus, Denmark; [6]LNE, Paris, France; [7]Airparif, Paris, France; [8]Cassino and S. Lazio U., Italy; [9]CIEMAT, Madrid, Spain; [10]Demokritos, Athens, Greece; [11]TROPOS, Leipzig, Germany; [12]RISE, Lund, Sweden

16:00-16:15 **SS-3-03 |** Performance evaluation of black carbon portable instrument with a laboratory experimental set-up under a controlled environment

ALEXANDRE BESCOND[1], Stig Koust Hansen[2], Quynh Thu Nguyen[2], Peter Egholm Bogh Pedersen[2], Christophe Debert[3], Anis Mahnaoui[3], Lucas Stabile[4], F.J. Gomez-Moreno[5], Axel Erikkson[6], Jenny Rissler[6], Kostas Eleftheriadis[7], Stergios Vratolis[7], François Gaie-Levrel[1] | [1]LNE, Paris, France; [2]DTI, DK-[8]000 Aarhus, Denmark; [3]Airparif, Paris, France; [4]University of Cassino, Italy; [5]CIEMAT, Madrid, Spain; [6]Lunds Universitet and RISE Research Institutes of Sweden, Lund, Sweden; [7]NCSR "Demokritos", Athens, Greece

16:15-16:30 **SS-3-04 |** 1-year performance test of Soft X-ray charge conditioners

U. WINKLER[1], S. Seeger[2], M. Gottschalk[2], M. Merkel[1], K. Weinhold[1], A. Wiedensohler[1] | [1]Department of Experimental Aerosol and Cloud Microphysics, Leibniz Institute for Tropospheric Research (TROPOS), 04318 Leipzig, Germany, [2]Division 4.2 Materials and Air Pollutants, Federal Institute for Materials Research and Testing (Bundesanstalt für Materialforschung und -prüfung, BAM), 12205 Berlin, Germany

16:30-16:45 **SS-3-05 |** Reliable quantification of the elemental composition of airborne particulate matter by means of reference-free X-ray spectrometry

YVES KAYSER, Philipp Hönicke, Janos Osan, Beatrix Pollakowski-Herrmann, Stefan Seeger, Burkhard Beckhoff | Physikalisch-Technische Bundesanstalt, Berlin, Germany

16:45-17:00 **SS-3-06 |** Development and characterization of potential reference samples for TXRF elemental analysis of aerosol particles collected by cascade impactors

JANOS OSAN[1], Csaba Ducso[1], Otto Czompoly[1], Martin Gottschalk[2], Stefan Seeger[2], Armin Gross[3], Yves Kayser[4], Burkhard Beckhoff[4] | [1]Centre For Energy Research, Budapest, Hungary; [2]Federal Institute for Materials Research and Testing, Berlin, Germany; [3]Bruker Nano GmbH, Berlin, Germany; [4]Physikalisch-Technische Bundesanstalt, Berlin, Germany

BACKUP TALK **SS3-P1-010 |** MAC values in South East Europe during 2017 to 2019

STERGIOS VRATOLIS[1], Maria Gini[1], Evangelia Diapouli[1], Eija Asmi[2], Konstantinos Eleftheriadis[1] | [1]NCSR DEMOKRITOS, Athens, Greece; [2]Finnish Meteorological Institute, Helsinki, Finland

15:30-17:00 **MC3 HALL**

ATAS-6: Secondary organic aerosols

Chairs: **Elissavet Bossioli** (GREECE), **Falk Mothes** (GERMANY)

15:30-15:45 **ATAS-6-01 |** In-cloud production of secondary organic aerosol from biomass burning emissions

TIANTIAN WANG, Houssni Lamkaddam, Kun Li, David Bell, Jun Zhang, Tianqu Cui, Mihnea Surdu, Pascal André Schneider, Imad El Haddad, Jay Gates Slowik, Andre Prevot | Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, Switzerland

15:45-16:00 **ATAS-6-02 |** Chemical evolution of primary and secondary biomass burning aerosols during daytime and nighttime

Amir Yazdani[1], SATOSHI TAKAHAMA[1], John Kodros[2], Marco Paglione[2,3], Mauro Masiol[2], Stefania Squizzato[2], Spiro Jorga[2], Spyros Pandis[2,4], Athanasios Nenes[1,2] | [1]Laboratory of atmospheric processes and their impacts (LAPI), ENAC/IIE, Ecole polytechnique fédérale de Lausanne (EPFL), Switzerland; [2]Institute for Chemical Engineering Sciences, Foundation for Research and Technology Hellas (ICE-HT/FORTH), Patras, Greece; [3]Italian National Research Council - Institute of Atmospheric Sciences and Climate (CNR-ISAC), Bologna, Italy; [4]Department of Chemical Engineering, University of Patras, Greece

16:00-16:15 **ATAS-6-03 |** Importance of the interconnection of the day- and night- chemistry of a-pinene - experiments in the ACD-C aerosol simulation chamber

AGATA KOLODZIEJCZYK[1,2], Anke Mutzel[1], Laurent Poulain[1], Herrmann Hartmut[1] | [1]Atmospheric Chemistry Department (ACD), Leibniz-Institute for Tropospheric Research (TROPOS), Leipzig, Germany; [2]Now at: Institute of Physical Chemistry PAS, Warsaw, Poland

16:15-16:30 **ATAS-6-04 |** Aerosol production from laboratory chamber oxidation of organosulfur compounds

MATTHEW GOSS[1], Argen Smith[1], Qing Ye[2], Yaowei Li[3], Frank Keutsch[3], Jesse Kroll[1] | [1]Massachusetts Institute of Technology, Cambridge, USA; [2]National Center for Atmospheric Research, Boulder, USA; [3]Harvard University, Cambridge, USA

16:30-16:45 **ATAS-6-05 |** Multiphase chemical kinetics and reaction mechanisms of oleic acid ozonolysis: Evaporation and dimerization kinetics dictate the evolution of products

ASHMI MISHRA[1], Marcel Müller[2], Thomas Peter[2], Ulrich Pöschl[1], Ulrich Krieger[2], Thomas Berkemeier[1] | [1]Multiphase Chemistry Department, Max Planck Institute For Chemistry, Mainz, Germany; [2] Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland

16:45-17:00 **ATAS-6-06 |** Condensed-phase photochemistry greatly increases the viscosity of atmospheric secondary organic aerosol particles

SERGEY NIZKORODOV[1], Vahe Baboomian[1], Giuseppe Crescenzo[2], Yuanzhou Huang[2], Fabian Mahrt[2,3], Allan Bertram[2], Manabu Shiraiwa[1] | [1]Department of Chemistry, University of California, Irvine, USA; [2]Department of Chemistry, University of British Columbia, Vancouver, Canada; [3]Laboratory of Environmental Chemistry, Paul Scherrer Institute, Villigen, Switzerland

BACKUP TALK

ATAS-P1-031 | Non-linear effects caused by oligomerization and slow diffusion in the formation and evaporation of secondary organic aerosol

Thomas Berkemeier[1], Hyun Gu Kang[1], Masayuki Takeuchi[2], Nga Lee Ng[2], Ulrich Pöschl[1] | [1]Max Planck Institute For Chemistry, Mainz, Germany; [2]Georgia Institute of Technology, Atlanta, USA

15:30-17:00 MC2 HALL

BAP-2: Molecular-level studies of aerosol formation and gas-phase kinetics

Chairs: **Nanna Myllys** (FINLAND), **Tinja Olenius** (SWEDEN)

15:30-15:45 **BAP-2-01 |** Critical role of iodous acid (HIO2) in neutral iodine oxoacid nucleation
XU-CHENG HE[1,2,3], Rongjie Zhang[4], Hongbin Xie[4], Jasper Kirkby[2], Douglas R. Worsnop[3], Mikko Sipilä[3], Markku Kulmala[3] | [1]Carnegie Mellon University, Pittsburgh, USA; [2]CERN, Geneva, Switzerland, [3]University of Helsinki, Finland; [4]Dalian University of Technology, Dailian, China

15:45-16:00 **BAP-2-02 |** Explaining nighttime sulfuric acid in the marine boundary layer: A missing SO2 oxidant
SIDDHARTH IYER, Matti Rissanen | Aerosol Physics Laboratory, Tampere University, Finland

16:00-16:15 **BAP-2-03 |** Gas-phase accretion product formation through peroxy radical self- and cross-reactions
THEO KURTEN[1,2], Christopher Daub[1,2], Mikael Ehn[2], Lauri Franzon[1,2], Benny Gerber[3], Thomas Golin Almeida[1,2], Galib Hasan[1,2], Otso Peräkylä[2], Matti Rissanen[1], Vili Salo[1,2], Rashid Valiev[1,2], Itay Zakai[3] | [1]University of Helsinki, Dept. of Chemistry, Finland; [2]University of Helsinki, INAR, Finland; [3]Hebrew University of Jerusalem, Dept. of Chemistry, Israel

16:15-16:30 **BAP-2-04 |** Atmospheric cluster formation: speed-up by employing quantum-machine-learning methods
JAKUB KUBECKA, Anders S. Christensen, Freja Rydahl Rasmussen, Jonas Elm | Aarhus University, Denmark

16:30-16:45 **BAP-2-05 |** Modelling approaches for atmospheric ion-dipole collisions
IVO NEEFJES[1], Roope Halonen[2], Hanna Vehkamäki[1], Bernhard Reischl[1] | [1]Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Finland; [2]Center for Joint Quantum Studies and Department of Physics, School of Science, Tianjin University, China

16:45-17:00 **BAP-2-06 |** Investigating the role of atomic clusters as a pathway for improving selectivity in Metal Oxide Semiconducting Gas Sensors by Density Functional Theory calculations
Mohsen Doust Mohammadi, SOMNATH BHOWMICK, George Biskos | The Cyprus Institute, Nicosia, Cyprus

BACKUP TALK **BAP-P2-001 |** Anthropogenic volatile organic compound (AVOC) autoxidation – What we know, and what we think we know
MATTI RISSANEN[1], L. Pichelstorfer[2], P. Roldin[3], O. Garmash[1], S. Iyer[1], S. Barua[1], P. Seal[1], R. Valiev[4], Z. Wang[5], M. Sarathy[6], T. Kurtén[4], M. Boy[2], M. Ehn[2] | [1]Aerosol Physics Laboratory, Tampere University, Finland; [2]Institute for Atmospheric and Earth Systems Research/Physics, University of Helsinki, Finland; [3]Department of Nuclear Physics, Lund University, Sweden; [4]Department of Chemistry, University of Helsinki, Finland; [5]National Synchrotron Radiation Laboratory, University of Science and Technology of China, Hefei, China; [6]Clean Combustion Research Center, King Abdullah University of Science and Technology, Thuwal, Saudi Arabia

15:30-17:00 CONFERENCE I HALL

AT-3: Transportation aerosol emissions and control technologies

Chairs: **Georgia Kastrinaki (GREECE), Jana Moldanova (SWEDEN)**

15:30-16:00 **AT-3-KT | KEYNOTE TALK:** Forty Years of Combustion Engine Particulate Filter Technology
ATHANASIOS G. KONSTANDOPOULOS | Aristotle University, Department of Chemical Engineering, Aerosol & Particle Technology Laboratory, Thessaloniki, Greece

16:00-16:15

AT-3-01 | Combustion particles of different marine fuels: genotoxic and mutagenic potential towards human lung cells and evaluation of a wet-scrubber regarding particle removal efficiency

SEONGHO JEONG[1], Jan Bendl[2], Uwe Käfer[1], Mohammad Saraji-Bozorgzad[2], Jana Pantzke[1], Svenja Offer[1], Uwe Etzien[3], Gert Jakobi[1], Martin Bauer[1], Hendryk Czech[1], Christopher Rüger[1], Thorsten Streibel[1], Sebastiano Di Bucchianico[1], Martin Sklorz[1], Bert Buchholz[3], Thomas Adam[1,2], Ralf Zimmermann[1] | [1]Joint Mass Spectrometry Center (JMSC) at Comprehensive Molecular Analytics (CMA), Helmholtz Zentrum München and University of Rostock, Munich and Rostock, Germany; [2]University of the Bundeswehr Munich, Faculty for Mechanical Engineering, Institute of Chemical and Environmental Engineering, Neubiberg, Germany; [3]Chair of Piston Machines and Internal Combustion Engines, University of Rostock, Germany

16:15-16:30

AT-3-02 | Emissions of a new generation aircraft engine using 100 % sustainable aviation fuel

ISMAEL ORTEGA COLOMER[1], Rafael Berrellon-Vernay[1], David Delhaye[1], Louise Ganeau[1], Mickael Sicard[1], Frederic Ser[1], Cristian Focsa[2], Emmanuel Greslin[3], Laurent Darbois[3], Cedric Buisine[3], Lise Ceballos[3] | [1]ONERA, Palaiseau, France; [2]University of Lille, France; [3]Safran Aircraft Engines, Moissy-Cramayel, France

16:30-16:45

AT-3-03 | Assessment of ground-level non-volatile particulate matter mass emissions with an Airbus A350 burning conventional and 100% sustainable jet fuel

Joel Corbin[1], Brett Smith[1], TIMOTHY SIPKENS[1], Prem Lobo[1], Tobias Schripp[2], Tobias Grein[2], Linda Bondorf[2], Patrick LeClercq[2], Paul Williams[3],[4], Frederic Gass[5], Ashog Kulathasan[5], Alexandre Armand[5], Emiliano Requena Esteba[5], Mark Johnson[6], Mohssen Schafai[7], Greg Smallwood[1] | [1]National Research Council Canada, Ottawa, Canada; [2]German Aerospace Center, Stuttgart, Germany; [3]School of Natural Sciences, University of Manchester, United Kingdom; [4]National Centre for Atmospheric Science, The University of Manchester, United Kingdom; [5]Airbus, Toulouse, France; [6]Rolls Royce Plc., London, United Kingdom; [7]Airbus, Hamburg, Germany

16:45-17:00

AT-3-04 | Measurement campaign for characterisation and monitoring of emissions from vessel with alternative fuels and NOx emission control

JANA MOLDANOVA[1], Hilkka Timonen[2], Pauli Simonen[3], Grazia M. Lazafame[4], Ruud Verbeek[5], Nikolaos Kousias[6], Håkan Salberg[1], Luca Merelli[1], Luis Barreira[2], Kimmo Teinilä[2], Sanna Saarikoski[2], Lassi Markkula[3], Joni Kalliokoski[3], Barbara D'Anna[4], Brice Temime-Roussel[4], Leonidas Ntziachristos[3],[6] | [1]IVL, Swedish Environmental Research Institute, Gothenburg, Sweden; [2]Atmospheric Composition Research, Finnish Meteorological Institute, Helsinki, Finland; [3]Aerosol Physics Laboratory, Physics Unit, Tampere University, Finland' [4]Aix Marseille University, France; [5]Department of Sustainable Transport and Logistics, TNO, Den Haag, Netherlands; [6]Laboratory of Applied Thermodynamics, Aristotle University of Thessaloniki, Greece

BACKUP TALK

AT-P4-018 | Measurement of vehicle nanoparticle emissions from hundreds of vehicles with the on-road chase method

PANU KARJALAINEN[1], Henri Oikarinen[2], Petteri Marjanen[1], Aarne Kiviniemi[1], Leonardo Negri[1], Stanislav Demyanenko[1], Ville Leinonen[2], Sampsa Martikainen[1], Santtu Mikkonen[2], Miska Olin[1] | [1]Tampere University, Finland; [2]University of Eastern Finland, Kuopio, Finland

BACKUP TALK

AT-P1-038 | Plug-In Aero-Manufacture of Nanobulges for an In-Place Anticoronaviral on Air Filters

JISOO CHOI[1], Gihyeon Yu[1], Jaeho Oh[1], Sanggwon An[1], Jungho Hwang[1], Jeong Hoon Byeon[2] | [1]Department of Mechanical Engineering, Yonsei University, Seoul, Korea; [2]Department of Mechanical Engineering, Yeungnam University, Gyeongsan, Korea

17:00-19:00 **POSTER AREAS 1-2-3**

Poster Session 1

(see pages 88-110)

19:00-20:00 **TRIANTI HALL**

WG2 (ATAS) Meeting

19:00-20:00 **MULTIPURPOSE HALL**

WG3 (AMT) Meeting

19:00-20:00 **MC3 HALL**

WG4 (AH) Meeting

19:00-20:00 **MC2 HALL**

WG1 (AT) Meeting

19:00-20:00 **CONFERENCE I HALL**

WG5 (BAP) Meeting

08:00-21:00 **FOYER ENTRANCE NEW BUILDING**

Registration

08:45-10:00 **TRIANTI HALL**

Plenary Talk 2: Single-particle Raman spectroscopy in studying multiphase reactions of atmospheric particulates

Chairs: **Nikolaos Mihalopoulos** (GREECE), **Spyros Pandis** (GREECE)
Speaker: **Chak K. Chan |** City University of Hong Kong, Hong Kong

10:00-10:30 **TRIANTI HALL**

Awards Ceremony 1
Nikolai Albertovich Fuchs Memorial Award (IARA) & Smoluchowski Award (GAeF)

Panel: **Christof Asbach** (GERMANY), **Takafumi Seto** (JAPAN), **Birgit Wehner** (GERMANY)

10:30-11:00

Coffee Break

11:00-12:30 **TRIANTI HALL**

ATAS-7: Chemistry in a multiphase aerosol system

Chairs: **Maria Kanakidou** (GREECE), **Manolis Romanias** (FRANCE)

11:00-11:15 **ATAS-7-01 |** Investigating the Source of a Large Burst of Hydroxyl Radicals in Simulated Cloud Droplets
STEVEN CAMPBELL, Chris La, Jiaqi Shen, Catherine Banach, Suzanne Paulson | University of California, Los Angeles (UCLA), USA

11:15-11:30 **ATAS-7-02 |** Effect of diesel engine exhaust on the photochemical aging of wood combustion aerosol
HENDRYK CZECH[1], Petri Tiitta[3], Anni Hartikainen[3], Pasi Yli-Pirilä[3], Jarkko Tissari[3], Ari Leskinen[3], Dr. Jorma Jokiniemi[3], Ralf Zimmermann[1,2], Olli Sippula[3,4] | [1]Helmholtz Munich, Germany; [2]University of Rostock, Germany; [3]University of Eastern Finland, Kuopio, Finland; [4]University of Eastern Finland, Joensuu, Finland

11:30-11:45 **ATAS-7-03 |** Chemical Transformation of a Long-Chain Alkyl Organosulfate via Heterogeneous OH Oxidation: Case Study of Dodecyl Sulfate
SZE-IN MADELEINE NG[1], Kwan Hung Ng[2], Pui Wo Felix Yeung[2], Rongshuang Xu[1], Pui-Kin So[3], Yuanlong Huang[4], Jian Zhen Yu[5], Chun Kit K. Choi[6], Ying-Lung Steve Tse[2], Man Nin Chan[1,7] | [1]Earth System Science Programme, Faculty of Science, The Chinese University of Hong Kong, Hong Kong; [2]Department of Chemistry, The Chinese University of Hong Kong, Hong Kong; [3]The University Research Facility in Life Sciences, The Hong Kong Polytechnic University, Hong Kong; [4]Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena, USA; [5]Department of Chemistry, The Hong Kong University of Science and Technology, Hong Kong; [6]Department of Chemical Pathology, The Chinese University of Hong Kong, Hong Kong; [7]The Institute of Environment, Energy and Sustainability, The Chinese University of Hong Kong, Hong Kong

11:45-12:00 **ATAS-7-04 |** Surfactant Effects on Direct Photochemistry in Aqueous-Phase Glyoxal/Ammonium Sulphate Hanging Droplet Aerosol Mimics
D. Fertil, JOSEPH L. WOO | Lafayette College, Easton, USA

12:00-12:15 **ATAS-7-05 |** Heterogeneous Interaction of Glyoxal with natural dusts and mineral surrogates

MANOLIS ROMANIAS[1], Antonia Zogka[1], Vassileios Papadimitriou[2,3], Frédéric Thevenet[1], Michel Rossi[4] | [1]IMT-Nord-Europe, Douai, France; [2]Laboratory of Photochemistry and Chemical Kinetics, Department of Chemistry, University of Crete, Heraklion, Greece; [3]Chemical Sciences Laboratory, National Oceanic and Atmospheric Administration, Boulder CO, USA; [4]École Polytechnique Fédérale de Lausanne (EPFL), ENAC IIE GR-LUD, Lausanne, Switzerland

12:15-12:30 **ATAS-7-06 |** Tight Coupling of Surface and In-Plant Biochemistry and Convection Governs Key Fine Particulate Components over the Amazon Rainforest

MANISHKUMAR SHRIVASTAVA, Quazi Z. Rasool, Bin Zhao, Mega Octaviani, Rahul A. Zaveri, Alla Zelenyuk, Brian Gaudet, Ying Liu, John E. Shilling, Johannes Schneider, Christiane Schulz, Martin Zoger, Scot T. Martin, Jianhuai Ye, Alex Guenther, Rodrigo F. Souza, Manfred Wendisch, Ulrich Poschl | Pacific Northwest National Laboratory, Richland, USA

11:00-12:30 **MULTIPURPOSE HALL**

SS-1: Quantification of health risk from airborne particulate pollutants

Chairs: **Paola Crippa** (USA), **Konstantina Vasilatou** (SWITZERLAND)

11:00-11:15 **SS-1-01 |** The organic coating unit, an all-in-one system for reproducible generation of secondary organic aerosol

ALEJANDRO KELLER[1], Daniel Kalbermatter[2], Patrick Specht[1], Peter Steigmeier[1], Kate Wolfer[3], Julian Resch[3], Markus Kalberer[3], Tobias Hammer[2], Konstantina Vasilatou[2] | [1]University of Applied Sciences Northwestern Switzerland, Windisch, Switzerland; [2]Federal Institute of Metrology METAS, Bern-Wabern, Switzerland; [3]University of Basel, Switzerland

11:15-11:30 **SS-1-02 |** Differential cytotoxic responses of respiratory cells to aerosol exposure at the air-liquid-interface

NILOFAR FARUQUI[1], Krzysztof Ciupek[1], Julia Dobric[2], Alejandro Keller[3], Konstantina Vasilatou[4], Terry Tetley[5], Jenny Rissler[2], Ian Mudway[5], Anna-Karin Larsson-Callerfelt[6], Michael Shaw[1,7] | [1]National Physical Laboratory, Teddington, United Kingdom; [2]Ergonomics and Aerosol Technology, Faculty of Engineering, Lund University, Sweden; [3]Institute for Sensors and Electronics, Swiss University of Applied Sciences and Arts Northwestern Switzerland, Windisch, Switzerland; [4]Laboratory Particles and Aerosols, Federal Institute of Metrology METAS, Wabern-Bern, Switzerland; [5]Faculty of Medicine, Imperial College London, United Kingdom; [6]Department of Experimental Medical Sciences, Lund University, Sweden; [7]Department of Computer Science, University College London, United Kingdom

11:30-11:45 **SS-1-03 |** Toxicity screening of airborne particles in cell and lung tissue cultures linked to adverse health effects

Nilofar Faruqui[1], Sofie Orell[2], Zaira Leni[3], Jenny Rissler[4], Camilla Dondi[1], Daniel Kalbermatter[5], Linda Elowsson[2], Konstantina Vasilitou[5], Ian Mudway[6], Monica Kåredal[7], Michael Shaw[1,8], ANNA-KARIN LARSSON-CALLERFELT[2] | [1]Department of Chemical & Biological Sciences, National Physical Laboratory, Teddington, United Kingdom;, [2]Department of Experimental Medical Science, Lung Biology, Lund University, Sweden; [3]Bern University, Switzerland; [4]Ergonomics and Aerosol Technology, LTH, Lund University, Sweden; [5]Federal Institute of Metrology METAS, Bern-Wabern, Switzerland; [6]Respiratory Toxicology, Imperial College London, United Kingdom; [7]Occupational and Environmental Medicine, Laboratory Medicine, Lund University, Sweden; [8]Department of Computer Science, University College London, United Kingdom

11:45-12:00 **SS-1-04 |** Assessment of air pollution impacts: combining high-resolution air pollution modelling and socio-economic data

CAMILLA GEELS[1], Anna Strandell[2], Lise Frohn[1], Johan Nilsson Sommar[3], Ole Raaschou-Nielsen[4], Ulla Hvidtfeldt[4], Ulas Im[1], Jesper Christensen[1], Jørgen Brandt[1] | [1]Aarhus University, Roskilde, Denmark; [2]Finnish Environment Institute, Helsinki, Finland; [3]Umeå University, Sweden; [4]Danish Cancer Society Research Center, Copenhagen, Denmark

12:00-12:15 **SS-1-05 |** A hybrid modeling-observational approach to characterize the uncertainty of air pollution health impact assessments
PAOLO GIANI, Paola Crippa | University of Notre Dame, USA

12:15-12:30 **SS-1-06 |** Actual and perceived wood combustion pollution – The case of a rural mountainous area
KRISTINA GLOJEK[1], Griša Močnik[2], Honey Dawn C. Alas[3], Andrea Cuesta-Mosquera[3], Luka Drinovec[2], Asta Gregorič[2,4], Kay Weinhold[3], Thomas Müller[3], Martin Rigler[4], Dominik van Pinxteren[3], Hartmut Herrmann[3], Martina Ristorini[5], Mike Merkel[3], Matej Ogrin[1], Dejan Cigale[1], Alfred Wiedensohler[3] | [1]Department of Geography, Faculty of Arts, University of Ljubljana, Slovenia; [2]University of Nova Gorica, Slovenia; [3]Leibniz Institute for Tropospheric Research, Germany; [4] Aerosol d.o.o., Ljubljana, Slovenia; [5] Department of Bioscience and Territory, University of Molise, Pesche (IS), Italy

BACKUP TALK **SS1-P1-008 |** Application of Mobile Aerosol Lung Deposition Apparatus (MALDA) on Estimation of Respiratory Deposited Doses for Hazardous Substances Contained in Ultrafine Particles
WEI-CHUNG SU, Jinho Lee | University of Texas Health Science Center at Houston, USA

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11:00-12:30 MC3 HALL

ATAS-8: Radiative impacts of aerosols

Chairs: **Nikolaos Hatzianastassiou** (GREECE), **Daniel Partridge** (UNITED KINGDOM)

11:00-11:15 **ATAS-8-01 |** Radiative response and aerosol composition changes in global model EC-Earth3 from two new-particle-formation schemes
CARL SVENHAG, Moa Sporre, Pontus Roldin, Lars Nieradzik | Lund University, Sweden

11:15-11:30 **ATAS-8-02 |** The use of atmospheric radionuclides as tracers of atmospheric processes: what can we learn about aerosol transport?
ERIKA BRATTICH[1], Miguel-Angel Hernández-Ceballos[2], José-Antonio Garcia Orza[3], Juan Pedro Bolívar[4], Pietro Morozzi[5], Angela Marinoni[6], Paolo Bonasoni[6], Paolo Cristofanelli[6], Alessandro Zappi[5], Laura Tositti[5] | [1]Department of Physics and Astronomy «Augusto Righi» Università di Bologna, Italy; [2]Department of Physics, University of Cordoba, Spain; [3]SCOLAb, Fisica Aplicada, University Miguel Hernandez, Elche, Spain; [4]Department of Applied Physics, University of Huelva, Spain; [5]Department of Chemistry «G. Ciamician», University of Bologna, Italy; [6]National Research Council, Institute of Atmospheric Sciences and Climate, Bologna, Italy

11:30-11:45 **ATAS-8-03 |** Direct radiative effects of Mediterranean dust episodes
MARIA GAVROUZOU[1], Nikolaos Hatzianastassiou[1], Marios Bruno Korras-Carraca[1], Christos Lolis[1], Christos Matsoukas[2], Nikos Mihalopoulos[3,4], Ilias Vardavas[5] | [1]Laboratory of Meteorology, Department of Physics, University of Ioannina, Greece; [2]Department of Environment, University of the Aegean, Mytilene, Greece; [3]Institute for Environmental Research and Sustainable Development (IERSD), NOA, Athens, Greece; [4]Environmental Chemical Processes Laboratory, Department of Chemistry, University of Crete, Heraklion, Greece; [5]Department of Physics, University of Crete, Heraklion, Greece

11:45-12:00 **ATAS-8-04 |** Evaluation of the aerosol radiative effects based on GAME model and GRASPpac retrievals applied to AERONET/ICENET stations
ELENA BAZO[1,2], María José Granados-Muñoz[1,2], Roberto Román[3], Juan Antonio Bravo-Aranda[1,2], Alberto Cazorla[1,2], Antonio Valenzuela[1,2], Francisco José Olmo[1,2], Lucas Alados-Arboledas[1,2] | [1]Andalusian Inter-University Institute for Earth System Research (IISTA-CEAMA), Granada, Spain; [2]Department of Applied Physics, University of Granada, Spain; [3]Group of Atmospheric Optics (GOA-UVa), University of Valladolid, Spain

12:00-12:15 **ATAS-8-05 |** The present and future shortwave radiative forcing of tyre and brake wear microplastics

NIKOLAOS EVANGELIOU[1], Arve Kylling[1], Sabine Eckhardt[1], Andreas Stohl[2] | [1]NILU-Norwegian Institute for Air Research, Kjeller, Norway; [2]University of Vienna, Department of Meteorology and Geophysics, Vienna, Austria

12:15-12:30 **ATAS-8-06 |** Implementation of the ISORROPIA-lite aerosol thermodynamics model into the EMAC chemistry climate model: Implications for aerosol composition, acidity, and radiative forcing

ALEXANDROS MILOUSIS[1], Alexandra Tsimpidi[1], Holger Tost[2], Spyros Pandis[3], Athanasios Nenes[4], Astrid Kiendler-Scharr[1], Vlassis Karydis[1] | [1]Forschungszentrum Juelich, IEK Troposphere [8], Institute for Energy & Climate Research, Juelich, Germany; [2]Johannes Gutenberg University Mainz, Institute for Atmospheric Physics, Mainz, Germany; [3]Institute of Chemical Engineering Sciences, FORTH ICEHT, Patras, Greece; [4]Ecole Polytechnique Fed Lausanne, School of Architecture Civil & Environmental Engineering Lab, Atmospheric Processes & Their Impacts, Lausanne, Switzerland

BACKUP TALK **BAP-P4-006 |** Long-term characterization of the Athens background aerosol optical properties

KONSTANTINOS GRANAKIS[1,2], Stergios Vratolis[1], Prodromos Fetfatzis[1], Chris Tzanis[2], Konstantinos Eleftheriadis[1] | [1]ERL, Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, National Centre for Scientific, Athens, Greece; [2]Climate and Climatic Change Group, Section of Environmental Physics and Meteorology, Department of Physics, National and Kapodistrian University of Athens, Greece

11:00-12:30 MC2 HALL

AH-2: Novel metrics and tools

Chairs: **Angeliki Karanasiou** (SPAIN), **Vânia Martins** (PORTUGAL)

11:00-11:15 **AH-2-01 |** Evidence of stockpile contamination for PCBs and legacy OCPs in the urban environment of Cyprus (Eastern Mediterranean): Influence of temperature/wind speed on atmospheric levels variability and gas/particle partitioning based on equilibrium and steady-state models

MINAS IAKOVIDES[1], Konstantina Oikonomou[1], Jean Sciare[1], Nikos Mihalopoulos[1,2,3], Euripides G. Stephanou[1,3] | [1]Climate and Atmosphere Research Center, The Cyprus Institute, Nicosia, Cyprus; [2]Chemistry Department, University of Crete, Heraklion, Greece; [3]Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece

11:15-11:30 **AH-2-02 |** Airborne microplastic particle concentrations and characterization in indoor urban microenvironments

ANA TORRES-AGULLO, Angeliki Karanasiou, Teresa Moreno, Silvia Lacorte | Spanish Research Council, Barcelona, Spain

11:30-11:45 **AH-2-03 |** Airborne microplastics in urban areas

GIUSEPPINA ZURI, Angeliki Karanasiou, Silvia Lacorte | IDAEA-CSIC, Barcelona, Spain

11:45-12:00 **AH-2-04 |** On-Line Measurements of Airborne Metals by Laser Vaporization Aerosol Mass Spectrometry in Neighborhoods with a Mobile Laboratory

EDWARD FORTNER[1], Ben Werden[1], Tara Yacovitch[1], Conner Daube[1], Rob Roscioli[1], Scott Herndon[1], Sina Hasheminassab[2], Olga Pikelnaya[2], Mina Tehrani[3], Pete DeCarlo[3] | [1]Aerodyne Research Incorporated, Pepperell, USA; [2]South Coast Air Quality Management District, Diamond Bar, USA; [3]Johns Hopkins University, Baltimore, USA

12:00-12:15 **AH-2-05 |** The dispersion of aerosols in indoor venues - An investigation using the novel measurement system ATMoS and CFD simulations

FELIX HEHNEN[1], Isabell Schulz[1], Ümit Hasirci[1], Mareike Geisler[4], Sebastian Schimek[2], Kevin Lausch[3], Gerrid Brockmann[3], Martin Kriegel[3], Oliver Paschereit[3], Ullrich Kertzscher[1], Stefan Moritz[4] | [1]Biofluid Mechanics Laboratory, Institute of Computer-assisted Cardiovascular Medicine, Charité - Universitätsmedizin Berlin, Germany; [2]Institute of Fluid Dynamics and Technical Acoustics, Hermann-Föttinger-Institute, Chair of Fluid Dynamics, TU Berlin, Germany; [3]Hermann-Rietschel-Institute, TU Berlin, Germany; [4]Clinical Infectiology, University Medicine Halle, Germany

12:15-12:30 **AH-2-06 |** Determination of Surface Area concentration in an urban background site in Athens

STAVROS CHERISTANIDIS[1,2], Stergios Vratolis[3], Maria Gini[3], Daphne Parliari[2], Archontoula Chaloulakou[1], Dimitrios Melas[2] | [1]School of Chemical Engineering, National Technical University of Athens, Greece; [2]Department of Physics, Aristotle University of Thessaloniki, Greece; [3]Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, NCSR Demokritos, Athens, Greece

BACKUP TALK

AH-eP1-004 | In-silico medical aerosol delivery to spontaneously-breathing paediatric patients with artificial airways

NATALIE ANDERSON[1,2,3], Britta Regli-von Ungern-Sternberg[4,5], Ryan Mead-Hunter[1], Andrew King[6], Alexander Larcombe[1,3], Ben Mullins[1] | [1]Curtin School of Population Health, Curtin University, Perth, Australia; [2]Perioperative Medicine, Telethon Kids Institute, Perth, Australia; [3]Wal-yan Respiratory Research Centre, Telethon Kids Institute, Perth, Australia; [4]Division of Emergency Medicine, Anesthesia and Pain Medicine, Medical School, University of Western Australia, Perth, Australia; [5]Department of Anaesthesia and Pain Management, Perth Children's Hospital, Australia; [6]Fluid Dynamics Research Group, School of Civil and Mechanical Engineering, Curtin University, Perth, Australia

11:00-12:30 CONFERENCE I HALL

ATAS-9: Transport of aerosols: Modelling and observations

Chairs: **Martine Collaud Coen** (SWITZERLAND), **Jonilda Kushta** (CYPRUS)

11:00-11:15 **ATAS-9-01 |** Lagrangian Evaluation of UKESM1 and ECHAM6.3-HAM2.3 simulation of 2014 eruption at Holuhraun

ELIZA DUNCAN[1], George Jordan[2], Andy Jones[2], Florent Malavelle[2], Duncan Watson-Parris[3], James Haywood[1], Alistair Sellar[2], João Teixeira[2], Zak Kipling[4], Paul Kim[1], Daniel Partridge[1] | [1]University of Exeter, United Kingdom; [2]UK Met Office, Exeter, United Kingdom; [3]University of Oxford, United Kingdom; [4]European Centre for Medium-Range Weather Forecasts, Reading, United Kingdom

11:15-11:30 **ATAS-9-02 |** Multi fidelity aerosol ensemble and machine learning an emulator for biomass burning plume heights in the PermaStrom Project using ICON-ART

NIKOLAS PORZ, Vanessa Bachmann, Jochen Förstner, Stefanie Hollborn, Axel Seifert, Thorsten Steinert | Deutscher Wetterdienst DWD, Offenbach, Germany

11:30-11:45 **ATAS-9-03 |** Improving Understanding of Mineral Dust Transport and Deposition Using Observations and Modelling

NATALIE RATCLIFFE[1], Claire Ryder[1], Nicolas Bellouin[1], Stephanie Woodward[2], Anthony Jones[2], Ben Johnson[2], Bernadett Weinzierl[3], Josef Gasteiger[3], Lisa-Maria Wieland[3] | [1]University of Reading, United Kingdom; [2]Met Office, Exeter, United Kingdom; [3]University of Vienna, Austria

11:45-12:00 **ATAS-9-04 |** Impact of Aeolus wind assimilation on modelling of mineral dust mobilization and transport over the Mediterranean

JONILDA KUSHTA[1], Pantelis Kiriakidis[1], Theodoros Christoudias[1], Antonis Gkikas[2], Georgios Papaggelis[2], Emmanouil Proestakis[2], Eleni Marinou[2], Anna Gialitaki[2], Angela Benedetti[3], Michael Rennie[3], Anne Grete Straume[4], Vassilis Amiridis[2], Jean Sciare[1] | [1]The Cyprus Institute, Nicosia, Cyprus; [2]National Observatory of Athens, Greece; [3]European Centre for Medium range Weather Forecasts, Reading, United Kingdom; [4]European Space Agency, Noordwijk, Netherlands

12:00-12:15 **ATAS-9-05 |** Lagrangian assessment of the aerosol life cycle in climate models: an AeroCom Phase III multi-model evaluation

PAUL KIM[1], Zak Kipling[2], Mohit Dalvi[3], Anthony Jones[3], Srinath Krishnan[4], Thomas Kuhn[5], David Neubauer[6], Hamish Struthers[7], Joao Teixeira[1,3], Kostas Tsigaridis[8,9], Duncan Watson-Parris[10], Yang Yang[11], Jialei Zhu[12], James Haywood[1,3], Daniel Partridge[1] | [1]University of Exeter, United Kingdom; [2]European Centre for Medium-Range Weather Forecasts, Reading, United Kingdom; [3]Met. Office Hadley Centre, Exeter, United Kingdom; [4]Stockholm University, Sweden; [5]Finnish Meteorological Institute, Helsinki, Finland; [6]Institute of Atmospheric and Climate Science, ETH, Zurich, Switzerland; [7]National Supercomputer Centre, Linköping, Sweden; [8]Centre for Climate Systems Research, New York, USA; [9]NASA Goddard Institute for Space Studies, New York, USA; [10]University of Oxford, United Kingdom; [11]Nanjing University, China; [12]University of Michigan, USA

12:15-12:30 **ATAS-9-06 |** Aerosol effects on the absorptivity in North subtropical area

OUASSILA SALHI[1], Mohammed Diouri[1], Mohammed Amine Moussaoui[1], Rajae Meziane[1], Abdelmoula Ben-Tayeb[1,2] | [1]Atmospheric Physic Team, Faculty of Science, Mohammed [1]st University, Oujda, Morocco; [2]Mechanical Engineering Department, Faculty of Sciences and Technologies, Moulay Slimane University, Beni-Mellal, Morocco

BACKUP TALK

ATAS-P4-029 | Evidence of oriented smoke particles in the atmosphere over Cyprus

MARIA KEZOUDI[1], Constantina Rousogenous[1], Alkistis Papetta[1], Franco Marenco[1,3], Christos Keleshis[1], Frank G. Wienhold[3], Michalis Vrekoussis[1,4], Thorsten Warneke[4], Justus Notholt[4], Jean Sciare[1] | [1]Climate and Atmosphere Research Centre (CARE-C), The Cyprus Institute, Nicosia, Cyprus; [2]Met Office, Exeter, United Kingdom; [3]Institute for Atmospheric and Climate Science (IAC), University of Zurich, Switzerland; [4]Institute of Environmental Physics, IUP, University of Bremen, Germany

12:30-13:30

Lunch Break

12:30-13:30 MC2 HALL

EAA Aerosol Research J. Group

12:30-13:30 MC3.4 HALL

IARA Board Meeting

13:30-15:00 TRIANTI HALL

ATAS-10: Chemical profiling of organic aerosols at the molecular level

Chairs: **Claudia Mohr** (SWEDEN), **Yue Zhang** (USA)

13:30-13:45 **ATAS-10-01 |** Offline characterization of particulate matter with FIGAERO-CIMS: characterization and best practices

JING CAI[1], Cheng Wu[2], Feixue Zheng[3], Wei Du[1], Sophie Haslett[2], Markku Kulmala[1,3], Kaspar R. Daellenbach[1,4], Claudia Mohr[2] | [1]Institute for Atmospheric and Earth System Research, Faculty of Science, University of Helsinki, Finland; [2]Department of Environmental Science, Stockholm University, Sweden; [3]Aerosol and Haze Laboratory, Beijing Advanced Innovation Center for Soft Matter Science and Engineering, Beijing University of Chemical Technology, China; [4]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, Switzerland

13:45-14:00 **ATAS-10-02 |** Molecular composition and volatility of SOA formed from a mixture of isoprene, α-pinene, and β-caryophyllene
LINYU GAO, Harald Saathoff, Junwei Song, Feng Jiang | Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology, Germany

14:00-14:15 **ATAS-10-03 |** In-situ chemical characterization of summertime cloud residuals at the Zeppelin Observatory, Svalbard, using FIGAERO-CIMS
YVETTE GRAMLICH[1,2], Karolina Siegel[1,2,3], Sophie Haslett[1,2], Gabriel Freitas[1,2], Radovan Krejci[1,2], Paul Zieger[1,2], Claudia Mohr[1,2] | [1]Department of Environmental Science, Stockholm University, Sweden; [2]Bolin Centre for Climate Research, Stockholm University, Sweden; [3]Department of Meteorology, Stockholm University, Sweden

14:15-14:30 **ATAS-10-04 |** Formation of secondary organic aerosol from Sitka Spruce emissions
HAYLEY FURNELL[1], Julien Kammer[2], Astrid Wingler[1], Kieran Kilcawley[3], David Mannion[3], Dean Venables[1], John Wenger[1] | [1]University College Cork, Ireland; [2]Aix Marseille University, France; [3]Tagasc Food Research Centre, Fermoy, Cork, Ireland

14:30-14:45 **ATAS-10-05 |** Direct observations of oxidized organic molecules from Amazonia
Qiaozhi Zha[1], Diego Aliaga[1], Radovan Krejci[2], Victoria Sinclair[1], Cheng Wu[2], Douglas Worsnop[1,3], Claudia Mohr[2], FEDERICO BIANCHI[1] | [1]Institute for Atmospheric and Earth System Research / Physics, University of Helsinki, Finland; [2]Department of Environmental Science & Bolin Centre for Climate Research, Stockholm University, Sweden; [3]Aerodyne Research, Inc., Billerica, USA

14:45-15:00 **ATAS-10-05 |** Chemical Profiling and Emission Factors of Primary Organic Aerosols from Biomass Burning of Crop Residue
ELENA HARTNER[1], Jürgen Orasche[1], Dac-Loc Nguyen[1], Thomas Gröger[1], Hendryk Czech[1], Gert Jakobi[1], Petri Tiitta[2], Pasi Yli-Pirilä[2], Miika Kortelainen[2], Olli Sippula[2], Pf. Patricia Forbes[3], Ralf Zimmermann[1] | [1]Joint Mass Spectrometry Centre of the University Rostock and the Helmholtz Zentrum München, Munich and Rostock, Germany; [2]University of Eastern Finland, Kuopio, Finland; [3]University of Pretoria, South Africa

BACKUP TALK **ATAS-P5-051 |** Real-time Measurement of the Phase State of Complex Aerosol Particles by Combining Chemical Analysis with Volatility Distribution
Sining Niu[1], Sahir Gagan[1], Jordan Krechemer[2], YUE ZHANG[1] | [1]Texas A&M University, College Station, USA; [2]Aerodyne Research, Billerica, USA

13:30-15:00 MULTIPURPOSE HALL

AMT-3: Particle detection by optical and condensational means

Chairs: **Oliver F. Bischof** (GERMANY), **Gerhard Steiner** (GERMANY)

13:30-13:45 **AMT-3-01 |** Simulation-aided characterization of a vWCPC for atmospheric application
FAN MEI[1], Steven Spielman[2], Susanne Hering[2], Jian Wang[3], Mikhail Pekour[1], Gregory Lewis[2], Beat Schmid[1], Jason Tomlinson[1], Maynard Havlicek[4], Weixing Hao[5], Yang Wang[6] | [1]Pacific Northwest National Laboratory, Richland, USA; [2]Aerosol Dynamics Inc, Berkeley, USA; [3]Washington University in St. Louis, USA; [4]TSI inc., Shoreview, USA; [5]University of Missouri, USA; [6]University of Miami, USA

13:45-14:00 **AMT-3-02 |** Continuous particle number concentration determination of ambient air in measurement networks
GERHARD STEINER[1], Markus Pesch[1], Friedhelm Schneider[1], Torsten Bayer[2], Michael Schüler[2], Katharina Roloff[2] | [1]Grimm Aerosol Technik, Ainring, Germany; [2]Environmental Agency Saxony-Anhalt, Magdeburg, Germany

14:00-14:15 **AMT-3-03 |** Influence of concentration and dilution of atomized salt particles on the counting efficiency of 23-nm automotive condensation particle counters
HELMUT KRASA, Martin Kupper, Mario Anton Schriefl, Alexander Bergmann | Graz University of Technology, Austria

14:15-14:30 **AMT-3-04 |** Calibration of Condensation Particle Counters for Reduced Pressure Applications
OLIVER F. BISCHOF[1,2], P. Weber[1], U. Bundke[1], A. Petzold[1], A. Kiendler-Scharr[1] | [1]Forschungszentrum Jülich, Germany; [2]TSI GmbH, Aachen, Germany

14:30-14:45 **AMT-3-05 |** Characterization of microplastics using fluorescence spectroscopy and an online light induced fluorescence particle detector
JÜRGEN GRATZL, Teresa M. Seifried, Ayse Koyun, Hinrich Grothe | TU Vienna, Austria

14:45-15:00 **AMT-3-06 |** Implementation of Laser Diagnostics in Reactive Spray Deposition Technology (RSDT) for the Characterization of Catalyst Nanoparticles
EVANGELOS K. STEFANIDIS, Thomas A. Ebaugh, Stoyan Bliznakov, Leonard J. Bonville, Radenka Maric, Francesco Carbone | University of Connecticut, Storrs, USA

BACKUP TALK **AMT-P1-020 |** A Diethylene Glycol Booster for nanoparticle characterization using water-based condensation particle counters
GREGORY LEWIS, Luis Javier Perez-Lorenzo, Michel Attoui, Juan Fernandez de la Mora, Arantza Eiguren Fernandez | Aerosol Dynamics Inc., Berkeley, USA

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13:30-15:00 **MC3 HALL**

ATAS-11: Chemical characterization of atmospheric carbonaceous aerosols

Chairs: **Hiroshi Okochi** (JAPAN), **Jean Sciare** (CYPRUS)

13:30-13:45 **ATAS-11-01 |** Occurrence, behavior, fate, and health impact of airborne microplastics (2): Characteristics of AMPs at the summit of Mt. Fuji in the free troposphere
Norihisa Yoshida[1], HIROSHI OKOCHI[1], Yuto Tani[1], Hiroshi Hayami[1], Masaki Takeuchi[2], Atsuyuki Sorimchi[3], Yusuke Fujii[4], Norimichi Takenaka[4], Takashi Yamaguchi[5], Naoya Katusmi[6], Atsushi Matsuki[7], Mizuo Kajino[8], Kouji Adachi[8], Yasuhiro Ishihara[9], Yoko Iwamoto[9], Yasuhiro Niida[10] | [1]Waseda University, Tokyo, Japan; [2]Tokushima University, Japan; [3]Fukushima Medical University, Japan; [4]Osaka Prefecture University, Japan; [5]Hokkaido Research Organization, Japan; [6]Ishikawa Prefectural University, Japan; [7]Kanazawa University, Ishikawa, Japan; [8]Metrological Research Institute, Ibaraki, Japan; [9]Hiroshima University, Japan; [10]PerkinElmer Japan, Kanagawa, Japan

13:45-14:00 **ATAS-11-02 |** Characterization and night-time oxidation of pellet stove emissions
KALLIOPI FLOROU[1], K. Kodros J.[1], Marco Paglione[2], Spiro Jorga[3], Stefania Squizzato[1], Mauro Masiol[4], Petro Uruci[1,5], Athanasios Nenes[1,6], N. Pandis S.[1,5] | [1]Institute of Chemical Engineering Sciences (ICE-HT/ FORTH), Patras, Greece; [2]Institute of Atmospheric Sciences and Climate, Italian National Research Council, Bologna, Italy; [3]Department of Chemical Engineering, Carnegie Mellon University, Pittsburgh, USA; [4]Department of Environmental Sciences, Informatics and Statistics, Università Ca' Foscari, Venice, Italy; [5]Department of Chemical Engineering, University of Patras, Greece; [6]Laboratory of Atmospheric Processes and their Impacts, School of Architecture, Civil and Environmental Engineering, École Polytechnique Fédérale de Lausanne, Switzerland

14:00-14:15 **ATAS-11-03 |** Rapid chemical processing of urban emissions and production of secondary air pollutants in a tropical forest environment
BRUNO BACKES MELLER[1], Samara Carbone[2], Luciana V. Rizzo[3], Rodrigo Souza[4], Scot T. Martin[5], Joel F. de Brito[6], Paulo Artaxo[1] | [1]Institute of Physics - University of Sao Paulo, Brazil; [2]Agrarian Sciences Institute, Federal University of Uberlandia, Brazil; [3]Departmento de Ciencias Ambientais, Universidade Federal de Sao Paulo, Diadema, Brazil; [4]Department of Meteorology, Amazonas State University, Manaus, Brazil; [5]Harvard University, Cambridge, USA; [6]IMT Nord Europe, Institut Mines-Télécom, Université de Lille, Centre for Energy and Environment, France

14:15-14:30 **ATAS-11-04 |** Chemical and physical characterization of cloud residuals during fog events in the Italian Po Valley
FREDRIK MATTSSON[1,2], Almuth Neuberger[1,2], David Hadden[1,2], Sophie Haslett[1,2], Liine Heikkinen[1,2], Yvette Gramlich[1,2], Stefano Decesari[3], Marco Paglione[3], Matteo Rinaldi[3], Ilona Riipinen[1,2], Paul Zieger[1,2], Claudia Mohr[1,2] | [1]Department of Environmental Science, Stockholm University, Sweden; [2]Bolin Centre for Climate Research, Stockholm, Sweden; [3]Institute of Atmospheric Sciences and Climate, National Research Council, Bologna, Italy

14:30-14:45 **ATAS-11-05 |** Seasonal study of stable carbon and nitrogen isotopic composition in fine aerosols over Bhopal, central India
KAJAL YADAV[1], Ramya Sunder Rmana[1], Jayant Nirmalakar[2], Dhananjay Deshmukh[3], Md. Mozammel Haque[4] | [1]Indian Institute of Science Education and Research, Bhopal, India; [2]Korea Research Institute of Standards and Science, Yuseong-Gu, Korea; [3]Space Physics Laboratory, Vikram Sarabhai Space Centre, Thiruvananthapuram, India; [4]Yale-NUIST Center on Atmospheric Environment, Nanjing University of Information Science and Technology, China

14:45-15:00 **ATAS-11-06 |** Long-range transport of pesticides in aerosols over Europe
Ludovic Mayer[1], Petr Šenk[1], Petr Kukučka[1], Petra Přibylová[1], Amandine Durand[2], Sylvain Ravier[2], Andres Alastuey[3], Pernilla Bohlin-Nizetto[4], Darius Ceburnis[5], Sébastien Conil[6], Anna Degórska[7], Konstantinos Eleftheriadis[8], Grant Forster[9], Korbinian Freier[10], François Gheusi[11], Adela Holubová Šmejkalová[12], Urmas Hõrrak[13], Christoph Hueglin[14], Heikki Junninen[13], Adam Kristensson[15], Olav Lien[4], Reidar Lyngra[4], Ulla Makkonen[16], Nikos Mihalopoulos[17], Veronika Mináriková[18], Wolfgang Moche[19], Tuukka Petäjä[20], Véronique Pont[11], Laurent Poulain[21], Etienne Quivet[2], Stefan Reimann[14], Ivan Simmons[22], Ronald Spoor[23], Kjetil Tørseth[4], Henri Wortham[2], Margarita Yela[24], Claudia Zellweger[14], Paolo Laj[20,25], Jana Klánová[1], Gerhard Lammel[1,26], CELINE DEGRENDELE[1,2] | [1]RECETOX, Masaryk University, Brno, Czech Republic; [2]LCE, Aix-Marseille University, France; [3]IDAEA, CSIC, Barcelona, Spain; [4]NILU, Kjeller, Norway; [5]Ryan Institute, National University of Ireland Galway, Ireland; [6]DRD/OPE, ANDRA, Bure, France; [7]Institute of Environmental Protection, National Research Institute, Warsaw, Poland; [8]ERL, Institute of Nuclear and Radiological Sciences and Technology, "Demokritos", Athens, Greece; [9]National Centre for Atmospheric Science, University of East Anglia, Norwich, United Kingdom; [10]LfU Bavarian Environment Agency, Augsburg, Germany; [11]Université Toulouse [3] Paul Sabatier, France; [12]Košetice Observatory, Czech Hydrometeorological Institute, Košetice, Czech Republic; [13]Institute of Physics, University of Tartu, Estonia; [14]Laboratory for Air Pollution and Environmental Technology, EMPA, Dübendorf, Switzerland; [15]Department of Physics, Lund University, Sweden; [16]Finnish Meteorological Institute, Helsinki, Finland; [17]Department of Chemistry, University of Crete, Heraklion, Greece; [18]Slovak Hydrometeorological Institute, Bratislava, Slovakia; [19]EAA Environment Agency Austria, Vienna, Austria; [20]INAR, University of Helsinki, Finland; [21]TROPOS Leibniz Institute for Tropospheric Research, Leipzig, Germany; [22]UKCEH Centre for Ecology & Hydrology, Penicuik, United Kingdom; [23]RIVM National Institute of Public Health and the Environment, Bilthoven, Netherlands; [24]National Institute for Aerospace Technology, Mazagón, Spain; [25]Institut des Géosciences de l'Environnement, Université Grenoble Alpes, France; [26]Multiphase Chemistry Department, Max Planck Institute for Chemistry, Mainz, Germany

13:30-15:00 **MC2 HALL**

BAP-3: Modelling aerosol processes I

Chairs: **Anthony Wexler** (USA), **Patrick Wollny** (GERMANY)

13:30-13:45 **BAP-3-01 |** Methods for Washing the Air
CHARLES CLEMENT[1,2], I. J. Ford[2] | [1]University College London, Wantage, United Kingdom; [2]Department of Physics and Astronomy, UCL, London, United Kingdom

13:45-14:00 **BAP-3-02 |** Shock-initiated fragmentation of n-dodecane nano-droplets: a molecular dynamics simulation
NIKOLAOS KATERIS, Ethan Genter, Hai Wang | Stanford University, Stanford CA, USA

14:00-14:15 **BAP-3-03 |** Finite element methods for the single and multicomponent General Dynamic Equation of Aerosols
TEEMU SALMINEN, Kari E.J. Lehtinen, Jari P. Kaipio, Aku Seppänen | Department of Applied Physics, University of Eastern Finland, Kuopio, Finland

14:15-14:30 **BAP-3-04 |** Numerical Investigation of Laminar Methane Flames doped with Iron(III) nitrate/1-butanol Aerosol in a novel Matrix Burner
MONIKA NANJAIAH[1], Patrick Wollny[1], Praveen Narasu[2], Sascha Apazeller[3], Hartmut Wiggers[3,4], Eva Gutheil[2], Christof Schulz[3,4], Irenaeus Wlokas[1,4] | [1]Fluid Dynamics, IVG, Institute for Combustion and Gas Dynamics, University of Duisburg-Essen, Germany; [2]Interdisciplinary Center for Scientific Computing, Heidelberg University, Germany; [3]Reactive Fluids, IVG, Institute for Combustion and Gas Dynamics, University of Duisburg-Essen, Germany; [4]CENIDE, Center for Nanointegration Duisburg-Essen, University of Duisburg-Essen, Germany

14:30-14:45 **BAP-3-05 |** Filtration performance prediction for submicron aerosol particles using deep neural networks
MAXIMILIAN KERNER, Robert Hesse, Sergiy Antonyuk | Institute of Particle Process Engineering / Technische Universität Kaiserslautern, Germany

14:45-15:00 **BAP-3-06 |** Investigation of the Rearrangement of Reactive-Inert Particle Structures at Different Temperatures in a Model Filter Channel of a Particulate Filter
JULIA THIERINGER, Jörg Meyer, Achim Dittler | Karlsruhe Institute of Technology, Germany

BACKUP TALK **BAP-P4-008 |** The effect of microstructured surfaces on the impaction of monodispersed polystyrene microsphere particles
ANTONELLA AL NAJJAR[1,2,3], Emmanuelle Algre[2], Frederic Marty[2], Charles Motzkus[3], Pierre Didier[1], Stephane Moularat[3], Evelyne Gehin[1] | [1]Univ Paris-Est Creteil, CERTES , Creteil, France; [2]Univ Paris-Est, ESYCOM (EA 2552), France; [3]CSTB, QSA division, Marne-la-Vallee, France

13:30-15:00 CONFERENCE I HALL

AT-4: Combustion generated aerosols, spark ablation, and electrostatic properties

Chairs: **Einar Kruis** (GERMANY), **Tobias Pfeiffer** (NETHERLANDS)

13:30-13:45 **AT-4-01 |** Biomass burning emissions and influence of combustion variables in the cone-calorimeter
VILHELM MALMBORG[1], Ioannis Sadiktsis[1], Dan Madsen[2], Patrick van Hees[2], Andrew Grieshop[3], Joakim Pagels[1] | [1]Ergonomics and Aerosol Technology, LTH, Lund University, Sweden; [2]Fire Safety Engineering, LTH, Lund University, Sweden; [3]Dept. of Civil, Construction and Environmental Engineering, North Carolina State University, Raleigh, USA

13:45-14:00 **AT-4-02 |** Primary and secondary emissions of pellets and logwood residential heating appliances: emissions factors, secondary aerosol formation potential and chemical characterization
CELINE DEGRENDELE[1,2], Serge Collet[3], Abd El Rahman El Mais[3], Nicolas Karoski[3], Adrien Dermigny[3], Mehdi Dionigi[3], Ahmed Abida[3], Vincent Fuvel[3], Yannick Dupuis[3], Christophe Richet[3], Rachel Gemayel[3], Jinane Farah[1], Grazia Maria Lanzafame[1], Brice Temime-Roussel[1], Barbara D'Anna[1], Henri Wortham[1], Alexandre Albinet[3] | [1]LCE, Aix-Marseille University, France; [2]RECETOX, Masaryk University, Brno, Czech Republic; [3]INERIS, Verneuil en Halatte, France

14:00-14:15 **AT-4-03 |** Generation and size characterization of aerosolized nanoplastics
PETER WLASITS, Andrea Stoellner, Gregor Lattner, Klara Maggauer, Paul Winkler | University of Vienna, Austria

14:15-14:30 **AT-4-04 |** Simulation of Nanoparticle Formation from Precursor Laden Droplets via Dual Population Balance Monte-Carlo Method (DPBMC)
IVAN SKENDEROVIC[1], Einar Kruis[1,2] | [1]University of Duisburg-Essen, Germany; [2]Center for Nanointegration Duisburg-Essen (CENIDE), Germany

14:30-14:45 **AT-4-05 |** Experimental study of a compact electrostatically enhanced condensation module by plastic waste pyrolysis
ANDREI BOLOGA, Hans-Joachim Gehrmann, Klaus Woletz, Dieter Stapf | Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany

14:45-15:00 **AT-4-06 |** Strong Increase of Spark Ablation Nanoparticle Production Efficiency and limits of the Llewellyn Jones Model
CHARIS LOIZIDIS[1], Anne Maisser[1], Spyros Bezantakos[1], Andreas Schmidt-Ott[1,2], George Biskos[1,3] | [1]The Cyprus Institute, Climate and Atmosphere Research Centre, Nicosia, Cyprus; [2]TU-Delft, Faculty of Applied Sciences, Delft, Netherlands; [3]TU-Delft, Faculty of Civil Engineering and Geosciences, Delft, Netherlands

BACKUP TALK **AT-P2-011 |** Particle formation by electrospraying in the absence of droplet Coulombic instabilities
DEEPAK PARAJULI[1], Joan Rosell-Llompart[1,2] | [1]Universitat Rovira i Virgili, Tarragona, Spain; [2]Catalan Institution for Research and Advanced Studies - ICREA, Barcelona, Spain

15:00-15:30

Coffee Break

15:30-17:00 TRIANTI HALL

ATAS-12: Spatio-temporal variability of aerosol optical properties

Chairs: **Rob Modini** (SWITZERLAND), **Patrick Sheridan** (USA)

15:30-15:45 **ATAS-12-01 |** Climatology and trends of aerosol optical properties in south-eastern Mediterranean derived from AERONET, MERRA-2, MODIS/Terra and surface measurements
NIKOS KALIVITIS[1], Marios Chatziparaschos[1,2], Nikolaos Gialesakis[1], Giorgos Kouvarakis[1], Nikolaos Mihalopoulos[1,3], Maria Kanakidou[1,2,4] | [1]ECPL, Department of Chemistry, University of Crete, Heraklion, Greece; [2]C-STACC, ICE-HT, Foundation of Research and Technology - Hellas, Patras, Greece; [3]IERSD, National Observatory of Athens, Greece; [4]LAMOS, Institute of Environmental Physics, Excellence Chair University of Bremen, Germany

15:45-16:00 **ATAS-12-02 |** Implications of Changing Background Southeastern U.S. Air Quality on Aerosol Hygroscopicity-10 Years of Aerosol Scattering Hygroscopic Enhancement and Optical Properties from the NOAA FAN Site at Appalachian State University
JAMES SHERMAN | Appalachian State University, Boone, USA

16:00-16:15 **ATAS-12-03 |** Temporal variability of equivalent black carbon in an arid environment
ERSIN TUTSAK[1], Mohamed Kotb Mahfouz[1], Imran Shahid[1], Mustafa Kocak[2] | [1]Qatar University, Doha, Qatar; [2]Middle East Technical University, Mersin, Turkey

16:15-16:30 **ATAS-12-04 |** Mapping Black Carbon and aerosol absorption in a major European city

GIORGIO VERATTI[1], Iasonas Stavroulas[2], Alessandro Bigi[1], Georgios Grivas[2], Panayiotis Kalkavouras[2], Despina Paraskevopoulou[2], Eleni Liakakou[2], Aikaterini Bougiatioti[2], Orestis Speyer[2], Charalampos Chatzidiakos[2], Grazia Ghermandi[1], Evangelos Gerasopoulos[2], Nikos Mihalopoulos[2] | [1]University of Modena and Reggio Emilia, Italy; [2]National Observatory of Athens, Greece

16:30-16:45 **ATAS-12-05 |** Background levels of black carbon over remote marine locations

KIRSTEN FOSSUM[1], Jurgita Ovadnevaite[1], Dantong Liu[2], Michael Flynn[3], Colin O'Dowd[1], Darius Ceburnis[1] | [1]Ryan Institute's Centre for Climate & Air Pollution Studies (C-CAPS), National University of Ireland Galway, Ireland; [2]Department of Atmospheric Sciences, School of Earth Sciences, Zhejiang University, China; [3]Centre for Atmospheric Sciences, School of Earth and Environmental Sciences, University of Manchester, United Kingdom

16:45-17:00 **ATAS-12-06 |** Vertically resolved aerosol variability in the Amazonian boundary layer under clean wet season conditions

MARCO AURELIO FRANCO[1], Bruna Holanda[2], Fernando G. Morais[1], Bruno B. Meller[1], Rafael Valiati[1], Janaína P. Nascimento[1], Meinrat O. Andreae[2], Samara Carbone[3], Micael A. Cecchini[4], Leslie Kremper[2], Luiz Augusto Machado[1,2], Milena Ponczek[1], Luciana V. Rizzo[5], Ulrich Pöschl[2], Christopher Pöhlker[2], Paulo Artaxo[1] | [1]Institute of Physics, University of Sao Paolo, Brazil; [2]Multiphase Chemistry Department, Max Planck Institute for Chemistry, Mainz, Germany; [3]NOAA Global Systems Laboratory, Boulder, USA; [4]Federal University of Uberlândia, Brazil; [5]Department of Atmospheric Science, Colorado State University, Fort Collins, USA; [6]Department of Environmental Sciences, Federal University of Sao Paolo, Diadema, Brazil

BACKUP TALK

ATAS-P5-056 | Highlights of tropospheric aerosol transport from a coastal to a high-altitude station based on in situ and remote sensing measurements during the CALISHTO-HELMOS Campaign

ALEXANDROS PAPAYANNIS[1,4], Christina Anna Papanikolaou[1], Dimitra Anagnou[1], Romanos Foskinis[1,3], Athanasia Moutafidou[2], Andreas Aktypis[2], Konstantinos Eleftheriadis[3], Athanasios Nenes[4,2], Maria Gini[3], Ghislain Motos[4], Prodromos Fetfatzis[3], Marilena Gidarakou[1], Konstantinos Granakis[3], Olga Zografou[3], Christina Spitieri[3], Evangelia Diapouli[3], Mika Komppula[5], Ville Vakkari[5], Alexis Berne[6], Franziska Vogel[7], Ottmar Moehler[7], Panagiotis Kokkalis[8], Maria Mylonaki[1], Ourania Soupiona[1], Stavros Solomos[9], Thierry Podvin[10], Philippe Goloub[10], Christos Kaltsonoudis[2], Spyros Pandis[2] | [1]National Technical University of Athens-LRSU, Greece; [2]Center for Studies of Air Quality and Climate Change, ICES, FORTH, Patras, Greece; [3]Environmental Radioactivity Laboratory, Institute of Nuclear & Radiological Sciences & Technology, Energy and Safety, NCSR "Demokritos", Athens, Greece; [4]LAPI, École Polytechnique Fédérale de Lausanne, Switzerland; [5]Finnish Meteorological Institute, Kuopio, Finland; [6]ERL-LTE, École Polytechnique Fédérale de Lausanne, Switzerland; [7]Karlsrhuhe Institute of Technology, Institute of Meteorology and Climate Research, Germany; [8]Physics Department, Kuwait University, Safat, Kuwait; [9]Research Centre for Atmospheric Physics and Climatology, Academy of Athens, Greece; [10]Laboratoire d'Optique Atmosphérique, University of Lille, CNRS, UMR8518, France

DAY 2 06.09.2022

15:30-17:00 MULTIPURPOSE HALL

AMT-4: Measurement techniques for ambient air

Chairs: **Paolo Laj** (FRANCE), **James Sherman** (USA)

15:30-16:00 **AMT-4-KT | KEYNOTE TALK:** ACTRIS-shaping the future of atmospheric research

PAOLO LAJ | Institute of Environmental Geosciences (IGE), University Grenoble Alpes, France

16:00-16:15 **AMT-4-01 |** Laboratory and field evaluation of particle number sensors designed for periodic technical inspection of passenger cars

ANASTASIOS MELAS, Tommaso Selleri, Ricardo Suarez-Bertoa, Barouch Giechaskiel | European Commission, Joint Research Centre, ISPRA, Italy

16:15-16:30 **AMT-4-02 |** City air remote emission sensing: Experimental study on point sampling of particulates
MARKUS KNOLL[1], Åsa Hallquist[2], Naomi Farren[3], David Carslaw[3], Alexander Bergmann[1], Åke Sjödin[2] | [1]Institute of Electrical Measurement and Sensor Systems, Graz University of Technology, Austria; [2]IVL Swedish Environmental Research Institute, Goteborg, Sweden; [3]Wolfson Atmospheric Chemistry Laboratories, University of York, United Kingdom

16:30-16:45 **AMT-4-03 |** Development and Evaluation of Low-Cost Handheld Sunphotometers Capable of Validating Satellite Aerosol Products Over Mountainous U.S. and African Terrain
JAMES SHERMAN, Ian Krintz, Gizaw Mengistu, Samuel Lebengwa | Appalachian State University, Boone, USA

16:45-17:00 **AMT-4-04 |** Closure in the total particle number concentration from Scanning Mobility Particle Sizer and Condensation Particle Counter in parallel ambient measurements
SEBASTIAN H. SCHMITT[1], Andrea J. Tiwari[2], Ahmed Jaffer[2], Jacob H. Scheckman[2], Thomas Krinke[1], Oliver F. Bischof[1], Torsten Tritscher[1] | [1]TSI GmbH, Aachen, Germany; [2]TSI Incorporated, Shoreview, USA

BACKUP TALK **AMT-P1-019 |** Evidence of Biases in Beta Gauge Measurements due to Chemical Composition of Particulate Matter
KRITIKA SHUKLA[1,2], Shankar Gopala Aggarwal[1,2] | [1]Gas Metrology, Environmental Sciences and Biomedical Metrology Division, CSIR-National Physical Laboratory, Delhi, India; [2]Academy of Scientific and Innovative Research (AcSIR), Ghaziabad, India

15:30-17:00 MC3 HALL

ATAS-13: Chemical characterization and modelling of carbonaceous aerosols

Chairs: **Jesse Kroll** (USA), **Niall O'Sullivan** (IRELAND)

15:30-15:45 **ATAS-13-01 |** Simulating Intermediate Volatility Compounds (IVOCs) in Chemical Transport Models: A lumped species approach
STELLA EFTYCHIA MANAVI[1,2], Spyros Pandis[1,2] | [1]Department of Chemical Engineering, University of Patras, Greece; [2]Institute of Chemical Engineering Sciences, Foundation for Research and Technology-Hellas, Patras, Greece

15:45-16:00 **ATAS-13-02 |** Interactive formation and growth of secondary aerosol particles in the marine and boreal forest environment - Does marine precursors initiate continental new particle formation?
ROBIN WOLLESEN DE JONGE, Pontus Roldin | Lund University, Sweden

16:00-16:15 **ATAS-13-03 |** Contributions of condensable particulate matter to atmospheric organic aerosols and fine particulate matter (PM2.5) in China
Mengying Li[1], SHAOCAI YU[1], Xue Chen[1], Zhen Li[1], Yibo Zhang[1], Zhe Song[1], Weiping Liu[1], Pengfei Li[2] | [1]College of Environment and Resource Sciences, Zhejiang University, Hangzhou, China; [2]College of Science and Technology, Hebei Agricultural University, Baoding, China

16:15-16:30 **ATAS-13-04 |** The number of phases in internal organic aerosol mixtures is driven by difference in oxygen-to-carbon ratio of components
FABIAN MAHRT[1,2], Long Peng[2], Annesha Devi[2], Yuanzhou Huang[2], Yi Ming Qin[3], Paul E. Ohno[3], Scot T. Martin[3], Markus Ammann[1], Allan K. Bertram[2] | [1]Paul Scherrer Institute, Villigen, Switzerland; [2]University of British Columbia, Vancouver, Canada; [3]Harvard University, Cambridge, USA

16:30-16:45 **ATAS-13-05 |** Investigation into the Aerosol Phase Chemistry of 4-Methylcatechol and Guaiacol

NIALL O'SULLIVAN[1], Julien Kammer[1,2], John Wenger[1] | [1]School of Chemistry and Environmental Research Institute, University College Cork, Ireland; [2]Aix Marseille University, CNRS, LCE, France

16:45-17:00 **ATAS-13-06 |** Oxidative evolution of particles and gases from wildfire smoke

JESSE KROLL[1], Kevin J. Nihill[1], Christopher Lim[1,3], Matthew Coggon[2], Abigail Koss[1,2,4], Bin Yuan[2], Jordan Krechmer[5], Kanako Sekimoto[6], Jose Jimenez[7], Joost de Gouw[7], Christopher Cappa[8], Carsten Warneke[2], Colette Heald[1] | [1]Dept. of Civil and Environmental Engineering, MIT, Cambridge, USA; [2]NOAA Earth Systems Research Laboratory Chemical Sciences Division, Boulder, USA; [3]South Coast Air Quality Management District, Diamond Bar, USA; [4]Tofwerk AG, Boulder, USA; [5]Center for Aerosol and Cloud Chemistry, Aerodyne Research, Inc., Billerica, USA; [6]uate School of Nanobioscience, Yokohama City University, Japan; [7]Dept. of Chemistry, University of Colorado - Boulder, USA; [8]Dept. of Civil and Environmental Engineering, UC-Davis, USA

BACKUP TALK

ATAS-P2-067 | Near molecular analysis of organic aerosol emissions from biomass, waste, and cow dung burning

JUN ZHANG[1], Kun Li[1], Tiantian Wang[1], Mihnea Surdu[1], Deepika Bhattu[2], Tianqu Cui[1], Lu Qi[1], Houssni Lamkaddam[1], Dongyu Wang[1], Imad El Haddad[1], Jay Slowik[1], David Bell[1], Prof. Andre Prevot[1] | [1]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, Switzerland; [2]Department of Civil and Infrastructure Engineering, Indian Institute of Technology, Jodhpur, India

15:30-17:00 **MC2 HALL**

BAP-4: Modelling aerosol processes II

Chairs: **Thomas Gelain** (FRANCE), **Knut Deppert** (SWEDEN)

15:30-15:45 **BAP-4-01 |** A Novel Quadrature-Based Moment-Method for Modelling Aerosol Growth and Aggregation. Univariate and Bivariate cases

VASILIKI TSIKOURKITOUDI[1], Panagiotis N. Gavriliadis[2], Georgios Lolas[3,4,5], Themis Matsoukas[6] | [1]Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet, Stockholm, Sweden; [2]Department of Naval Architecture and Marine Engineering, National Technical University of Athens, Greece; [3]3rd Department of Internal Medicine, National and Kapodistrian University of Athens, Athens School of Medicine, Greece; [4]SAMRC Precision Oncology Research Unit (PORU), Pan African Cancer Research Institute (PACRI), University of Pretoria, Hatfield, South Africa; [5]InCELLiA P.C., Athens, Greece; [6]Department of Chemical Engineering, Pennsylvania State University, USA

15:45-16:00 **BAP-4-02 |** Glass transition temperatures of atmospherically relevant organic compounds from molecular dynamics

PANAGIOTA SIACHOULI[1,2], Katerina S. Karadima[1,2], Vlasis G. Mavratzas[1,2,3], Spyros N. Pandis[1,2] | [1]Department of Chemical Engineering, University of Patras, Greece; [2]Institute of Chemical Engineering Sciences (ICE–HT/FORTH),Patras, Greece; [3]Department of Mechanical and Process Engineering, ETH Zurich, Switzerland,

16:00-16:15 **BAP-4-03 |** Modelling and simulation of the deposition and re-entrainment of volumetrically resolved particles on a singular cylindrical fibre using an Immersed Boundary Method

KAMIL BRASCHKE, Uwe Janoske | Universität Wuppertal, Germany

16:15-16:30 **BAP-4-04 |** Non-Equilibrium Thermodynamics of a Coagulating Aerosol: Relating the Self-Preserving Size Distribution to Entropy

ADAM BOIES, Xiaoyu Qiu | University of Cambridge, United Kingdom

16:30-16:45 **BAP-4-05 |** Fate and temperature history of nanosized iron oxide aerosol in iron-doped flames
Matthieu Raphael Lalanne[1], Patrick Wollny[2], Monika Nanjaiah[2], Jan Menser[2], Christof Schulz[2], Sergey Cheskis[3], Irenaeus Wlokas[2], IGOR RAHINOV[1] | [1]The Open University of Israel, Raanana, Israel; [2]University of Duisburg-Essen, Germany; [3]Tel Aviv University, Israel

16:45-17:00 **BAP-4-06 |** Conservative Finite Volume Approach to Solving the Population Balance Equation involving Aggregation, Breakage and Growth
DANIEL O'SULLIVAN, Stelios Rigopoulos | Department of Mechanical Engineering, Imperial College London, United Kingdom

BACKUP TALK **BAP-P3-016 |** A Step-wise Hydration Model of Organics and Electrolytes
ANTHONY WEXLER | UC Davis, USA

15:30-17:00 CONFERENCE I HALL

AT-5: Nanoparticle surface modification, deposition and thin film formation

Chairs: **Nishchay Angel Isaac** (GERMANY), **Jan Marijnissen** (NETHERLANDS)

15:30-15:45 **AT-5-01 |** Air quality monitoring with flame-aerosol deposited gas sensor devices
ANDREAS GUNTNER, J. van den Broek, I.C. Weber, S.E. Pratsinis | ETH Zurich, Switzerland

15:45-16:00 **AT-5-02 |** One-step aerosol fabrication of highly stable and uniform surface-enhanced Raman scattering surfaces
HAIPENG LI, Padryk Merkl, Jens Sommertune, Thomas Thersleff, Georgios Sotiriou | Karolinska Institutet, Solna, Sweden

16:00-16:15 **AT-5-03 |** Design and Production of Thin Films by Electrospraying for Li-ion Batteries
SUSAN KARUGA[1], Michael J. Gatari[2], Erik Kelder[2], Jan Marijnissen[1] | [1]University of Nairobi, Kenya; [2]Delft University of Technology, Delft, Netherlands

16:15-16:30 **AT-5-04 |** Enhancement of Carbon Nanoparticles film deposition in flames by electric field effects
ARIANNA PARISI[1], Gianluigi De Falco[1], Mariano Sirignano[1], Patrizia Minutolo[2], Mario Commodo[2], Claudia Carotenuto[3], Francesco Di Natale[1] | [1]Dipartimento di Ingegneria Chimica, dei Materiali e della Produzione Industriale, Università degli Studi di Napoli Federico II, Naples, Italy; [2]Istituto di Scienze e Tecnologie per l'Energia e la Mobilità Sostenibili, STEMS-CNR, Naples, Italy; [3]Dipartimento di Ingegneria, Università della Campania "L. Vanvitelli", Aversa (CE), Italy

16:30-16:45 **AT-5-05 |** Development of a nanostructured material printer
TOBIAS PFEIFFER, Coosje Pothoven, Max Koole, Katharina Weber, Tomas Storck, Tobias Coppejans, Joerie Gennisse, Pauline Roels | VSParticle B.V., Delft, Netherlands

16:45-17:00 **AT-5-06 |** Fabricating Three-Dimensional Ammonia Gas Sensors using Gas Phase Electrodeposition for Air Quality Monitoring
NISHCHAY ANGEL ISAAC, Leslie Schlag, Johannes Reiprich, Pedro Henrique de Oliveira Moreira, Alper Kaan Soydan, Joerg Pezoldt, Heiko O. Jacobs | TU Ilmenau, Germany

BACKUP TALK **AT-eP1-007 |** One-step gas-phase fabrication of visible-light-activated TiO2 nanoparticulate thin films
Manabu Shimada[1], Dianping Jiang[1], K. Kusdianto[2], Masaru Kubo[1], MEDITHA HUDANDINI[1] | [1]Hiroshima University, Japan; [2]Institut Teknologi Sepuluh Nopember, Surabaya, Indonesia

17:00-19:00 **POSTER AREAS 1-2-3**

Poster Session 2

(see pages 111-135)

19:00-20:00 **MC3.4 HALL**

Elsevier Editorial Board Meeting

19:00-21:00 **MC3 HALL**

Young Investigators Network (YIN) Event

08:00-17:00 **FOYER ENTRANCE NEW BUILDING**

Registration

08:45-10:00 **TRIANTI HALL**

Plenary Talk 3: The Fluid Dynamics of Disease Transmission
Chairs: **Yannis Drossinos** (ITALY), **Jonathan Reid** (UNITED KINGDOM)
Speaker: **Lydia Bourouiba |** Massachusetts Institute of Technology, USA

10:00-10:30 **TRIANTI HALL**

Awards Ceremony 2
International Aerosol Fellow Award (IARA) & Schmauss Award (GAeF)
Panel: **Christof Asbach** (GERMANY), **Pratim Biswas** (USA), **Stephen E. Schwartz** (USA), **Birgit Wehner** (GERMANY)

10:30-11:00

Coffee Break

11:00-12:30 **TRIANTI**

ATAS-14: Source apportionment of carbonaceous aerosol
Chairs: **Aikaterini Bougiatioti** (GREECE), **Ulrike Dusek** (NETHERLANDS)

11:00-11:15 **ATAS-14-01 |** Detailed study of dicarboxylic acids and related compounds in PM1 aerosol at a rural background site in Central Europe: Identification of seasonal tracers and formation mechanisms
PETR VODICKA[1,2], Kimitaka Kawamura[2], Dhananjay Kumar Deshmukh[2], Petra Pokorná[1], Jaroslav Schwarz[1], Vladimír Ždímal[1] | [1]Institute of Chemical Process Fundamentals of the Czech Academy of Sciences, Prague, Czech Republic; [2]Chubu Institute for Advanced Studies, Chubu University, Kasugai, Japan

11:15-11:30 **ATAS-14-02 |** Source apportionment of Black carbon (BC) particles in urban background in European cities in the frame of the RI-URBANS project
MARJAN SAVADKOOHI, Andres Alastuey, Marco Pandolfi, Xavier Querol | Institute of Environmental Assessment and Water Research, IDAEA-CSIC, Barcelona, Spain

11:30-11:45 **ATAS-14-03 |** Sources and atmospheric processing of polycyclic aromatic hydrocarbons in background air – A single-particle study in northern Europe
RALF ZIMMERMANN[1,2], Johannes Passig[1,2], Julian Schade[2], Robert Irsig[3], Thomas Kröger-Badge[2], Hendryk Czech[1,2], Henrik Fallgren[4], Jana Moldanova[4], Martin Sklorz[1], Thorsten Streibel[1,2], |
[1]Helmholtz Centre Munich, Germany; [2]University of Rostock, Germany; [3]Photonion GmbH, Schwerin, Germany; [4]IVL Swedish Environmental Research Institute, Gothenburg, Sweden

11:45-12:00 **ATAS-14-04 |** High-time-resolution carbonaceous aerosols fingerprint using an advanced total carbon–black carbon (TC-BC(λ)) method in Greater Paris, France
MATIC IVANCIC[1], Asta Gregorič[1,2], Gašper Lavrič[1], Bálint Alföldy[1], Irena Ježek[1], Jean-Eudes Petit[3], Nicolas Bonnaire[3], Leila Simon[3], Olivier Favez[4], Martin Rigler[1] | [1]Aerosol d.o.o., Ljubljana, Slovenia| [2]Centre for Atmospheric Research, University of Nova Gorica, Slovenia; [3]Laboratoire des Sciences du Climat et de l'Environnement, CEA/Orme des Merisiers, France; [4]INERIS, Parc Technologique Alata, Verneuil-en-Halatte, France

12:00-12:15 **ATAS-14-05 |** Vertical distribution of carbonaceous aerosols at European rural background site

SALIOU MBENGUE[1], Petr Vodička[2], Kateřina Komínková[1], Jaroslav Schwarz[2], Naděžda Zíková[2], Roman Prokeš[1,3], Kajal Julaha[2,4], Jakub Ondracek[2], Ivan Holoubek[1,3], Vladimir Zdimal[2] | [1]Global Change Research Institute, Czech Academy of Sciences, Brno, Czech Republic; [2]Institute of Chemical Process Fundamentals CAS, Prague, Czech Republic; [3]RECETOX, Faculty of Science, Masaryk University, Brno, Czech Republic; [4]Department of Atmospheric Physics, Faculty of Mathematics and Physics, Charles University, Prague, Czech Republic

12:15-12:30 **ATAS-14-06 |** Summertime (2020) Source Apportionment of Organic Aerosols in relation with their gaseous precursors, Volatile Organic Compounds, in the Paris region, France

LEÏLA SIMON[1,2], Olivier Favez[1], Jean Eudes Petit[2], François Truong[2], Caroline Marchand[1], Francesco Canonaco[3], André Prévôt[4], Valérie Gros[2] | [1]Institut National de l'Environnement Industriel et des Risques (INERIS), Verneuil-en-Halatte, France; [2]Laboratoire des Sciences du Climat et de l'Environnement (LSCE), Gif-sur-Yvette, France; [3]Datalystica Ldt., Villigen, Switzerland; [4]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute (PSI), Villigen, Switzerland

BACKUP TALK **ATAS-P2-073 |** Advanced receptor modelling to retrieve additional information about primary vs. secondary organic aerosol apportionment

ROBERTA VECCHI[1], Alice C Forello[2], Vera Bernardoni[1], Sara Valentini[1], Federica Crova[1], Giulia Calzola[2], Franco Lucarelli[2], Silvia Nava[2], Ettore Petralia[3], Maurizio Gualtieri[3] | [1]University of Milan and INFN-Milan, Italy; [2]University of Florence and INFN-Florence, Italy; [3]ENEA–SSPT–MET–Atmospheric Pollution Laboratory (INAT), Bologna, Italy

11:00-12:30 **MULTIPURPOSE HALL**

AMT-5: Comparison of different measurement techniques

Chairs: **Alfred Wiedensohler** (GERMANY), **Ralf Zimmermann** (GERMANY)

11:00-11:15 **AMT-5-01 |** Intercomparison of holographic imaging and single-particle forward light scattering measurements at liquid clouds microphysical investigations

PETRI TIITTA[1], Ari Leskinen[1,2], Ville Kaikkonen[3], Eero Molkoselkä[4], Anssi Mäkynen[3,4], Jorma Joutsensaari[2], Silvia Calderón[1], Sami Romakkaniemi[1], Mika Komppula[1] | [1]Finnish Meteorological Institute, Kuopio, Finland; [2]Department of Applied Physics, University of Eastern Finland, Kuopio, Finland; [3]Unit of Measurement Technology, University of Oulu, Finland; [4]Optoelectronics and Measurement Techniques unit, University of Oulu, Finland

11:15-11:30 **AMT-5-02 |** Intercomparison of Secondary Organic Aerosol Composition Measurements from Multiple Mass Spectrometers

ERIK HELSTROM[1], Abigail Koss[1], Jordan Krechmer[2], Manjula Canagaratna[2], Alex Zaytsev[3], Frank Keutsch[3], Jesse Kroll[1] | [1]Massachusetts Institute of Technology, Cambridge, USA; [2]Aerodyne Research Inc., Billerica, USA; [3]Harvard University, Cambridge, USA

11:30-11:45 **AMT-5-03 |** Influence of Black Carbon particles' chemical and physical properties to results obtained with different BC instruments and sensors

NIINA KUITTINEN, Hilkka Timonen, Minna Aurela, Anssi Järvinen, Teemu Lepistö, Milla Friman, Päivi Aakko-Saksa, Laura Salo, Aku Helin, Luis Barreira, Kimmo Teinilä, Julien Caubel, Troy Cados, Aki Virkkula, Antti Hyvärinen, Karri Saarnio, Eija Asmi, Sanna Saarikoski, Topi Rönkkö | Tampere University, Finland

11:45-12:00 **AMT-5-04 |** Comparison of positive and negative electrospray ionization ultrahigh-resolution mass spectrometry for the investigation of aerosol extracts

ERIC SCHNEIDER[1,2], Hendryk Czech[1], Christopher P. Rüger[1,2], Olga B. Popovicheva[3], Ralf Zimmermann[1,2] | [1]Department of Analytical and Technical Chemistry, University Rostock, Germany; [2]Department Life, Light and Matter, University Rostock, Germany; [3]Skobeltsyn Institute of Nuclear Physics, Lomonosov Moscow State University, Moscow, Russia

12:00-12:15 **AMT-5-05 |** Rolling vs. Seasonal PMF: Multi-site and synthetic dataset comparisons

MARTA VIA[1,2], Gang Chen[3], Francesco Canonaco[3,4], Kaspar Daellenbach[3], Benjamin Chazeau[5,6], Hasna Chebaicheb[7,8], Jianhui Jiang[9], Hannes Keernik[10,11], Chunsui Lin[12], Nicolas Marchand[5], Cristina-Antonia Marin[13,14], Colin O'Dowd[12], Jurgita Ovadnevaite[12], Jean-Eudes Petit[15], Michael Pikridas[16], Véronique Riffault[7], Jean Sciare[16], Jay Gates Slowik[3], Leïla Simon[8,15], Jeni Vasilescu[13], Yunjiang Zhang[8,15], Olivier Favez[8], André S. H. Prévôt[3], Andrés Alastuey[1], María Cruz Minguillón[1] | [1]IDAEA-CSIC, Barcelona, Spain; [2]Department of Applied Physics, University of Barcelona, Spain; [3]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, Switzerland; [4]Datalystica Ltd., Park innovAARE, Villigen, Switzerland; [5]Aix Marseille Univ., CNRS, LCE, France; [6]AtmoSud, Regional Network for Air Quality Monitoring of Provence-Alpes-Côte-d'Azur, Marseille, France; [7]IMT Nord Europe, Institut Mines-Télécom, Univ. Lille, Centre for Energy and Environment, France; [8]Institut National de l'Environnement Industriel et des Risques, Parc Technologique ALATA, Verneuil-en-Halatte, France; [9]Shanghai Key Lab for Urban Ecological Processes and Eco-Restoration, School of Ecological and Environmental Sciences, East China Normal University, Shanghai, China; [10]Air Quality and Climate Department, Estonian Environmental Research Centre, Tallinn, Estonia; [11]Department of Software Science, Tallinn University of Technology, Estonia; [12]School of Physics and Centre for Climate and Air Pollution Studies, Ryan Institute, National University of Ireland Galway, Ireland; [13]National Institute of Research and Development for Optoelectronics INOE2000, Magurele, Romania; [14]Department of Physics, Politehnica University of Bucharest, Romania; [15]Laboratoire des Sciences du Climat et de l'Environnement, Gif-sur-Yvette, France; [16]Climate and Atmosphere Research Center, The Cyprus Institute, Nicosia, Cyprus

12:15-12:30 **AMT-5-06 |** The performance of HR-ELPI+ using sintered collection plates on different aerosol sources

MARKUS NIKKA, Elmeri Laakkonen, Anssi Arffman, Erkki Lamminen | Dekati Ltd., Kangasala, Finland

BACKUP TALK

AMT-P2-018 | Evaluation of different sensors for diesel exhaust

JONAS SJÖBLOM[1], Tobias Storsjö[2], Peter Molnár[2], Håkan Tinnerberg[2] | [1]Chalmers University of Technology, Gothenburg, Sweden, [2]Gothenburg University, Sweden

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11:00-12:30 MC2 HALL

AH-3: Occupational exposures

Chairs: **Apostolos Salmatonidis** (SPAIN), **Giulia Simonetti** (ITALY)

11:00-11:15 **AH-3-01 |** Metal waste recycling – Emissions and exposures

CHRISTINA ISAXON[1,2], Karin Lovén[3], Marie Beremo[2,4], Erik Ahlberg[4], Maria Messing[2,4], Monica Kåredal[2,3], Maria Hedmer[2,3], Jenny Rissler[1,2,5] | [1]Design Sciences, Lund University, Sweden; [2]NanoLund, Lund University, Sweden; [3]Laboratory Medicine, Lund University, Sweden; [4]Physics, Lund University, Sweden; [5]Bioeconomy and Health, RISE, Lund, Sweden

11:15-11:30 **AH-3-02 |** VAISAL Project: Environmental and health impact of WEEE recycling processes

GIULIA SIMONETTI[1], Donatella Pomata[2], Patrizia Di Filippo[2], Carmela Riccardi[2], Francesca Buiarelli[1], Franco Lucarelli[3], Giulia Pazzi[3], Roberta Galarini[4], Stefano Lorenzetti[5], Laura Goracci[6] | [1]Department of Chemistry, Sapienza University of Rome, Italy; [2]DIT, INAIL, Rome, Italy; [3]University of Florence, Department of Physics and Astronomy, Italy; [4]Istituto Zooprofilattico Sperimentale dell'Umbria e delle Marche "Togo Rosati", Perugia, Italy; [5]Istituto Superiore di Sanità, Dpt. of Food Safety, Nutrition and Veterinary Public Health, Rome, Italy; [6]University of Perugia, Department of Chemistry, Biology and Biotechnology, Italy

11:30-11:45 **AH-3-03 |** Toxicity and size-resolved chemical composition of particles released from refit operations in shipyards

MARIA LOPEZ OLIVE[1], Ana López-Lilao[2], Fernando Ramos[2], Elisabet Pérez-Albaladejo[1], Cinta Porte[1], Eliseo Monfort[2], Mar Viana[1] | [1]IDAEA-CSIC, Barcelona, Spain; [2]ITC, Castellón de la Plana, Spain

11:45-12:00 **AH-3-04 |** Carbon Nanotube(CNT)-enhanced concrete: Aerosol properties and implications for occupational exposure during demolition
CAMILLA ABRAHAMSSON[1,4], Jenny Rissler[1,2,4], Maria Hedmer[3,4], Monica Kåredal[3,4], Christina Isaxon[1,4] | [1]Department of Ergonomics and Aerosol Technology, Lund University, Sweden; [2]RISE (Research Institutes of Sweden), Lund, Sweden; [3]Occupational and Environmental Medicine, Lund University, Sweden; [4]NanoLund, Lund University, Sweden

12:00-12:15 **AH-3-05 |** Characterisation and biological responses of inhalable aerosols from carbon fibres
SONJA MÜLHOPT[1], Manuela Hauser[1], Manuela Wexler[1], Jonathan Mahl[1], Werner Baumann[1], Silvia Diabaté[1], Susanne Fritsch-Decker[1], Carsten Weiss[1], Alexandra Friesen[1], Matthias Hufnagel[3], Andrea Hartwig[1], Bastian Gutmann[2], Christoph Schlager[2], Tobias Krebs[2], Ann-Kathrin Goßmann[3], Frederik Weis[3], Dieter Stapf[1] | [1]Karlsruhe Institute of Technology KIT, Eggenstein-Leopolshafen, Germany; [2]Vitrocell Systems GmbH, Waldkirch, Germany; [3]Palas GmbH, Karlsruhe, Germany

12:15-12:30 **AH-3-06 |** Determination of saliva content in aerosols released by dental drilling work
TIM RESE[1], F. Melzow[2], S. Paris[2], U. Kertzscher[1] | [1]Biofluid Mechanics Laboratory, Institute of Computer-assisted Cardiovascular Medicine, Charité - Universitätsmedizin Berlin, Germany; [2]Department of Restorative, Preventive and Pediatric Dentistry, Charité - Universitätsmedizin Berlin, Germany

11:00-12:30 **CONFERENCE I HALL**

AT-6: Aerosol Measurement Techniques, Filtration and Industrial Aerosols

Chairs: **Igor Agranovski** (AUSTRALIA), **Paolo Fortugno** (GERMANY)

11:00-11:15 **AT-6-01 |** Purification of atmospheric aerosols by Australian vegetation used as green barriers
Nathalie Tomson, Ruby Michael, IGOR AGRANOVSKI | Griffith University, Nathan, Australia

11:15-11:30 **AT-6-02 |** Surface Acoustic Wave Aerosol Generator assisted Low-Temperature Plasma Ionization Mass Spectrometry (SAW-LTPI-MS)
MEHRZAD ROUDINI[1], Andreas Kiontke[2], Susan Billig[2], Armaghan Fakhfouri[1], Claudia Birkemeyer[2], Andreas Winkler[1] | [1]Leibniz Institute for Solid State and Materials Research, Dresden, Germany; [2]Institute of Analytical Chemistry, University of Leipzig, Germany

11:30-11:45 **AT-6-03 |** Efficient removal of NOx emission from air via ascorbic acid-based bacterial suspension **|** **AMIN PIRI[1], GiHyeon Yu[1], Milad Massoudifarid[1], Ali Mohammadi Nasrabadi[2], Jiwoo Jung[1], Jungho Hwang[1] |** [1]Yonsei University, Seoul, Korea; [2]IUTA, Duisburg, Germany

11:45-12:00 **AT-6-04 |** Effects of the sampling conditions on the efficiency of aerosol-to-hydrosol electrostatic pin-plate bio sampler
MILAD MASSOUDIFARID, Amin Piri, Jungho Hwang | Yonsei University Mechanical Engineering Department, Seoul, Korea

12:00-12:15 **AT-6-05 |** Aerosol Climatology with AERONET Observations over a Tropical Rural Station
PANUGANTI DEVARA[1], Katta Vijayakumar[2], Shubhansh Tiwari[1], Amrit Kumar[1], David Giles[3], Brent Holben[3] | [1]Amity University Haryana (AUH), Manesar-Gurugram, India; [2]Sri Venkateswara University (SVU), Tirupati, India; [3]Amity University Haryana (AUH), Manesar-Gurugram, India; [4]Amity University Haryana (AUH), Manesar-Gurugram, India; [5]NASA/GSFC, Greenbelt, USA; [6]NASA/GSFC, Greenbelt, USA

12:15-12:30 **AT-6-06 |** Plasma synthesis of few layer graphene: Role of specific oxygen compounds
PAOLO FORTUGNO, Christof Schulz, Hartmut Wiggers | University of Duisburg-Essen, Institute for Combustion and Gas Dynamics - Reactive Fluids, Duisburg, Germany

11:00-12:40 MC3 HALL

SS-2-A: COVID-19, aerosols, and ventilation I

Chairs: **Constantinos Sioutas** (USA), **Luca Stabile** (ITALY)

11:00-11:25 **SS-2-A-KT |** KEYNOTE TALK: A modelling quantification of COVID-19 control strategies
Ioannis Kioutsioukis[1], Nikolaos I. Stilianakis[2,3], YANNIS DROSSINOS[2] | [1]Department of Physics, University of Patras, Greece; [2]European Commission, Joint Research Centre, Ispra (VA), Italy; [3]Department of Biometry and Epidemiology, University of Erlangen-Nuremberg, Germany

11:25-11:40 **SS-2-A-01 |** Exhaled Influenza and SARS-CoV-2 Virus and Transmissibility Assessments in the Ferret Model
JOANNA PULIT-PENALOZA, Jessica Belser, Claudia Pappas, Nicole Brock, Sun Xiangjie, Troy Kieran, Joyce Jones, David Wentworth, Terrence Tumpey, Bin Zhou, Taronna Maines | Centers for Disease Control and Prevention, Atlanta, USA

11:40-11:55 **SS-2-A-02 |** SARS-CoV-2 detection and culture from aerosols in residences of self-isolating individuals
Chang-Yu Wu[1], William Vass[1], John Lednicky[1], Hugh Fan[1], ARANTZAZU EIGUREN FERNANDEZ[2] | [1]University of Florida, Gainesville, USA; [2]Aerosol Dynamics Inc., Berkeley, USA

11:55-12:10 **SS-2-A-03 |** Unwanted indoor air quality effects from using UV-C lamps for disinfection
FRANS GRAEFFE[1], Yishuo Guo[1,2], Yuanyuan Luo[1], Mikael Ehn[1] | [1]University of Helsinki/Institute for Atmospheric and Earth System Research (INAR), Helsinki, Finland; [2]Beijing University of Chemical Technology/Beijing Advanced Innovation Center for Soft Matter Science and Engineering, Beijing, China

12:10-12:25 **SS-2-A-04 |** Acidity in expiratory aerosol controls the infectivity of airborne influenza virus and SARS-CoV-2
LIVIANA KLEIN[1], Beiping Luo[1], Aline Schaub[2], Irina Glas[3], Shannon David[2], Nir Bluvshtein[1], Kalliopi Violaki[4], Ghislain Motos[4], Marie Pohl[3], Walter Hugentobler[4], Athanasios Nenes[4,5], Ulrich K. Krieger[1], Silke Stertz[3], Tamar Kohn[2], Thomas Peter[1] | [1]Institute for Atmospheric and Climate Science, ETH Zurich, Switzerland; [2]Environmental Chemistry Laboratory, School of Architecture, Civil and Environmental Engineering, Swiss Federal Institute of Technology Lausanne, Switzerland; [3]Institute of Medical Virology, University of Zurich, Switzerland; [4]Laboratory of Atmospheric Processes and their Impacts, School of Architecture, Civil and Environmental Engineering, Swiss Federal Institute of Technology Lausanne, Switzerland; [5]Institute of Chemical Engineering Sciences, Foundation for Research and Technology Hellas, Patras, Greece

12:25-12:40 **SS-2-A-05 |** Evolution of SARS-CoV-2 shedding in exhaled breath aerosols
KRISTEN COLEMAN[1], Jianyu Lai[1], S.-H. Sheldon Tai[1], Jennifer German[1], Filbert Hong[1], Barbara Albert[1], Yi Esparza[1], Aditya K. Srikakulapu[1], Maria Schanz[1], Isabel Sierra Maldonado[1], Molly Oertel[1], Naja Fadul[1], T. Louie Gold[1], Stuart Weston[2], Matthew Frieman[2], Kathleen McPhaul[1], Donald Milton[1] | [1]Institute for Applied Environmental Health, University of Maryland School of Public Health, College Park, USA; [2]Department of Microbiology and Immunology, University of Maryland School of Medicine, Baltimore, USA

BACKUP TALK **SS2 P1 030 |** SARS-CoV-2 airborne infection transmission risk in transport microenvironments
LUCA STABILE, Gino Cortellessa, Giorgio Grossi, Fausto Arpino, Michele Bertone, Giorgio Buonanno | University of Cassino and Southern Lazio, Cassino, Italy

12:30-13:30

Lunch Break

12:30-13:30 **MC3.4 HALL**

EAA Board Meeting

13:30-15:00 **TRIANTI HALL**

ATAS-15: Source apportionment at high resolution

Chairs: **Evangelia Diapouli** (GREECE), **Yue Zhang** (USA)

13:30-13:45 **ATAS-15-01 |** Real-time Detection and Chemical Characterization of Fresh and Aged Airborne Microplastic Particles (MPPs)

Sining Niu[1], Sahir Gagan[1], Ruizhe Liu[1], Nicolas Buchenau[2], Jason Surratt[2,3], Xingmao Ma[4], Manjula Canagaratna[5], YUE ZHANG[1] | [1]Department of Atmospheric Sciences, Texas A&M University, College Station, USA; [2]Department of Environmental Sciences and Engineering, University of North Carolina at Chapel Hill, USA; [3]Department of Chemistry, University of North Carolina at Chapel Hill, USA; [4]Department of Civil and Environmental Engineering, Texas A&M University, College Station, USA; [5]Aerodyne Research, Billerica, USA

13:45-14:00 **ATAS-15-02 |** Multi-Wavelength Absorption Analyzer (MWAA) Model for the optical source and component apportionment of atmospheric carbonaceous aerosol in the Po valley (Italy)

Sara Valentini[1], Vera Bernardoni[1], Maurizio Busetto[2], Francesca Costabile[3], Federica Crova[1], Luca Di Liberto[3], Alice Corina Forello[1,4], Fabio Giardi[4,5], Franco Lucarelli[4,5], DARIO MASSABO[6], Marco Paglione[2], Silvia Nava[4,5], Giulia Pazzi[4,5], Paolo Prati[6], Matteo Rinaldi[2], Gianluigi Valli[1], Virginia Vernocchi[6], Roberta Vecchi[1] | [1]Department of Physics, Università degli Studi di Milano and INFN-Milan, Italy; [2]CNR Institute of Atmospheric Sciences and Climate, Bologna, Italy; [3]CNR Institute of Atmospheric Sciences and Climate, Rome, Italy; [4]Department of Physics and Astronomy, Università degli Studi di Firenze, Italy; [5]INFN-Florence, Sesto Fiorentino, Italy; [6]Department of Physics, University of Genoa and INFN-Genoa, Italy

14:00-14:15 **ATAS-15-03 |** Characterization of atmospheric aerosol using merged data from a Scanning Mobility Particle Sizer and a Fine Dust Monitor System

ADAMS KAMARA[1], Roy Harrison[1,2], William Bloss[1] | [1]University of Birmingham, United Kingdom; [2]King Abdulaziz University, Jeddah, Saudi Arabia

14:15-14:30 **ATAS-15-04 |** Source apportionment of high-time resolution PM2.5 including NR-PM2.5 sources, elements and BC using PMF*PMF technique

ASHUTOSH KUMAR SHUKLA[1], Sachchida Nand Tripathi[1], Francesco Canonaco[2], Vipul Lalchandani[1], Ravi Sahu[1], Jay Dave[3], Navaneeth M Thamban[4], Sreenivas Gaddamidi[1], Lokesh Sahu[5], Mayank Kumar[6], Vikram Singh[7], Neeraj Rastogi[3] | [1]IIT Kanpur, India; [2]PSI Switzerland, Villigen, Switzerland; [3]Geosciences Division, PRL Ahmedabad, India; [4]School of Geography, Earth & Environmental Sciences, University of Birmingham, United Kingdom; [5]Space and Atmospheric Sciences Division, PRL Ahmedabad, India; [6]Department of Mechanical Engineering, IIT Delhi, India; [7]Department of Chemical Engineering, IIT Delhi, India

14:30-14:45 **ATAS-15-05 |** Chemical composition, sources and insights on submicron aerosol atmospheric processing during wintertime outstanding smog episodes
IASONAS STAVROULAS[1,2], Maximilien Desservettaz[2], Kalliopi Petrinoli[1], Aikaterini Bougiatioti[1], Eleni Liakakou[1], Konstantinos Koukoulakis[1], Georgios Grivas[1], Dimitrios Kaskaoutis[1], Nikolaos Hatzianastassiou[3], Evangelos Gerasopoulos[1], Efstratios Bourtsoukidis[2], Jean Sciare[2], Nikolaos Mihalopoulos[1,2] | [1]IERSD, National Observatory of Athens, Greece; [2]CARE-C, The Cyprus Institute, Nicosia, Cyprus; [3]Department of Physics, University of Ioannina, Greece

14:45-15:00 **ATAS-15-06 |** Ultrafine particles monitoring and characterization at different urban environments: the nPETS experimental campaigns in Spain
SHARON RIDOLFO[1], Angeliki Karanasiou[1], Xavier Querol[1], Andres Alastuey[1], Barend van Drooge[1], Ulf Olofsson[2], Ellen Bergseth[2], Esther Carbonell[3], Jordi Vila[4], Joaquim Cortes[4], Manuel Pedrero[5], Miriam Madrid[5], Isabel Hernandez[6], Fulvio Amato[1] | [1]Institute of Environmental Assessment and Water Research, IDAEA, Spanish Research Council (CSIC), Barcelona, Spain; [2]KTH Royal Institute of Technology, Machine Design, Stockholm, Sweden; [3]Ferrocarrils de la Generalitat Valenciana (FGV), Valencia, Spain; [4]Port of Barcelona, Spain; [5]AENA SME, S.A. - Josep Tarradellas Barcelona-El Prat Airport, El prat de Llobregat, Spain; [6]Department of Climate Action, Food and Rural Agenda of the Government of Catalonia, Barcelona, Spain

BACKUP TALK **ATAS-eP2-032 |** Spatiotemporal variability of PM sources in Cyprus
ELIE BIMENYIMANA[1], Minas Iakovides[1], Michael Pikridas[1], Konstantina Oikonomou[1], Emily Vassiliadou[2], Chrysanthos Savvides[2], Nikos Mihalopoulos[1], Jean Sciare[1] | [1]Climate and Atmosphere Research Centre (CARE-C), The Cyprus Institute, Nicosia, Cyprus; [2]Department of Labour Inspection, Ministry of Labour, Welfare, and Social Insurance, Nicosia, Cyprus

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13:30-15:00 MC3 HALL

SS-2-B: COVID-19, aerosols, and ventilation II

Chairs: **Bryan Bzdek** (UNITED KINGDOM), **Walter Hugentobler** (SWITZERLAND)

13:30-13:45 **SS-2-B-01 |** Use of Air Cleaners to Control SARS-CoV-2 Aerosols in Homes of COVID-19 Infected Adults: a Real-world Scenario
GEDIMINAS MAINELIS, Nirmala Myers, Robert Laumbach, Kathleen Black, Pamela Ohman-Stickland, Shahnaz Alimohtari, Alicia Legard, Adriana de Resende, Leonardo Calderon, Frederic Lu, Howard Kipen | Rutgers University, New Brunswick, USA

13:45-14:00 **SS-2-B-02 |** The Dynamics of SARS-CoV-2 Infectivity with Changes in Aerosol Microenvironment
ALLEN HADDRELL, Henry Oswin, Mara Otero Fernandez, James Mann, Tristan Cogan, Tom Holditch, Jianhan Tian, Dan Hardy, Darryl Hill, Adam Finn, Andrew Davidson, Jonathan Reid | University of Bristol, United Kingdom

14:00-14:15 **SS-2-B-03 |** Indoor air quality assessments in densely seated classrooms under realistic conditions: a focus on the role of mobile air purifier
Mohammad Aldekheel, Vahid Jalali Farahani, Ramin Tohidi, Abdulmalik Altuwayjiri, CONSTANTINOS SIOUTAS | University of Southern California, Los Angeles, USA

14:15-14:30 **SS-2-B-04 |** Testing of air purifiers with surrogate particles for viruses and exhaled droplets under laboratory and real conditions
STEFAN SCHUMACHER, Anna Caspari, Arantxa Banda Sanchez, Katharina Staack, Christof Asbach | Institute of Energy and Environmental Technology (IUTA), Duisburg, Germany

14:30-14:45 **SS-2-B-05 |** Longitudinal, size-resolved air sampling of SARS-CoV-2 in hospital corridors and relations to the indoor environment
SARA THURESSON[1], Carl-Johan Fraenkel[2,3], Patrik Medstrand[4], Malin Alsved[1], Jakob Löndahl[1] | [1]Division of Ergonomics and Aerosol Technology, Department of Design Sciences, Lund University, Sweden; [2]Department of Infection Control, Region Skåne, Lund, Sweden; [3]Division of Infection Medicine, Department of Clinical Sciences, Lund University, Sweden; [4]Department of Translational Medicine, Lund University, Sweden

14:45-15:00 **SS-2-B-06 |** Measuring efficiency of HVAC Filters, Air Purifiers at COVID-19 size region
PRODROMOS FETFATZIS[1,2], Maria Gini[1], Olga Zografou[1], Panagiotis Karkavitsas[1], Konstantinos Granakis[1], Christina Spitieri[1], Vassiliki Vassilatou[1], Konstantinos Eleftheriadis[1] | [1]ERL, INRaSTES, N.C.S.R. 'Demokritos', Athens, Greece; [2]Industrial Design and Production Engineering, University of West Attica, Athens, Greece

13:30-15:00 CONFERENCE I HALL

AT-7: Synthesis, structuring and applications of functional nanoparticles III

Chairs: **Jose L. Castillo** (SPAIN), **Jyrki Mäkelä** (FINLAND)

13:30-13:45 **AT-7-01 |** Multifunctional nanostructured implant coatings for superior antibacterial properties and osseointegration
FELIX GEISSEL, Georgios Sotiriou | Karolinska Institutet, Stockholm, Sweden

13:45-14:00 **AT-7-02 |** Stability of cone-jet bipolar electrosprays for atomization of liquid suspensions
JOSE L CASTILLO, Santiago Martin, Pedro L Garcia-Ybarra | UNED, Las Rozas (Madrid), Spain

14:00-14:15 **AT-7-03 |** Surface and volume characteristics of multi component nanoparticles ("Hetero aggregates") obtained from spark discharge synthesis in extremely defined carrier gases
Vinzent Olszok, ALEXANDER PLACK, Alfred P. Weber | TU Clausthal, Clausthal-Zellerfeld, Germany

14:15-14:30 **AT-7-04 |** Mineral Carbonation Characteristics of MgO Nanoparticles Synthesized by Different Aerosol Methods
KYUNGIL CHO[1], Yearyeong Kang[2], Sukbyung Chae[3], Yoonkyeong Ha[1], Soodong Lee[1], Jeongbeen Kim[1], Jihye Park[2], Changhyuk Kim[1,2] | [1]School of Civil and Environmental Engineering, Pusan National University, Busan, Korea; [2]School of Chemical-Biomolecular and Environmental Engineering, Pusan National University, Busan, Korea; [3]School of Mechanical Engineering, Korea University of Technology and Education, Cheonan, Korea

14:30-14:45 **AT-7-05 |** Silver-Decorated TiO2 Inverse Opal Structures for Visible Light Photocatalytic Material
JYRKI MÄKELÄ, Miika Sorvali, Filipp Temerov, Jarkko Saarinen | Tampere University, Physics Unit, Finland

14:45-15:00 **AT-7-06 |** The effect of electrode composition on the composition of binary Ag-Au nanoparticles produced by spark ablation
LINNEA JÖNSSON[1], Markus Snellman[1], Axel C Eriksson[2], Monica Kåredal[3], Sara Blomberg[4], Reine Wallenberg[5], Maria E Messing[1] | [1]Solid State Physics & NanoLund, Lund University, Sweden; [2]Ergonomics and Aerosol Technology & NanoLund, Lund University, Sweden; [3]Division of Occupational and Environmental Medicine & NanoLund, Lund University, Sweden; [4]Department of Chemical Engineering & NanoLund, Lund University, Sweden; [5]Center for Analysis and Synthesis & NanoLund, Lund University, Sweden

13:30-15:10 MULTIPURPOSE HALL

AMT-6: Electrical and mechanical sizing techniques

Chairs: **George Biskos** (CYPRUS), **Andreas Schmidt-Ott** (NETHERLANDS)

13:30-13:55 **AMT-6-KT | KEYNOTE TALK:** High resolution particle size determination with sheathed condensation particle counters, and the verification of classical heterogeneous nucleation theory
Michel Attoui[1], Luis J. Perez-Lorenzo[2], Charles A. Brock[3], JUAN FERNANDEZ DE LA MORA[2] | [1]LISA, UMR7583, Université de Paris, Institut Pierre Simon Laplace, Créteil, France; [2]Yale University, Department of Mechanical Engineering and Materials Science, New Haven, CT, USA; [3]NOAA Chemical Sciences Laboratory, Boulder CO, USA

13:55-14:10 **AMT-6-01 |** Spider-MAGIC: A fast, compact mobility spectrometer for dual-polarity size distribution measurements
STAVROS AMANATIDIS[1], Gregory Lewis[1], Steven Spielman[1], Arantza Eiguren-Fernandez[1], Susanne Hering[1], Ryan Ward[2], Yuanlong Huang[2], Benjamin Schultze[2], Richard Flagan[2] | [1]Aerosol Dynamics Inc., Berkeley, USA; [2]California Institute of Technology, Pasadina, USA

14:10-14:25 **AMT-6-02 |** Influence of temperature and humidity on electrical mobility
XUEMENG CHEN[1,2], Viraj Gandhi[2], Heikki Junninen[1], Carlos Larriba-Andaluz[2,3] | [1]University of Tartu, Estonia; [2]IUPUI, Indianapolis, USA; [3]Purdue University, West Lafayette, USA

14:25-14:40 **AMT-6-03 |** Measuring size distributions of atmospheric aerosols using natural air ions
YIRAN LI, Xiaotong Chen, Jingkun Jiang | Tsinghua University, Beijing, China

14:40-14:55 **AMT-6-04 |** Assessment of Scanning Mobility Particle Sizer (SMPS) for online monitoring of delivered dose in an in vitro aerosol exposure system
Sripriya Nannu Shankar[1], Kiran Mital[1], Eric Le[1], Gregory Lewis[2], ARANTZAZU EIGUREN FERNANDEZ[2], Tara Sabo-Attwood[1], Chang-Yu Wu[1] | [1]University of Florida, Gainesville, USA; [2]Aerosol Dynamics Inc., Berkeley, USA

14:55-15:10 **AMT-6-05 |** Application of an Electrical Low Pressure Impactor (ELPI) for Residual Particle Measurement in an Epitaxial Growth Reactor
SEUNGJAE LEE[1], Seungho Keum[2], Hongkang Lim[2], Taesung Kim[1,3] | [1]School of Mechanical Engineering, Sungkyunkwan University, Suwon, Korea; [2]SK Siltron Co. Ltd., Gumi, Korea; [3]SKKU Advanced Institute of Nanotechnology, Sungkyunkwan University, Suwon, Korea

BACKUP TALK **AMT-P2-021 |** Performance and comparison measurements of a new ultrafine particle monitor for ambient air
Katharina Müller, Ann-Kathrin Goßmann, Frederik Weis, Maximilian Weiß, HENRIK HOF | Palas GmbH, Karlsruhe, Germany

13:30-15:10 MC2 HALL

ATAS-16: Long-term trends and long-range transport of aerosols

Chairs: **Nikolaos Evangeliou** (NORWAY), **Elena Gregoris** (ITALY)

13:30-13:55 **ATAS-16-KT | KEYNOTE TALK:** Desert dust and air quality: Is it only mineral dust that matters for health effects?
MARCO PANDOLFI | Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Spanish Research Council (CSIC), Barcelona, Spain

13:55-14:10 **ATAS-16-01 |** Influence of long-range transported aerosol on urban air quality
LAURENT POULAIN, Rasmus Hoffmann, Samira Atabakhsh, Alfred Wiedensohler, Hartmut Herrmann | Leibniz Institute For Tropospheric Research (TROPOS), Leipzig, Germany

14:10-14:25 **ATAS-16-02 |** Long-range aerosol transport influence at ground level
JENI VASILESCU[1], Livio Belegante[1], Razvan Pirloaga[1,2], Victor Nicolae[1,2], Cristina Marin[1], Luminita Marmureanu[1] | [1]National Institute of Research and Development for Optoelectronics, Magurele, Romania; [2]Faculty of Physics University of Bucharest, Magurele, Romania

14:25-14:40 **ATAS-16-03 |** Irish transboundary nitrate pollution episodes
KIRSTEN FOSSUM[1], Chunshui Lin[1,2], Darius Ceburnis[1], Wei Xu[1], Liz Coleman[1], Emmanuel Chevassus[1], Damien Martin[1], Colin O'Dowd[1], Jurgita Ovadnevaite[1] | [1]Ryan Institute Centre for Climate & Air Pollution Studies, National University of Ireland Galway, Ireland; [2]CAS Center for Excellence in Quaternary Science and Global Change & State Key Laboratory of Loess and Quaternary Geology, Key Laboratory of Aerosol Chemistry and Physics, Institute of Earth Environment, Chinese Academy of Sciences, Xi'an, China

14:40-14:55 **ATAS-16-04 |** Aerosol Composition Trends during 2000-2020: In depth insights from model predictions and multiple worldwide observation datasets
ALEXANDRA TSIMPIDI, Susanne Scholz, Alexandros Milousis, Vlassis Karydis, Andreas Wahner, Astrid Kiendler-Scharr | Institute of Energy and Climate Research, IEK-8: Troposphere, Forschungszentrum Jülich, Germany

14:55-15:10 **ATAS-16-05 |** 5-year analysis of submicron aerosol chemical composition and organic aerosol source apportionment at a suburban site in North-Western Europe
HASNA CHEBAICHEB[1,2,3], Joel F. de Brito[1], Olivier Favez[2,3], Caroline Marchand[2,3], Véronique Riffault[1,3] | [1]IMT Nord Europe, Institut Mines-Télécom, Université de Lille, Centre for Energy and Environment, France; [2]Institut National de l'Environnement Industriel et des Risques (INERIS), Verneuil-en-Halatte, France; [3]Laboratoire Central de Surveillance de la Qualité de l'Air (LCSQA), Verneuil-en-Halatte, France

BACKUP TALK **ATAS-P2-072 |** Investigating the global secondary atmospheric pollutants response to emission reductions imposed during the COVID-19 pandemic
APOSTOLOS KOUMPAROS, Vlassis Karydis, Astrid Kiendler-Scharr and Alexandra Tsimpidi | Juelich Forschungszentrum IEK-8, Aachen, Germany

15:00-17:00 **TRIANTI HALL**

ACTRIS Aerosol-in-situ Community meeting

08:00-17:00 **FOYER ENTRANCE NEW BUILDING**

Registration

08:45-10:00 **TRIANTI HALL**

Plenary Talk 4: Health effects of ultrafine particles

Chairs: **Konstantinos Eleftheriadis** (GREECE), **Klea Katsouyanni** (GREECE)
Speaker: **Annette Peters |** Ludwig Maximilians Universität München, Germany

10:00-10:30 **TRIANTI HALL**

Conference information and Logistics

Panel: **Konstantinos Eleftheriadis** (GREECE), **Nikolaos Mihalopoulos** (GREECE)

10:30-11:00

Coffee Break

11:00-12:30 **TRIANTI HALL**

ATAS-17: Source apportionment in different regions I

Chairs: **Daniele Contini** (ITALY), **Ana Kroflič** (SLOVENIA)

11:00-11:15 **ATAS-17-01 |** Source apportionment of PM2.5 in two East-Mediterranean sites

MARC FADEL[1,2], Dominique Courcot[2], Marianne Seigneur[2], Adib Kfoury[4], Konstantina Oikonomou[3], Jean Sciare[3], Frédéric Ledoux[2], Charbel Afif[1,3] | [1]Emissions, Measurements, and Modeling of the Atmosphere (EMMA) Laboratory, CAR, Faculty of Sciences, Saint Joseph University, Beirut, Lebanon; [2]Unité de Chimie Environnementale et Interactions sur le Vivant, UCEIV UR4492, FR CNRS 3417, University of Littoral Côte d'Opale (ULCO), Dunkirk, France; [3]Climate and Atmosphere Research Center, The Cyprus Institute, Nicosia, Cyprus; [4]Department of Environmental Sciences, University of Balamand, Al Kourah, Lebanon

11:15-11:30 **ATAS-17-02 |** Combined organic and inorganic source apportionment on a yearlong ToF-ACSM dataset

OLGA ZOGRAFOU[1], Maria Gini[1], Manousos-Ioannis Manousakas[2], Gang Chen[2], Athina-Cerise Kalogridis[1], Evangelia Diapouli[1], Athina Pappa[3], Konstantinos Eleftheriadis[1] | [1]Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, N.C.S.R. "Demokritos", Athens, Greece; [2]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, PSI , Villigen , Switzerland; [3]Laboratory of Inorganic and Analytical Chemistry, Department of Chemical Engineering, National Technical University of Athens (NTUA), 9 Iroon Politechniou St., Athens, Greece

11:30-11:45 **ATAS-17-03 |** Chemical Profile of PM2.5 in China (urban Beijing and Tuoji island) and Korea (urban Gwangju): A Study from 2018-2020

JASMITA KHADGI[1], Jiho Jang[1], Nohhyeon Kwak[1], Haebum Lee[1], Minhan Park[1], Illhwa Seo[1], Dahye Oh[2], Min-Suk Bae[4], Kyoung-Soon Jang[5], Yujue Wang[3], Min Hu[3], Kihong Park[1] | [1]National Leading Research Laboratory, School of Environmental Science and Engineering, Gwangju Institute of Science and Technology (GIST), Gwangju, Korea, Republic of; [2]PM2.5 Integrated Characterization Center, School of Environmental Science and Engineering, Gwangju Institute of Science and Technology (GIST), , Republic of Korea; [3]State Key Joint Laboratory of Environmental Simulation and Pollution Control, and Beijing Innovation Center for Engineering Sciences and Advanced Technology, College of Environmental Sciences and Engineering, Peking University, Beijing, China; [4]Department of Environmental Engineering, Mokpo National University, Republic of Korea; [5]Biomedical Omics Center, Korea Basic Science Institute, Republic of Korea

11:45-12:00 **ATAS-17-04 |** Chemical characterization of atmospheric particulate matter and source apportionment in an urban-industrial area of the Lisbon Metropolitan Area, Portugal

CARLA A. GAMELAS[1,2], Nuno Canha[1], Ana Vicente[3], Célia Alves[3], Zsofia Kertesz[4], Susana Marta Almeida[1] | [1]Centro de Ciências e Tecnologias Nucleares, Instituto Superior Técnico, Universidade de Lisboa, Estrada Nacional 10, 2695-066 Bobadela, Lisboa, Portugal; [2]ESTSetúbal/IPS and CINEA, IPS Campus, Polytechnic Institute of Setúbal, 2914-508 Setúbal, Setúbal, Portugal; [3]CESAM—Centre for Environmental and Marine Studies, Department of Environment and Planning, University of Aveiro, 3810-193 Aveiro, Aveiro, Portugal; [4]Laboratory for Heritage Science, Institute for Nuclear Research, H-4026 Debrecen, Debrecen, Hungary

12:00-12:15 **ATAS-17-05 |** Source apportionment of PM deposits on stone surfaces

ANA KROFLIČ[1], Monika Ogrizek[1], Asta Gregorič[2,3], Urša Skube[1], Ivana Drventić[1], Marjan Bele[1], Kristijan Vidović[1,4], Martin Rigler[2], Marta Klanjšek Gunde[1], Martin Šala[1], Eva Menart[5] | [1]National Institute of Chemistry, Ljubljana, Slovenia; [2]Aerosol d.o.o., Ljubljana, Slovenia; [3]Center for Atmospheric Research, University of Nova Gorica, Ajdovščina, Slovenia; [4]Ruđer Bošković Institute, Zagreb, Croatia; [5]National Museum of Slovenia, Ljubljana, Slovenia

12:15-12:30 **ATAS-17-06 |** Identification of PM10 sources in a high polluted site in Central Italy through the application of the PMF receptor model to daily and hourly data and the emission inventory

FRANCO LUCARELLI[1], Fabio Giardi[2], Silvia Nava[1], Massimo Chiari[1], Giulia Pazzi[1], Bianca Patrizia Andreini[2], DR E Bini[2], Chiara Collaveri[2], Francesca Calastrini[3,4], C. Busillo[4], Francesca Guarnieri[4], Silvia Becagli[5], Mirko Severi[5], Rita Traversi[5] | [1]Department Of Physics And Astronomy University Of Florence and INFN, Sesto Fiorentino, Italy; [2]ARPAT, Regional Centre for the Protection of Air Quality, Livorno, Italy; [3]CNR-IBE, Sesto Fiorentino, Sesto Fiorentino, Italia; [4]LaMMA Consortium, Sesto Fiorentino, Italia; [5]Department of Chemistry, University of Florence, Sesto Fiorentino, Italia

BACKUP TALK **ATAS-eP1-010 |** Exploring sources, formation, and evolution processes for organic aerosol observed at Chacaltaya Mountain Station (5240 m a.s.l., Bolivia) by combining molecular composition with air mass source regions

CHENG WU[1], Angela Buchholz[2], Diego Aliaga[3], Yvette Gramlich[1], Federico Bianchi[3], Wei Huang[3], Victoria A. Sinclair[3], Marcos Andrade[4], Claudia Mohr[1] | [1]Department of Environmental Science, University of Stockholm, Sweden; [2]Department of Applied Physics, University of Eastern Finland, Finland; [3]Institute for Atmospheric and Earth System Research/Physics, University of Helsinki, Finland; [4]Laboratorio de Fisica de la Atmosfera, Universidad Mayor de San Andrés, Bolivia

11:00-12:30 **MULTIPURPOSE HALL**

AMT-7: Novel Measurement Techniques I

Chairs: **Nadia Shardt** (SWITZERLAND), **Anthony Wexler** (USA)

11:00-11:15 **AMT-7-01 |** An instrument for measuring light absorption by aerosols by using cantilever-enhanced photoacoustic spectroscopy (CEPAS)

AKI VIRKKULA[1], Juho Karhu[2,3], Joel Kuula[1], Hilkka Timonen[1], Markku Vainio[3,4], Tuomas Hieta[5] | [1]Atmospheric Composition Research, Finnish Meteorological Institute, Helsinki, Finland; [2]Metrology Research Institute, Aalto University, Espoo, Finland; [3]Department of Chemistry, University of Helsinki, Helsinki, Finland; [4]Photonics Laboratory, Physics Unit, Tampere University, Tampere, Finland; [5]Gasera Ltd, Turku, Finland

11:15-11:30 **AMT-7-02 |** Metal content in Berlin's outdoor air measured with high temporal resolution using a custom-built cascade impactor and total reflection X-ray fluorescence (TXRF) analysis

CLAUDIO CRAZZOLARA[1,2], Andreas Held[1] | [1]Technische Universität Berlin, Environmental Chemistry and Air Research, Berlin, Germany; [2]Bruker Nano GmbH, Berlin, Germany

11:30-11:45 **AMT-7-03 |** The Microfluidic Ice Nuclei Counter Zurich (MINCZ): A platform for homogeneous and heterogeneous ice nucleation
NADIA SHARDT[1], Florin Isenrich[2], Michael Rösch[1], Stavros Stavrakis[2], Claudia Marcolli[1], Zamin A. Kanji[1], Andrew J. deMello[2], Ulrike Lohmann[1] | [1]Institute for Atmospheric and Climate Science, ETH Zurich, Zürich, Switzerland; [2]Institute for Chemical and Bioengineering, ETH Zurich, Zürich, Switzerland

11:45-12:00 **AMT-7-04 |** A new real-time selective particle spectrometer for submicron fluorescent aerosols
Soleiman Bourrous[1], AMEL KORT[1], Corinne Prevost[1], Francois Gensdarmes[1] | [1]IRSN/PSN-RES/SCA, Gif Sur Yvette, France

12:00-12:15 **AMT-7-05 |** Particle size distribution measurement with the Partector 2
Martin Fierz[1], DOMINIK MEIER[1] | [1]naneos particle solutions, Windisch, Switzerland

12:15-12:30 **AMT-7-06 |** Characterization of ambient metal particles using atomic emission spectroscopy
Hanyang Li[1], Ali Davari[1], Leonardo Mazzei[1], Christopher Wallis[1], ANTHONY WEXLER[1] | [1]University of California, Davis, Air Quality Research Center, Davis, United States of America

BACKUP TALK

AMT-P2-020 | Field Deployments of the mini Aerosol Mass Spectrometer
BENJAMIN WERDEN[1,2], Michael Giordano[7,2], Douglas Goetz[8,2], Robuil Islam[3], Eduard Fortner[1], Philip Croteau[1], Erin Katz[9,2], Douglas Wornsop[1], John Jayne[1], Arnico Panday[5,10], Robert Yokelson[4], Elizabeth Stone[3], Peter DeCarlo[6,2] | [1]Aerodyne Research Inc, Billerica, United States; [2]Drexel University, Philadelphia, United States; [3]University of Iowa, Iowa City, United States; [4]University of Montana, Missoula, United States; [5]International Centre for Integrated Mountain Development, Lalitpur, Nepal; [6]Johns Hopkins University, Baltimore, United States; [7]Africa Qualite de l'air, Paris, France; [8]Laboratory for Atmospheric Space Physics, University of Colorado at Boulder, Boulder, United States; [9]UC Berkeley, Berkeley , United States; [10]Ullens Educational Foundation, Khumaltar, Nepal

11:00-12:30 MC3 HALL

ATAS-18: Atmospheric new particle formation: Field observations and lab studies

Chairs: **Vijay Kanawade** (INDIA), **Veli-Matti Kerminen** (FINLAND)

11:00-11:15 **ATAS-18-01 |** Synergistic HNO3–H2SO4–NH3 upper tropospheric particle formation
MINGYI WANG[1,2], Mao Xiao[3], Barbara Bertozzi[4], Marie Guillaume[5], Birte Rörup[6], Benjamin Schulze[2], Roman Bardakov[7], Xu-Cheng He[6], Jiali Shen[6], Wiebke Scholz[8], Ruby Marten[3], Lubna Dada[3,6], Rima Baalbaki[6], Brandon Lopez[1], Houssni Lamkaddam[3], Hanna E. Manninen[9], Paul M. Winkler[10], Armin Hansel[8], Urs Baltensperger[3], Markku Kulmala[6], Richard C. Flagan[2], Joachim Curtius[5], Ilona Riipinen[11], Hamish Gordon[1], Jos Lelieveld[12,13], Imad El-Haddad[3], Rainer Volkamer[14], Douglas R. Worsnop[15], Theodoros Christoudias[13], Jasper Kirkby[9,5], Ottmar Möhler[4], Neil M. Donahue[1], CLOUD collaboration | [1]Center for Atmospheric Particle Studies, Carnegie Mellon University, Pittsburgh, PA, United States of America; [2]Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA, United States of America; [3]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, CH-5232 Villigen, Switzerland; [4]Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology, Karlsruhe, Germany; [5]Institute for Atmospheric and Environmental Sciences, Goethe University Frankfurt, Frankfurt, Germany; [6]Institute for Atmospheric and Earth System Research (INAR), University of Helsinki, 00014 Helsinki, Finland; [7]Department of Meteorology, Stockholm University, SE-10691 Stockholm, Sweden; [8]Institute for Ion Physics and Applied Physics, University of Innsbruck, 6020 Innsbruck, Austria; [9]CERN, the European Organization for Nuclear Research, CH-1211 Geneve 23, Switzerland; [10]Faculty of Physics, University of Vienna, 1090 Vienna, Austria; [11]Department of Environmental Science (ACES), University of Stockholm, SE-10691 Stockholm, Sweden; [12]Atmospheric Chemistry Department, Max Planck Institute for Chemistry, 55128 Mainz, Germany; [13]Climate and Atmosphere Research Center, The Cyprus Institute, Nicosia, 2121, Cyprus; [14]Department of Chemistry & CIRES, University of Colorado Boulder, Boulder, CO, United States of America; [15]Aerodyne Research, Inc., Billerica, MA, United States of America

11:15-11:30 **ATAS-18-02 |** Methanesulfonic Acid's Role in Sulfuric Acid-Base Nucleation
JACK JOHNSON[1], Coty Jen[1] | [1]Carnegie Mellon University, Pittsburgh, United States of America

11:30-11:45 **ATAS-18-03 |** Atmospheric new particle formation in India: Current understanding and knowledge gaps
VIJAY KANAWADE[1], Mathew Sebastian[1], Rakesh Hooda[2], Antti Hyvärinen[2] | [1]University Of Hyderabad, Hyderabad, India; [2]Finnish Meteorological Institute, Helsinki, Finland

11:45-12:00 **ATAS-18-04 |** Hidden NPF, CCN formation and haze
Markku Kulmala[1], VELI-MATTI KERMINEN[1] | [1]University Of Helsinki, Helsinki, Finland

12:00-12:15 **ATAS-18-05 |** Molecular understanding of the new particle growth in urban Beijing
XIAOXIAO LI[1], Yuyang Li[1], Runlong Cai[2], Chao Yan[2], Yishuo Guo[3], Markku Kulmala[2,3], Jiming Hao[1], James Smith[4], Jingkun Jiang[1] | [1]Tsinghua University, Beijing, China; [2]University of Helsinki, Helsinki, Finland; [3]Beijing University of Chemical Technology, Beijing, China; [4]University of California, Irvine, Irvine, USA

12:15-12:30 **ATAS-18-06 |** Measuring nucleator molecules across the troposphere during the HALO BLUESKY/CAFE-EU aircraft mission with SCORPION
MARTIN HEINRITZI[1], Marcel Zauner-Wieczorek[1], Manuel Granzin[1], Adelaide Dinoi[1], Joachim Curtius[1] | [1]Institute For Atmospheric And Environmental Sciences, Goethe University Frankfurt, Frankfurt Am Main, Germany

BACKUP TALK

ATAS-P3-047 | Chemical Composition Of Ambient Clusters Contributing To The Nighttime Clustering Events In A Wetland, Southern Finland
WEI HUANG[1], Olga Garmash[2], Katrianne Lehtipalo[1], Janne Lampilahti[1], Heikki Junninen[3], Lei Yao[1], Sara Blichner[4], Diego Aliaga[1], Markku Kulmala[1], Federico Bianchi[1] | [1]University Of Helsinki, Helsinki, Finland; [2]Tampere University, Tampere, Finland; [3]University of Tartu, Tartu, Finland; [4]Stockholm University, Stockholm, Sweden

11:00-12:30 **MC2 HALL**

AH-4: Organic aerosols: from emissions to toxicity assessment

Chairs: **Gerhard Lammel** (CZECH REPUBLIC), **Caroline Scaramboni** (SWEDEN)

11:00-11:15 **AH-4-01 |** Particulate PAHs in aerosols from ten different cookstove and biomass combinations – Emission factors and compound distribution
ANGE SABINE INGABIRE[1,2], Natxo García-López[1], Robert Lindgren[1], Lisa Lundin[3], Christoffer Boman[1] | [1]Umeå University, Department of Applied Physics and Electronics, Umeå, Sweden; [2]Department of Chemistry, School of Science, College of Science and Technology, University of Rwanda, Kigali, Rwanda; [3]Umeå University, Department of Chemistry, Umeå, Sweden

11:15-11:30 **AH-4-02 |** Inhalation bioaccessibility of PAHs in ambient aerosols – significance of the gas phase
Thomas Berkemeier[2], Pourya Shahpoury[2,3], Zoran Kitanovski[2], Petr Kukucka[1], Marios Kyprianou[4], Jiri Novak[1], Kurt Lucas[2], Petra Pribylova[1], Roman Prokes[1], Ondrej Sanka[1], Marco Wietzoreck[2], Klara Hilscherova[1], Ulrich Pöschl[2], Euripides Stephanou[4,5], GERHARD LAMMEL[1,2] | [1]RECETOX, Masaryk University, Brno, Czech Republic; [2]Max Planck Institute for Chemistry, Mainz, Germany; [3]Trent University, Peterborough, Canada; [4]Cyprus Institute, Aglantzia, Cyprus; [5]University of Crete, Heraklion, Greece

11:30-11:45 **AH-4-03 |** Cardiovascular responses to the cooking aerosol exposure
Motahareh Naseri[1], MEHDI AMOUEI TORKMAHALLEH[6], Seyedeh mohadeseh kazemitabar[2], Milad Malekipirbazari[3], Dhawal Shah[1], Flemming Cassee[4], Giorgio Buonanno[5], Luca Stabile[5] | [1]Nazarbayev University, Astana, Kazakhstan; [2]Chemical engineering department, Payam Noor University, , Tehran, Iran; [3] Department of Industrial Engineering Bilkent University, Bilkent, Ankara, Turkey; [4]National Institute for Public Health and the Environment, , Bilthoven, Netherlands; [5] Department of Civil and Mechanical Engineering University of Cassino and Southern Lazio, via Di Biasio 43, Astana, Italy; [6]University Of Illinois At Chicago, Chicago, United States of America

11:45-12:00 **AH-4-04 |** Effect of Atmospheric Aging on Soot Particle Toxicity in Airway Epithelial-Endothelial Co-culture Models at the Air–Liquid Interface: Differential Toxicological Impacts of Biogenic and Anthropogenic Secondary Organic Aerosols (SOAs)

SVENJA OFFER[1,2], Sebastiano Di Bucchianico[1], Hendryk Czech[1,2], Michal Pardo[3], Yinon Rudich[3], Ralf Zimmermann[1,2], aeroHEALTH consortium[4] | [1]Joint Mass Spectrometry Center (JMSC) at Comprehensive Molecular Analytics (CMA), Helmholtz Zentrum München, Neuherberg, Germany; [2]JMSC at Analytical Chemistry, Institute of Chemistry, University of Rostock, Rostock, Germany; [3]Department of Earth and Planetary Sciences, Weizmann Institute of Science, Rehovot, Israel; [4]German-Israeli Helmholtz International Laboratory aeroHEALTH (www.aerohealth.eu)

12:00-12:15 **AH-4-05 |** In vitro cytotoxicity and genotoxicity of retene, a polycyclic aromatic hydrocarbon found in aerosol from regions affected by biomass burning

CAROLINE SCARAMBONI[1,2], Daniel Junqueira Dorta[2], Maria Lúcia Arruda de Moura Campos[2], Danielle Palma de Oliveira[3], Silvia Regina Batistuzzo de Medeiros[4], Marcos Felipe de Oliveira Galvão[1], Kristian Dreij[1] | [1]Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden; [2]Department of Chemistry, Faculty of Philosophy, Sciences and Letters at Ribeirão Preto, University of São Paulo, Ribeirão Preto, Brazil; [3]School of Pharmaceutical Sciences of Ribeirão Preto, University of São Paulo, Ribeirão Preto, Brazil; [4]Department of Cell Biology and Genetics, Federal University of Rio Grande do Norte, Natal, Brazil

12:15-12:30 **AH-4-06 |** Impact of sequential exposures to allergens and high organic ultrafine particles on human bronchial epithelial BEAS-2B cells at the air liquid interface

ELIAS JOSEF ZIMMERMANN[1,2], Joana Candeias[3], Christoph Bisig[1], Nadine Gawlitta[1,2], Stephanie Binder[1,2], Jana Pantzke[1,2], Svenja Offer[1,2], Anja Huber[1], Jeroen Buters[3], Sebastiano Di Bucchianico[1], Sebastian Oeder[1], Ralf Zimmermann[1,2] | [1]Joint Mass Spectrometry Center (JMSC) at Comprehensive Molecular Analytics (CMA), Helmholtz Zentrum München, Munich, Germany; [2]Joint Mass Spectrometry Center (JMSC) at Analytical Chemistry, Institute of Chemistry, University of Rostock, Rostock, Germany; [3]Center for Allergy and Environment (ZAUM), Technical University Munich, Munich, Germany

BACKUP TALK **AH-eP3-008 |** Indoor PM2.5 in a woodburning town in New Zealand

GUY COULSON[1], Ian Longley[1], Elizabeth Somervell[1], Gustavo Olivares[1] | [1]National Institute Of Water And Atmospheric Research, Auckland, New Zealand

11:00-12:30 CONFERENCE I HALL

SS-4: Aerosols in agriculture and livestock sectors

Chairs: **Marco Ravina** (ITALY), **Siegfried Schobesberger** (FINLAND)

11:00-11:15 **SS-4-01 |** New particle formation from agricultural recycling of organic waste products

Raluca Ciuraru[1], STUD KAWSSAR HAIDER[2], Julien Kammer[1], Marin M Vojkovic[2], Yvain Carpentier[2], Ing Florence Lafouge[1], MsC Corentin Berger[1], Marjolaine Bourdat-Deschamps[1], Ismael I K. Ortega[3], Florent Levavasseur[1], Sabine Houot[1], Benjamin Loubet[1], Denis Petitprez[4], Cristian Focsa[2] | [1]INRAE, Université Paris-Saclay, AgroParisTech, UMR ECOSYS, Thiverval-Grignon, France; [2]Univ. Lille, CNRS, UMR 8523, PhLAM – Laboratoire de Physique des Lasers Atomes et Molécules, Villeneuve d'Ascq, France; [3]Multi-physics for Energetics Department, ONERA Université Paris Saclay, Paris, France; [4]Univ. Lille, CNRS, UMR 8522, PC2A – Laboratoire de Physico-Chimie des Processus de Combustion de l'Atmosphère, F-59000 Lille, France, Villeneuve d'Ascq, France

11:15-11:30 **SS-4-02 |** Atmospheric acidity and its impacts on macronutrient deposition and plant growth

ANDREA ARANGIO[1], Kalliopi Violaki[1], Juan-Carlos Quezada Rivera[2], Megan He[1], Ghislain Motos[1], Luca Bragazza[2], Charlotte Grissiord[4], Alexandre Buttler[5], Athanasios Nenes[1] | [1]Laboratory of Atmospheric Processes and their Impact, Ecole Polytechnique Federale De Lausanne, Lausanne, Switzerland; [2]Agroscope, Nyon, Switzerland; [3]Plant Ecology Research Laboratory (PERL), Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland; [4]Swiss Federal Institute for Forest, Snow, And Landscape Research WSL, Lausanne, Switzerland; [5]Laboratory of ecological systems EOS, Ecole Polytechnique Federale de Lausanne, Lausanne, Switzerland; [6]Institute for Chemical Engineering Sciences, Foundation for Research and Technology Hellas, Patras, Greece

11:30-11:45 **SS-4-03 |** Ammonia emission rates for agricultural point and area sources assessed via airborne flux measurements using chemical ionization mass spectrometry

SIEGFRIED SCHOBESBERGER[1,2], Emma D'Ambro[2], Ben Lee[2], Qiaoyun Peng[2], Mikhail Pekour[3], Jerome Fast[3], Joel Thornton[2] | [1]University Of Eastern Finland, Kuopio, Finland; [2]University of Washington, Seattle, USA; [3]Pacific Northwest National Laboratory, Richland, USA

11:45-12:00 **SS-4-04 |** Nitrogen and sulphur compounds from animal agriculture and their potential interactions for aerosol forming reactions

PHILIP SILVA[1], Paul Van Rooy[2], David Cocker[2], Katie Purvis-Roberts[3], Matthew Nee[4] | [1]USDA-ARS, Bowling Green, United States of America; [2]University of California, Riverside, United States of America; [3]Claremont McKenna, Pitzer, and Scripps Colleges, Claremont, United States of America; [4]Western Kentucky University, Bowling Green, United States of America

12:00-12:15 **SS-4-05 |** Evaluating the environmental footprint of mink farming in Denmark

LISE FROHN[1], Jesper Bak[2], Jørgen Brandt[1], Jesper Christensen[1], Steen Gyldenkærne[1], Camilla Geels[1] | [1]Aarhus University, Department Of Environmental Science, Roskilde, Denmark; [2]Aarhus University, Department of Ecoscience, Aarhus, Denmark

12:15-12:30 **SS-4-06 |** Policy Domains of Nitrogen Deposition and PM Sensitivity to Ammonia and Nitrate throughout Europe

ATHANASIOS NENES[1,2], Stelios Kakavas[1,3], Spyros Pandis[1,3] | [1]Foundation for Research and Technology Hellas, Patras, Greece; [2]Ecole Polytechnique fédérale de Lausanne, Lausanne, Switzerland; [3]University of Patras, Patras, Greece

BACKUP TALK

SS4-P1-006 | Toxicity score of aerosols in rural and urban areas, with a focus on the Po Valley, Italy

MARCO RAVINA[1], Deborah Panepinto[1], Mariachiara Zanetti[1] | [1]Turin Polytechnic, Turin, Italy

12:30-13:30

Lunch Break

12:30-13:30 **CONFERENCE I HALL**

WG chairs/co-chairs Meeting

13:30-15:00 **TRIANTI HALL**

ATAS-19: Source apportionment in different regions II

Chairs: **Lynn Russell** (USA), **Anja Tremper** (UNITED KINGDOM)

13:30-13:45 **ATAS-19-01 |** Urban air pollution in the global hotspot of the Western Balkans region: lessons learned from the Sarajevo Canton Winter Field Campaign 2018 (SAFICA)

KATJA DŽEPINA[1,2,3], Vaios Moschos[3], Anna Tobler[3,4], Francesco Canonaco[3,4], Deepika Bhattu[3,5], Roberto Casotto[3], Athanasia Vlachou[3], Stamatios Giannoukos[3,6], Tianqu Cui[3], Manousos I. Manousakas[3], Houssni Lamkaddam[3], Kaspar R. Dällenbach[3], Markus Furger[3], Jasna Huremović[7], Sabina Žero[7], Enis Omerčić[8], Sanela Salihagić[9], Adnan Mašić[10], Gordana Pehnec[11], Ranka Godec[11], Ivana Jakovljević[11], Silva Žužul[11], Jasmina Rinkovec[11], Ivan Bešlić[11], Anne Kasper-Giebl[12], Peter Redl[12], Sanja Frka[13], Gaëlle Uzu[14], Jean-Luc Jaffrezo[14], Karla Pavlović[15], Nino Požar[15], Juan J. Castillo[16], Sergio Sanchez[16], Noah Kittner[17], Sönke Szidat[18], Gary Salazar[18], Stephan Borrmann[2], Ulrich Pösch[2], Urs Baltensperger[3], Jay G. Slowik[3], Imad El Haddad[3], Andre S.H. Prevot[3], Griša Močnik[1] | [1]University Of Nova Gorica, Ajdovščina, Slovenia; [2]Max Planck Institute for Chemistry, Mainz, Germany; [3]Paul Scherrer Institute, Villigen, Switzerland; [4]Datalystica Ltd., Villigen, Switzerland; [5]Indian Institute of Technology Jodhpur, Rajasthan, India; [6]Eidgenössische Technische Hochschule (ETH), Zürich, Switzerland; [7]Department of Chemistry, Faculty of Science, University of Sarajevo, Sarajevo, Bosnia and Herzegovina; [8]Federal Hydrometeorological Institute of Bosnia and Herzegovina, Sarajevo, Bosnia and Herzegovina; [9]Institute for Public Health of the Sarajevo Canton, Sarajevo, Bosnia and Herzegovina; [10]Mechanical Engineering Faculty, University of Sarajevo, Sarajevo, Bosnia and Herzegovina; [11]Institute for Medical Research and Occupational Health, Zagreb, Croatia; [12]Technical University of Vienna, Vienna, Austria; [13]Ruđer Bošković Institute, Zagreb, Croatia; [14]Institute for Environmental Geosciences, Grenoble, France; [15]University of Rijeka, Rijeka, Croatia; [16]Clean Air Institute, Washington DC, USA; [17]University of North Carolina at Chapel Hill, Chapel Hill, USA; [18]University of Bern, Bern, Switzerland

13:45-14:00 **ATAS-19-02 |** Primary sources of submicron organic aerosol in the Eastern Mediterranean. How and why are they different from the rest of Europe

MICHAEL PIKRIDAS[1], Aliki Christodoulou[1,2], Ghen Gang[3], Iasonas Stavroulas[1], Stéphane Sauvage[2], Konstantina Oikonomou[1], Chrysanthos Savvides[4], Jean Sciare[1] | [1]Climate, Atmosphere Research Centre (CARE-C),The Cyprus Institute, Nicosia 1645, Cyprus; [2]IMT Lille Douai, Institut Mines-Télécom, Univ. Lille, Centre for Energy and Environment, Lille 59000, France; [3]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, CH-5232 , Switzerland; [4]Ministry of Labour and Social Insurance, Department of Labour Inspection (DLI), Nicosia, Cyprus

14:00-14:15 **ATAS-19-03 |** Deriving factor-specific PM2.5 concentration fields in areas lacking detailed monitoring

IDIT BELACHSEN[1], David Broday[1] | [1]Department of Civil and Environmental Engineering, Technion, Israel Institute of Technology, Haifa, Israel

14:15-14:30 **ATAS-19-04 |** Elemental composition of Amazonian biogenic aerosol particles in relation to emission sources and mechanisms

LESLIE ANN KREMPER[1], Sebastian Brill[1], Jan-David Förster[1], Maria Prass[1], Daniel Moran-Zuloaga[1], Paulo Artaxo[2], Ulrich Pöschl[1], Konrad Kandler[3], Christopher Pöhlker[1] | [1]Max Planck Institute for Chemistry, Mainz, Germany; [2]Institute of Physics, University of São Paulo, São Paulo, Brazil; [3]Institute of Applied Geosciences, Darmstadt University of Technology, Darmstadt , Germany

14:30-14:45 **ATAS-19-05 |** High Latitude Dust: In-situ aerosol measurements in Iceland and Antarctica

PAVLA DAGSSON WALDHAUSEROVA[1] | [1]Agricultural University Of Iceland, Reykjavik, Iceland

14:45-15:00 **ATAS-19-06 |** Comparison of Marine Aerosol Organic Composition with Sea Surface Microlayer and Seawater from the North Atlantic Ocean

LYNN RUSSELL[1], S. L. Lewis[1], G. Saliba[2], A. A. Frossard[3] | [1]Scripps Institution of Oceanography, University of California, San Diego, La Jolla, United States of America; [2]California Air Resources Board, Sacramento, United States of America; [3]Department of Chemistry, University of Georgia, United States of America

BACKUP TALK

ATAS-P2-070 | Source apportionment analysis at an urban background site, a roadside site, and the resulting roadside increment in London, UK

ANJA TREMPER[1], William Hicks[1], Max Priestman[1], Manousos Ioannis Manousakas[3], Andre Prevot[3], Gang Chen[3], David Green[1,2] | [1]MRC Centre for Environment and Health, Environmental Research Group, Imperial College London, London, United Kingdom ; [2]NIHR HPRU in Environmental Exposures and Health, Imperial College London, London, United Kingdom; [3]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen , Switzerland

13:30-15:00 **MULTIPURPOSE HALL**

AMT-8: Novel Measurement Techniques II

Chairs: **Anastasios Melas** (ITALY), **Grisa Mocnik** (SLOVENIA)

13:30-13:45 **AMT-8-01 |** PALMS-NG: a new airborne single particle mass spectrometer

JUSTIN JACQUOT[1], X. Shen[1], K. Slovacek[2], G. Schill[2,3], M. J. Lawler[2,3], D. Thomson[4], K. Froyd[2], D. M. Murphy[3], D. J. Cziczo[1] | [1]Department of Earth, Atmospheric and Planetary Sciences, Purdue University, West Lafayette, IN, , United States of America; [2]Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, CO, , United States of America; [3]Chemical Sciences Laboratory, National Oceanic and Atmospheric Administration, Boulder, CO, , United States of America; [4]Original Code Consulting, Boulder, CO, , United States of America

13:45-14:00 **AMT-8-02 |** A dual-wavelength photothermal aerosol absorption monitor: design, calibration and performance

Luka Drinovec[1,2,3], Uroš Jagodič[2,3], Luka Pirker[3,4], Miha Škarabot[3], Mario Kurtjak[3], Kristijan Vidović[5], Luca Ferrero[6], Bradley Visser[7], Jannis Röhrbein[7], Ernest Weingartner[7], Daniel M. Kalbermatter[8], Konstantina Vasilatou[8], Tobias Bühlmann[8], Celine Pascale[8], Thomas Müller[9], Alfred Wiedensohler[9], GRISA MOCNIK[1,2,3] | [1]University Of Nova Gorica, Ajdovscina, Slovenia; [2]Haze Instruments d.o.o. , Ljubljana, Slovenia; [3]Jožef Stefan Institute, Ljubljana, Slovenia; [4]University of Ljubljana, Ljubljana, Slovenia; [5]National Institute of Chemistry, Ljubljana, Slovenia; [6]University of Milano-Bicocca, Milano, Italy; [7]University of Applied Sciences NW Switzerland, Windisch, Switzerland; [8]Federal Institute of Metrology METAS, Bern, Switzerland; [9]Leibniz Institute for Tropospheric Research, Leipzig, Germany

14:00-14:15 **AMT-8-03 |** Calibration of aerosol nitrogen and carbon species for the Aerodyne aerosol mass spectrometer with total particulate nitrogen and carbon measurements

ANN MIDDLEBROOK[1], Derek J. Price[1,2], Alison M. Piasecki[1,2], Rishabh U. Shah[1,2,3], Katherine L. Hayden[4], James B. Burkholder[1], James M. Roberts[1] | [1]NOAA Chemical Sciences Laboratory, Boulder, United States of America; [2]Cooperative Institute for Research in Environmental Sciences, University of Colorado, Boulder, United States of America; [3]Aclima, Inc., San Francisco, United States of America; [4]Air Quality Research Division, Environment and Climate Change Canada, Toronto, Canada

14:15-14:30 **AMT-8-04 |** MEMS-based electrical nanoparticle counter using heterogeneous growth of water droplets and capacitive counting methods for ubiquitous monitoring of airborne nanoparticle

SEONG-JAE YOO[1], Seong-Jae Yoo[1] | [1]Yonsei University, Seoul, Korea, Republic of

14:30-14:45 **AMT-8-05 |** Single aerosol particle detection by acoustic impaction

NADINE KARLEN[1], Tobias Rüggeberg[1], Peter Steigmeier[1], Patrick Specht[1], Ernest Weingartner[1] | [1]Institute for Sensors and Electronics, University of Applied Sciences FHNW, Windisch, Switzerland

14:45-15:00 **AMT-8-06 |** Using optical tweezers to observe charging of individual aerosol particles

ISAAC CD LENTON[1], Andrea Stoellner[1], Scott R Waitukaitis[1] | [1]Institute Of Science And Technology Austria, Klosterneuburg, Austria

BACKUP TALK

AMT-eP1-006 | A unique laboratory aerosol Pi-polarimeter for quantitative lidar particles depolarization ratios retrievals
DANAËL CHOLLETON[1], Patrick Rairoux[1], Alain Miffre[1] | [1]Institute Of Light And Matter, Villeurbanne, France

13:30-15:00 **MC3 HALL**

ATAS-20: New particle formation and atmospheric ice nucleation

Chairs: **Zamin Kanji** (SWITZERLAND), **Kari Lehtinen** (FINLAND)

13:30-13:45 **ATAS-20-01 |** Survival probability of new particles: from theory to measurements
RUNLONG CAI[1], Juha Kangasluoma[1,2], Dominik Stolzenburg[1], Jingkun Jiang[3], Academic Markku Kulmala[1,4,5] | [1]University Of Helsinki, Helsinki, Finland; [2]Karsa Ltd, Helsinki, Finland; [3]Tsinghua University, Beijing, China; [4]Beijing University of Chemical Technology , Beijing, China; [5]Nanjing University, Nanjing, China

13:45-14:00 **ATAS-20-02 |** Atmospheric salt nanoparticle formation
S. Chee[1], K. Barsanti[2], J. Smith[1], N. MYLLYS[3] | [1]Department of Chemistry, University of California, Irvine, 92617, USA, [2]Department of Chemistry, University of California, Riverside, 92507, USA, [3]Department of Chemistry, University of Jyväskylä, 40014, Finland

14:00-14:15 **ATAS-20-03 |** From aerosol size distribution measurements to process rates using Kalman smoothing
KARI LEHTINEN[1] | [1]University Of Eastern Finland, Kuopio, Finland

14:15-14:30 **ATAS-20-04 |** Do plastics make clouds? Ice nucleation onto model nanoplastics in the cirrus cloud regime
OMAR GIRLANDA[1], Guangyu Li[1], Denise M. Mitrano[1], Zamin A. Kanji[1] | [1]ETH Zurich, Zurich, Switzerland

14:30-14:45 **ATAS-20-05 |** Ice affinity purification and characterization experiments applied to ice nucleating macromolecules from birch pollen-new insights to their properties
FLORIAN REYZEK[1,2], Nadine Bothen[2], Ralph Schwidetzky[3], Teresa Seifried[1], Paul Bieber[1], Konrad Meister[4], Mischa Bonn[3], Ulrich Pöschl[2], Janine Fröhlich-Nowoisky[2], Hinrich Grothe[1] | [1]Institute of Materials Chemistry, Vienna University Of Technology, Vienna, Austria; [2]Multiphase Chemistry Department, Max Planck Institute for Chemistry, Mainz, Germany; [3]Molecular Spectroscopy Department, Max Planck Institute for Polymer Research, Mainz, Germany; [4]Department of Natural Sciences, University of Alaska Southeast, Juneau, USA

14:45-15:00 **ATAS-20-06 |** Effect of Acidity and Liquid-Liquid Phase Separation on Heterogeneous Ice Nucleation
ZIYING (NANCY) LEI[1], Sarah Brooks[1] | [1]Texas A&m University, College Station, United States of America

BACKUP TALK

ATAS-P3-046 | Ice-nucleating particle measurements during the CALISHTO campaign at Mt. Helmos
OTTMAR MÖHLER[1], Franziska Vogel[1], P. Fetfatzis[2], M. Gini[2], O. Zografou[2], R. Foskinis[2,3], Kristina Höhler[1], Larissa Lacher[1], Athanasios Nenes[4,5], Kostas Eleftheriadis[2] | [1]Karlsruhe Institute of Technology, Karlsruhe, Germany; [2]NCSR "Demokritos", Attiki, Greece; [3]National and Technical University of Athens, Athens, Greece; [4]École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland; [5]FORTH, Patras, Greece

13:30-15:00 **MC2 HALL**

AH-5: Health impacts and impact assessment of exposure to airborne particles

Chairs: **Mihalis Lazaridis** (GREECE), **Zaheer Ahmad Nasar** (UNITED KINGDOM)

13:30-13:45 **AH-5-01 |** Effect of particulate matter and black carbon on cardiovascular health- a panel study in the most polluted city of Delhi

KASHISH JAIN[1], Gazala Habib[1], Sandeep Singh[2], Santu Ghosh[3] | [1]Department of Civil Engineering, Indian Institute of Technology Delhi, New Delhi, India; [2]Department of Cardiology, All India Institute of Medical Sciences, New Delhi, India; [3]Department of Biostatistics, St. John's Medical College and Hospital, Bengaluru, India

13:45-14:00 **AH-5-02 |** Exploring the impact of particulate matter on respiratory and cardiovascular mortality in coastal Mediterranean environments

ANASTASIA PASCHALIDOU[1], Kyriaki Psistaki[1], Souzana Achilleos[2], Paraskevi Begou[3], Ioannis Dokas[1], Nicos Middleton[4] | [1]Democritus University of Thrace, Komotini, Greece; [2]University of Nicosia Medical School, Nicosia, Cyprus; [3]University of Ioannina, Ioannina, Greece; [4]Cyprus University of Technology, Limassol, Cyprus

14:00-14:15 **AH-5-03 |** Short-term effects of regional background levels of particulate matter on daily mortality in the eastern Mediterranean

NIKOS KALIVITIS[1], Souzana Achilleos[2,3], Nicos Middleton[4], Panayiotis Yiallouros[5], Stefania Papatheodorou[3,6], Nikolaos Mihalopoulos[1,7], Petros Koutrakis[6] | [1]ECPL, Department of Chemistry, University Of Crete, Heraklion, Greece; [2]Department of Primary Care and Population Health, University of Nicosia Medical School, Nicosia , Cyprus; [3]Cyprus International Institute for Environmental and Public Health, Faculty of Health Sciences, Cyprus University of Technology, Limassol, Cyprus; [4]Department of Nursing, Faculty of Health Sciences, Cyprus University of Technology, Limassol, Cyprus; [5]Medical School, Cyprus University, Nicosia , Cyprus; [6]Department of Environmental Health, Harvard T.H. Chan School of Public Health, Harvard University, Boston, USA; [7]IERSD, National Observatory of Athens, Palea Penteli, Greece

14:15-14:30 **AH-5-04 |** Non-inclusion of all carcinogenic PAHs associated with respirable aerosol particles strongly underestimates the potential human lifetime cancer risk in urban areas

MINAS IAKOVIDES[1], Giannis Iakovides[2], Euripides G. Stephanou[1,3] | [1]Climate and Atmosphere Research Center, The Cyprus Institute, 2121, Aglantzia/Nicosia, Cyprus; [2]Department of Mathematics and Applied Mathematics, University of Crete, 70013, Heraklion Crete, Greece; [3]Department of Chemistry, University of Crete, 70013, Heraklion Crete, Greece

14:30-14:45 **AH-5-05 |** Time trends of PM2.5 exposure between 2000 to 2018 in the SCAPIS cohort

PETER MOLNÁR[1], Cecilia Bennet[2], Kristina Eneroth[3], Susanna Gustafsson[4], Jenny Lindvall[3], David Segersson[2], Mårten Spanne[4] | [1]Occupational and Environmental medicine, University of Gothenburg, Gothenburg, Sweden; [2]Swedish Meteorological and Hydrological Institute, Norrköping, Sweden; [3]SLB-analys, Environment and Health Administration, Stockholm, Sweden; [4]Environmental Department, City of Malmö, Malmö, Sweden

14:45-15:00 **AH-5-06 |** Can we detect early signs of lung disease in welders using Airspace Dimension Assessment (AiDA) with airborne nanoparticles?

MADELEINE PETERSSON SJÖGREN[1,2], Per Wollmer[3,4], Karin Broberg[5,6], Eva Assarsson[5], Sara Thuresson[1,2], Katrin Dierschke[5], Monica Kåredal[2,5], Maria Hedmer[2,5], Jenny Rissler[1,2,7], Jakob Löndahl[1,2] | [1]Ergonomics and Aerosol Technology, Lund University, Lund, Sweden; [2]NanoLund, Lund, Sweden; [3]Translational Medicine, Clinical Physiology and Nuclear Medicine, Lund University, Skåne University Hospital, Malmö, Sweden; [4]Clinical Sciences, Lund University, Malmö, Sweden; [5]Occupational and Environmental Medicine, Department of Laboratory Medicine, Lund University, Lund, Sweden; [6]Institute of Environmental Medicine, Karolinska Institutet, Stockholm, Sweden; [7]RISE Research Institutes of Sweden, Borås, Sweden

13:30-15:00 **CONFERENCE I HALL**

BAP-5: Aerosol transport properties and fluid dynamics

Chairs: **Daniel O'Sullivan** (UNITED KINGDOM), **Una Trivanovic** (SWITZERLAND)

13:30-13:45 **BAP-5-01 |** Generation of hazardous aerosol droplets by a liquid jet impingement onto a solid surface
MODOU MBAYE[1], Mamadou Sow[1], Christophe Josserand[2] | [1]Irsn, Gif Sur Yvette, France; [2]LadhyX - Ecole polytechnique, Palaiseau , France

13:45-14:00 **BAP-5-02 |** A study of turbulent coagulation in a jet with discretised population balance and DNS
MALAMAS TSAGKARIDIS[1], Stelios Rigopoulos[1], George Papadakis[2] | [1]Department of Mechanical Engineering, Imperial College London, London, United Kingdom ; [2]Department of Aeronautics, Imperial College London, London, United Kingdom

14:00-14:15 **BAP-5-03 |** The inadequacies of common theoretical and numerical tools to predict ion mobilities on par with experimental observations and how to overcome them
Viraj Gandhi[1,2], Xuemeng Chen[1,3], CARLOS LARRIBA-ANDALUZ[1] | [1]IUPUI, Indianapolis, United States of America; [2]Purdue University, West Lafayette, United States of America; [3]University of Tartu, Tartu, Estonia

14:15-14:30 **BAP-5-04 |** Microparticle resuspension under accelerated airflow: dimensional analysis to account for the airflow pattern properties
CORENTIN CAZES[1], Félicie Théron[1], Lionel Fiabane[2], Laurence Le Coq[1], Dominique Heitz[2] | [1]IMT Atlantique, Nantes, France; [2]INRAE, Rennes, France

14:30-14:45 **BAP-5-05 |** Comparative aerosolization studies using bacteriophages MS2 and phi6 as viral surrogates
BERNADETTE FÜHRER[1], Christopher Hartl[1], Nikolaus Lorbeer[1], Matthias Kaiser[1], Uwe Häfner[2], Gabriele Ettenberger-Bornberg[1] | [1]OFI - Austrian Research Institute for Chemistry and Technology, Vienna, Austria; [2]Freudenberg Filtration Technologies SE & Co. KG, 69469, Weinheim, Germany, Weinheim, Germany

14:45-15:00 **BAP-5-06 |** Modelling micro-particle transient resuspension kinetics in a ventilated duct during the fan start
JESICA GISELE BENITO[1], Félicie Theron[2], Laurence Le Coq[2], Rodolfo Uñac[1], Ana María Vidales[1] | [1]INFAP, CONICET, Universidad Nacional de San Luis, San Luis, Argentina; [2]GEPEA-CNRS UMR 6144, IMT Atlantique, Nantes, France

BACKUP TALK **BAP-P3-015 |** Large eddy simulations of Iron(III) oxide nanoparticle synthesis in spray flames
SEUNG-JIN BAIK[1], Irenäus Wlokas[1], Andreas Kempf[1] | [1]Chair of Fluid Dynamics, Institute for Combustion and Gasdynamics (IVG), University of Duisburg-Essen, Duisburg, Germany

15:00-15:30

Coffee Break

15:30-17:00 **TRIANTI HALL**

ATAS-21: Source apportionment of organic aerosol

Chairs: **Laurent Poulain** (GERMANY), **Roberta Vecchi** (ITALY)

15:30-15:45 **ATAS-21-01 |** Chemical composition and source apportionment of fine aerosol in the port city of Piraeus, Greece

GEORGIOS GRIVAS[1], Eleni Liakakou[1], Iasonas Stavroulas[1,2], Panayiotis Kalkavouras[1,2], Maria Lianou[1], Maria Tsagkaraki[2], Kyriaki Papoutsidaki[2], Pavlos Zarmpas[2], Aikaterini Bougiatioti[1], Nikolaos Mihalopoulos[1,2], Evangelos Gerasopoulos[1] | [1]Institute For Environmental Research And Sustainable Development, National Observatory Of Athens, P. Penteli, Athens, Greece; [2]Environmental Chemical Processes Laboratory, Department of Chemistry, University of Crete, Heraklion, Crete, Greece

16:00-16:15 **ATAS-21-03 |** Highly oxygenated organic molecules at a street canyon and an urban background station in Helsinki

MAGDALENA OKULJAR[1], Olga Garmash[2], Miska Olin[2], Joni Kalliokoski[2], Hilkka Timonen[3], Hanna Manninen[4], Pauli Paasonen[1], Jenni Kontkanen[1], Minna Aurela[3], Jarkko Niemi[4], Mikko Sipilä[1], Topi Rönkkö[2], Tuukka Petäjä[1], Miikka Dal Maso[2], Mikael Ehn[1] | [1]University of Helsinki/INAR, Helsinki, Finland; [2]Tampere University, Helsinki, Finland; [3]Finnish Meteorological Institute, Helsinki, Finland; [4]Helsinki Region Environmental Services Authority, Helsinki, Finland

16:15-16:30 **ATAS-21-04 |** Seasonal changes of sources, volatility, and aging of organic aerosols in eastern Europe reflected in the stable isotopic composition

Agne Masalaite[1], Vidmantas Remeikis[1], Peng Yao[2], Haiyan Ni[2], Rupert Holzinger[3], Noni van Ettinger[2], Dipayan Paul[2], ULRIKE DUSEK[2] | [1]State research institute Center for Physical Sciences and Technology, Vilnius, Lithuania ; [2]Centre for Isotope Research (CIO), University of Groningen, Groningen , the Netherlands ; [3]Institute for Marine and Atmospheric research Utrecht (IMAU), Utrecht University, Utrecht , the Netherlands

16:30-16:45 **ATAS-21-05 |** Long-term PM Chemical Composition and Organic Aerosol (OA) Sources in European Arctic, Svalbard

GANG CHEN[1], Manousos-Ioannis Manousakas[1], Chris Lunder[2], Wenche Aas[2], Stephen Platt[2], Karl Espen Yttri[2], Jay Slowik[1], André Prévôt[1] | [1]Paul Scherrer Institute, Villigen, Switzerland; [2]NILU (Norwegian Institute for Air Research), Kjeller, Norway

16:45-17:00 **ATAS-21-06 |** Source apportionment of organic aerosol over western Mediterranean insular remote environments (Corsica and Mallorca sites)

BENJAMIN CHAZEAU[1,2], Jorge Pey[3], Brice Temime-Roussel[1], Miriam Elser[2,4], Noemi Perez[5], Langley Dewitt[1,6], José Carlos Cerro[7], François Dulac[8], Xavier Querol[5], Henri Wortham[1], Andre Prevot[2], Nicolas Marchand[1] | [1]Aix Marseille Univ., CNRS, LCE, Marseille, France; [2]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, Switzerland; [3]ARAID-Instituto Pirenaico de Ecología - CSIC, Zaragoza, Spain; [4]Swiss Federal Laboratories for Materials Science and Technology, Automotive Powertrain Technologies, Dübendorf, Switzerland; [5]Institute of Environmental Assessment and Water Research, IDÆA-CSIC, Barcelona, Spain; [6]IGAC International Project Office, Boulder, USA; [7]Laboratory of Environmental Analytical Chemistry, Illes Balears University, Palma de Mallorca, Spain; [8]LSCE-CEA/IPSL, CEA Saclay 701, Gif-sur-Yvette, France

15:30-17:00 **MULTIPURPOSE HALL**

AMT-9: Novel Measurement Techniques III

Chairs: **Alessandro Bigi** (ITALY), **Michael Pikridas** (CYPRUS)

15:30-15:45 **AMT-9-01 |** In-depth Investigation of Artefacts from Thermal Desorption of Atmospheric Particulate Matter

BARBARA GIOCASTRO[1,2], Elena Hartner[2,3], Thomas Gröger[2], Jan Bendl[1], Uwe Käfer[2,3], Juergen Orasche[2], Mohammad Saraji-Bozorgzad[1], Hendryk Czech[2,3], Juergen Schnelle-Kreis[2], Martin Sklorz[2], Ralf Zimmermann[2,3], Thomas Adam[1,2] | [1]University of the Bundeswehr Munich, Faculty for Mechanical Engineering, Institute of Chemical and Environmental Engineering, Neubiberg, Germany; [2]Joint Mass Spectrometry Centre (JMSC), Cooperation Group Comprehensive Molecular Analytics, Helmholtz Zentrum München, Neuherberg, Germany; [3]Joint Mass Spectrometry Centre (JMSC), Chair of Analytical Chemistry, University of Rostock, Rostock, Germany

15:45-16:00 **AMT-9-02 |** A method to measure the fractional effective densities of low persistency aerosols

LOÏC WINGERT[1], François Gouin[1], Dany Nadeau-Dupuis[1] | [1]IRSST, Montreal, Canada

16:00-16:15 **AMT-9-03 |** Proposal of a standard test method for the quantification of particulate matter during 3D printing and the systematic ranking of filament materials

CHI-LONG TANG[1], Stefan Seeger[1] | [1]Bundesanstalt für Materialforschung und-prüfung (BAM), Berlin, Germany

16:15-16:30 **AMT-9-04 |** Field evaluation of miniature absorption photometers in an Eastern Mediterranean urban environment

IASONAS STAVROULAS[1,2], Michael Pikridas[2], Georgios Grivas[1], Spyridon Bezantakos[2], Eleni Liakakou[1], Panayiotis Kalkavouras[1], Alessandro Bigi[3], Evangelos Gerasopoulos[1], Jean Sciare[2], Nikolaos Mihalopoulos[1,2] | [1]IERSD, National Observatory Of Athens, Athens, Greece; [2]CARE-C, The Cyprus Institute, Nicosia, Cyprus; [3]Department of Engineering, University of Modena and Reggio Emilia, Modena, Italy

16:30-16:45 **AMT-9-05 |** Separating trends in emissions relative to dispersion using dispersion normalized trend analysis

PHILIP HOPKE[1], Yunle Chen[1], David Rich[1] | [1]University Of Rochester School of Medicine and Dentistry, Rochester, United States of America

16:45-17:00 **AMT-9-06 |** Mass metric estimation using tem grids for airborne micrometric particle exposure

CHRISTOPHE BRESSSOT[1], Martin Morgenyer[1], Florian Philippe[1] | [1]UTC, Compiegne, France; [2]INERIS, VERNEUIL EN HALATTE, France

BACKUP TALK

AMT-eP1-005 | Synchrotron-based single-particle techniques for 3D morphology and metal oxidation states of atmospheric aerosols

LI-HAO YOUNG[1], Wan-Yi Chen[1], Chun-Chieh Wang[2], Mau-Tsu Tang[2], Shao-Chin Tseng[2], Bi-Hsuan Lin[2], Li-Ting Wang[1], Wei-Jia Li[1], Tzu-Ting Yang[3], Yao-Tung Lin[4] | [1]China Medical University, Taichung, Taiwan; [2]National Synchrotron Radiation Research Center, Hsinchu, Taiwan; [3]Yuanpei University of Medical Technology, Hsinchu, Taiwan; [4]National Chung Hsing University, Taichung, Taiwan

15:30-17:00 **MC3 HALL**

ATAS-22: Brown carbon optical properties and radiative effects

Chairs: **Paulo Artaxo** (BRAZIL), **James Sherman** (USA)

15:30-15:45 **ATAS-22-01 |** Photoreaction aging of biomass burning brown carbon
CAROLYN LIU-KANG[1], Peter J. Gallimore[2], Tengyu Liu[3], Anna Sokolova[1], Jonathan P.D. Abbatt[1] | [1]University Of Toronto, Toronto, Canada; [2]University of Manchester, Manchester, United Kingdom; [3]Nanjing University, Nanjing, China

15:45-16:00 **ATAS-22-02 |** Linking chromophoric composition with optical characteristics of water-soluble brown carbon in the Indo-Gangetic Plains, India
SAYANTAN SARKAR[1], Supriya Dey[1] | [1]IIT Mandi, Kamand, India

16:00-16:15 **ATAS-22-03 |** Impacts of severe residential wood burning on atmospheric processing, water-soluble organic aerosol and light absorption, in a medium-sized city of Southeastern Europe
DIMITRIS KASKAOUTIS[1], Giorgos Grivas, Konstantina Oikonomou, Popi Tavernaraki, Kyriaki Papoutsidaki, Maria Tsagkaraki, Iasonas Stavroulas, Pavlos Zarmpas, Despoina Paraskevopoulou, Aikaterini Bougiatioti, Eleni Liakakou, Mrs Maria Gavrouzou, Umesh Dumka, Nikolaos Hatzianastassiou, Jean Sciare, Evangelos Gerasopoulos, Nikolaos Mihalopoulos | [1]National Observatory Of Athens, Athens, Greece

16:15-16:30 **ATAS-22-04 |** Brown Carbon Absorption in the Mediterranean Basin under biomass burning activity: A modelling study using WRF-Chem model
GEORGIA METHYMAKI[1], Elissavet Bossioli[1], Athanasios Nenes[2,3], Maria Tombrou[1] | [1]Department of Physics, National And Kapodistrian University Of Athens, Athens, Greece; [2]Laboratory of Atmospheric Processes and their Impacts, School of Architecture, Civil and Environmental Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland; [3]Institute for Chemical Engineering Sciences, Foundation of Research and Technology Hellas, Patras, Greece

16:30-16:45 **ATAS-22-05 |** Experimental Heating Rate of black and brown carbon: an overview from the COLOSSAL campaign and the investigation on the role of clouds in Italy
LUCA FERRERO[1], Asta Gregoric[2,3], Grisa Močnik[3,4], Martin Rigler[2], Sergio Cogliati[1], Niccolò Losi[1], Amedeo Manuel Cefali[1], Luca Di Liberto[5], Francesca Barnaba[5], Vera Bernardoni[6], Francesca Soldan[6], Sara Valentini[6], Gianluigi Valli[6], Roberta Vecchi[6], Ezio Bolzacchini[1] | [1]University Of Milano-bicocca, Milano, Italy; [2]Aerosol d.o.o., Ljubljana, Slovenia; [3]University of Nova Gorica, Ajdovščina, Slovenia; [4]Jožef Stefan Institute, Ljubljana, Slovenia; [5]ISAC-CNR, Rome, Italy; [6]Università degli Studi di Milano , Milano, Italy

16:45-17:00 **ATAS-22-06 |** Light absorption and radiative effects of water-soluble and methanol-soluble brown carbon under high residential wood burning emissions
DIMITRIS KASKAOUTIS[1], Despoina Paraskevopoulou, Giorgos Grivas, Srinivas Bikkina, Eleni Liakakou, Aikaterini Bougiatioti, Iasonas Stavroulas, Maria Tsagkaraki, Kyriaki Papoutsidaki, Konstantina Oikonomou, Mrs Maria Gavrouzou, Nikolaos Hatzianastassiou, Jean Sciare, Evangelos Gerasopoulos, Nikolaos Mihalopoulos | [1]National Observatory Of Athens, Athens, Greece

BACKUP TALK **ATAS-P5-046 |** Site-specific Mass Absorption Cross-section of Elemental Carbon, Brown Carbon, and Mineral Dust at Bhopal, Central India
ANKUR BHARDWAJ[1], Kajal Yadav[1], Diksha Haswani[1], Ramya Sunder Raman[1] | [1]Indian Institute Of Science Education And Research Bhopal, Bhopal, India

15:30-17:00 **MC2 HALL**

AH-6: Aerosol inhalation and deposition studies

Chairs: **Christina Isaxon** (SWEDEN), **Jakob Löndahl** (SWEDEN)

15:30-15:45 **AH-6-01 |** Physical activity changes the deposited fractions of particles in the respiratory tract of adults and children

JULIA DOBRIC[1], Christina Isaxon[1], Emilie Stroh[1], Per Wollmer[1,2], Bo Olsson[3], Jakob Löndahl[1], Jenny Rissler[1,4] | [1]Lund University, Lund, Sweden; [2]Skåne University Hospital, Malmö, Sweden; [3]Emmace Consulting AB, Lund, Sweden; [4]RISE Research Institutes of Sweden, Sweden

15:45-16:00 **AH-6-02 |** Lung Deposition of Inhaled Atmospheric Particles: The Influence of Particle Hygroscopicity

AJIT AHLAWAT[4], Erwin W. Karg[1], Anusmita Das[1], George A. Ferron[1], A. K. Mandariya[3], G. Habib[3], Mira Poehlker[4], Alfred Wiedensohler[5], Ralf Zimmermann[2] | [1]Helmholtz Center Munich, München, Germany; [2]University of Rostock, München, Germany; [3]Civil-Engineering, IIT Delhi, München, India; [4]Experimental Aerosol and Club Microphysics, TROPOS, München, Germany; [5]WCCAP, TROPOS, München, Germany

16:00-16:15 **AH-6-03 |** A metagenomic framework reveals the dissemination scenario of airborne antibiotic resistance genes in an urban wastewater treatment plant

TA-CHIH HSIAO[1], Jui-Hung Yen[1], Hsin-Hsin Tung[1], Wan-Ru Chen[2], Kai-Hsien Chi[3] | [1]National Taiwan University, Taipei, Taiwan; [2]National Cheng Kung University, Tainan, Taiwan; [3]National Yang Ming Chiao Tung University, Taiwan

16:15-16:30 **AH-6-04 |** The lobar deposition of little cigar smoke in Sprague-Dawley rat lungs

Kaisen Lin[1], Christopher Wallis[1], Emily Wong[2], Patricia Edwards[3], Laura Van Winkle[2], ANTHONY WEXLER[1] | [1]Air Quality Research Center, University of California Davis, Davis, United States of America; [2]Department of Anatomy, Physiology & Cell Biology, University of California Davis, Davis, United States of America; [3]Center for the Health and Environment, University of California Davis, Davis, United States of America

16:30-16:45 **AH-6-05 |** Exposure to well-defined PM2.5 alters a contractile response in rat coronary arteries

FANNY BERGMAN[1], Lena Ohlsson[1], Lena Uller[1], Christina Isaxon[1] | [1]Lund University, Lund, Sweden

16:45-17:00 **AH-6-06 |** Efficacy of masks in mitigating respirable aerosol and droplet emission from voice therapy exercises

ALICJA SZCZEPANSKA[1], Joshua Harrison[1], Justice Archer[1], Brian Saccente-Kennedy[2], Ruth Epstein[2], JD Calder[3,4], BR Bzdek[1], JP Reid[1] | [1]School of Chemistry, University of Bristol, Bristol, BS8 1TS, United Kingdom ; [2]Department of Otolaryngology, Royal National Ear, Nose and Throat and Eastman Dental Hospitals, University College London Hospitals NHS Foundation Trust, London, WC1E 6DG, United Kingdom; [3]Department of Bioengineering, Imperial College London, London, SW7 2AZ, United Kingdom; [4]Fortius Clinic, London, W1H 6EQ, United Kingdom

BACKUP TALK

AH-P3-027 | Deposited dose of inhaled particles in the human respiratory tract at a suburban environment

Eleftheria Chalvatzaki[1], Sofia Eirini Chatoutsidou[1], Ilias Kopanakis[1], MIHALIS LAZARIDIS[1] | [1]Technical University Of Crete, Chania, Greece

15:30-17:00 **CONFERENCE I HALL**

BAP-6: Physical properties of aerosols

Chairs: **Katerina (Aikaterini) S. Karadima** (SWITZERLAND), **Georgios Kelesidis** (SWITZERLAND)

15:30-15:55 **BAP-6-KT | KEYNOTE TALK:** Surface growth of soot by reactive molecular dynamics
Anindya Ganguly[1], Xiaoke WANG[1], Khaled Mosharraf Mukut[2], Georgios Kelesidis[3], Somesh Roy[2], EIRINI GOUDELI[1] | [1]The University Of Melbourne, Melbourne, Australia; [2]Marquette University, Milwaukee, USA; [3]ETH Zurich, Zurich, Switzerland

15:55-16:10 **BAP-6-01 |** A novel approach for the calculation of light transmission and absorption by large particles
EMINE KAYAHAN[1], Senne Fransen[2], Tom van Gerven[2], Leen Braeken[1], M. Enis Leblebici[1] | [1]Department of Chemical Engineering, KU Leuven, 3590, Diepenbeek, Belgium; [2]Department of Chemical Engineering, KU Leuven, 3001 Heverlee, Leuven, Belgium

16:10-16:25 **BAP-6-02 |** Effect of Al doping and on the formation and growth of flame-made titania nanoparticles by Molecular Dynamics
DIEGO CHAPARRO[1], Eirini Goudeli[1] | [1]University of Melbourne, Melbourne, Australia

16:25-16:40 **BAP-6-03 |** Utilising physic informed neural network to predict particle collection on a single fibre
AMIN ZARGARAN[1], Hakan Alkaya[1], Uwe Janoske[1] | [1]Bergische Universität Wuppertal, Wuppertal, Germany

16:40-16:55 **BAP-6-04 |** Hygroscopicity and CCN potential of DMS derived aerosol particles
BERNADETTE ROSATI[1,2], Sini Isokääntä[3], Sigurd Christiansen[1,4,5], Mads M. Jensen[1], Shamjad P. Moosakutty[1,6], Robin Wollesen de Jonge[1,7], Andreas Massling[8], Marianne Glasius[1], Jonas Elm[1], Annele Virtanen[3], Merete Bilde[1] | [1]Aarhus University, Aarhus, Denmark; [2]University of Vienna, Vienna, Austria; [3]University of Eastern Finland, Kuopio, Finland; [4]University of the Faroe Islands, Tórshavn, Faroe Islands; [5]Stockholm University, Stockholm, Sweden; [6]Hamad Bin Khalifa University, Doha, Qatar; [7]Lund University, Lund, Sweden; [8]Aarhus University, Roskilde, Denmark

16:55-17:10 **BAP-6-05 |** Heterogeneous nucleation of water onto sub-10 nm nanoplastic particles
PETER WLASITS[1], Ruth Konrat[1], Paul Winkler[1] | [1]University Of Vienna, Vienna, Austria

BACKUP TALK

BAP-P1-013 | Oxidation product characterization from ozonolysis of the diterpene ent-kaurene
YUANYUAN LUO[1], Olga Garmash[1,2], Haiyan Li[1,3], Frans Graeffe[1], Arnaud P. Praplan[4], Anssi Liikanen[4], Yanjun Zhang[1,5], Melissa Meder[1], Otso Peräkylä[1], Josep Peñuelas[6,7], Ana María Yáñez-Serrano[6,7,8], Mikael Ehn[1] | [1]Institute For Atmospheric And Earth System Research/physics, University Of Helsinki, Helsinki, Finland; [2]Aerosol Physics Laboratory, Physics Unit, Tampere University, Tampere, Finland; [3]School of Civil and Environmental Engineering, Harbin Institute of Technology, Shenzhen, China; [4]Atmospheric Composition Research, Finnish Meteorological Institute, Helsinki, Finland; [5]Univ Lyon, Université Claude Bernard Lyon, Villeurbanne , France; [6]CREAF, Bellaterra (Cerdanyola del Vallès), Catalonia, Spain; [7]CSIC, Global Ecology Unit, CREAF-CSIC-UAB, Bellaterra (Cerdanyola del Vallès), Catalonia, Spain; [8]IDAEA-CSIC, Barcelona, Spain

17:00-19:00 **ONLINE PLATFORM**

Virtual Poster Session (see pages 136-149)

20:00-00:00 **DINNER VENUE (BYZANTINE MUSEUM)**

DAY 5 | Friday, 9 September 2022

08:00-17:30 **FOYER ENTRANCE NEW BUILDING**

Registration

08:45-10:00 **TRIANTI HALL**

Plenary Talk 5: Beyond particle mobility classifiers: Classifying particles by mass or relaxation time

Chairs: **George Biskos** (CYPRUS), **Mihalis Lazaridis** (GREECE)
Speaker: **Jason Olfert |** University of Alberta, Canada

10:00-10:30 **TRIANTI HALL**

Awards Ceremony 3
GAeF PhD Award, Early Career Poster Award & Art and Science Award

Panel: **George Biskos** (CYPRUS), **Jack Lin** (FINLAND), **Claudia Mohr** (SWEDEN)

10:30-11:30

Coffee Break

10:45-12:40 **MULTIPURPOSE HALL**

SS-5-A: Oxidative potential of aerosols particles and health risks I

Chairs: **Athanasios Nenes** (SWITZERLAND & GREECE), **Suzanne Paulson** (USA)

10:45-11:10 **SS-5-A-KT | KEYNOTE TALK:** Oxidative potential of aerosol particles and health impacts
ATHANASIOS NENES | LAPI/EPFL, Switzerland & ICE-HT/FORTH, Greece

11:10-11:25 **SS-5-01 |** Atmospheric and endogenous H2O2 influence on ROS concentration and OH production in the human body
ELENI DOVROU[1], Steven Lelieveld[1], Ashmi Mishra[1], Ulrich Pöschl[1], Thomas Berkemeier[1] | [1]Max Planck Institute For Chemistry, Mainz, Germany

11:25-11:40 **SS-5-02 |** PM2.5 induced cytotoxicity: Role of ROS and Glutathione Depletion
SUDHEER SALANA[1], Haoran Yu[1], Joseph V Puthussery[1], Yixiang Wang[1], Vishal Verma[1] | [1]University Of Illinois At Urbana-champaign, Champaign, United States of America

11:40-11:55 **SS-5-03 |** Correlation of acellular oxidative potential of PM10 and in vitro biological effects in three sites in south Italy
Maria Rachele Guascito[1,2], Maria Giulia Lionetto[2], Franco Mazzotta[3], Laura Mazzotta[3], Marianna Conte[4], Maria Elena Giordano[2], Roberto Caricato[2], Anna Rita De Bartolomeo[2], Maria Pia Romano[2], Adelaide Dinoi[1], Daniela Cesari[1], Eva Merico[1], DANIELE CONTINI[1] | [1]Institute Of Atmospheric Sciences And Climate, ISAC-CNR, Lecce, Italy; [2]Dipartimento DISTEBA, University of Salento, Lecce, Italy; [3]Studio Effemme Chimica Applicata s.r.l., Squinzano (LE), Italy; [4]Agenzia Nazionale per le Nuove Tecnologie, l'Energia e lo Sviluppo Economico Sostenibile (ENEA), Roma, Italy

11:55-12:10 **SS-5-04 |** Resolving organic aerosol components and chemical features contributing to PM2.5 toxicity
Fobang Liu[1], Taekyu Joo[2], Jenna Ditto[3], Gabriela Saavedra[2], Masayuki Takeuchi[5], Alexandra Boris[4], Yuhan Yang[2], Ann Dillner[4], Rodney Weber[2], Drew Gentner[3], Nga Lee Ng[1,2,5] | [1]School of Chemical and Biomolecular Engineering, Georgia Institute of Technology, Atlanta, United States; [2]School of Earth and Atmospheric Science, Georgia Institute of Technology, Atlanta, United States; [3]Department of Chemical and Environmental Engineering, Yale University, New Haven, United States; [4]Air Quality Research Center, University of California Davis, Davis, United States; [5]School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta, United States

12:10-12:25 **SS-5-05 |** Online Quantification of Particle-bound Reactive Oxygen Species and the Oxidative Potential of Car Exhaust and Wood Burning Aerosol

ALEXANDRE BARTH[1], Battist Utinger[1], Steven J. Campbell[1,2], Andreas Paul[3], Thomas Hohaus[3], Hendryk Czech[4,5], Olli Sippula[6,7], Yinon Rudich[8], Ralf Zimmermann[4,5], Astrid Kiendler-Scharr[3], consortium aeroHEALTH[9], Markus Kalberer[1] | [1]University of Basel, Basel, Switzerland; [2]University of California at Los Angeles, Los Angeles, United States of America; [3]Forschungszentrum Jülich GmbH, Jülich, Germany; [4]Helmholtz Zentrum München, München, Germany; [5]University of Rostock, Rostock, Germany; [6]University of Eastern Finland, Kuopio, Finland; [7]University of Eastern Finland, Joensuu, Finland; [8]Weizmann Institute of Science, Rehovot, Israel; [9]German-Israeli Helmholtz International Laboratory aeroHEALTH, , Germany

12:25-12:40 **SS-5-06 |** Associations between Aerosol Oxidative Potential Measured with the Dithiothreitol and Hydroxyl Radical Assays and Metals, Emissions Sources and Socioeconomic Status in the Greater Los Angeles Area

Jiaqi Shen[1], Sina Taghvaee[1], Farzan Oroumiyeh[1], Chris La[1], Michael Jerrett[1], Scott Weichenthal[3], Martin Schafer[2], Beate Ritz[1], Irish Del Rosario[1], Jonathan Liu[1], Yifang Zhu[1], SUZANNE PAULSON[1] | [1]University of California Los Angeles, Los Angeles, United States; [2]University of Wisconsin, Madison, USA; [3]McGill University, Montreal, Canada

BACKUP TALK

SS5-eP1-006 | Influence of atmospheric process on oxidative potential of submicron particles in Taiwan urban area

Li-Ti Chou[1], Kai-Hsien Chi[3], Kai-Ting Huang[3], Wei-Hsu Kao[3], TA-CHIH HSIAO[1,2] | [1]National Taiwan University, Taipei, Taiwan; [2]Academia Sinica, Taipei, Taiwan; [3]National Yang Ming Chiao Tung University, Taipei, Taiwan

11:00-12:30 TRIANTI HALL

ATAS-23: Physico-chemical properties of ambient aerosols

Chairs: **Merete Bilde** (DENMARK), **Luca Ferrero** (ITALY)

11:00-11:15 **ATAS-23-01 |** Life needs water - Hygroscopicity studies of airborne cells of the ice nucleation active bacterium P. syringae

LÆRKE SLOTH NIELSEN[1], Bernadette Rosati[2], Andreas Massling[3], Kai Finster[1], Tina S. Temkiv[1], Merete Bilde[2] | [1]Aarhus University, Department of Biology, Aarhus, Denmark; [2]Aarhus University, Department of Chemistry, Aarhus, Denmark; [3]Aarhus University, Department of Environmental Science, Aarhus, Denmark

11:15-11:30 **ATAS-23-02 |** Airborne microplastics: the emerging role of sea-spray emission

LUCA FERRERO[1], Lorenzo Scibetta[1], Piotr Markuszewski[2], Mikolaj Mazurkiewicz[2], Violetta Drozdowska[2], Przemek Makuch[2], Patricja Jutrzenka-Trzebiatowska[3], Adriana Zaleska-Medynska[3], Sergio Andò[1], Francesco Saliu[1], E. Douglas Nilsson[4], Amedeo Manuel Cefalì[1], Niccolò Losi[1], Ezio Bolzacchini[1] | [1]University Of Milano-bicocca, Milano, Italy; [2]Institute of Oceanology - Polish Academy of Science, Sopot, Poland; [3]University of Gdansk, Gdansk, Poland; [4]Stockholm University, Stockholm, Sweden

11:30-11:45 **ATAS-23-03 |** Vertical Characterization of Particulate matter within the urban boundary layer (632m vs surface) in Seoul Korea during winter and spring: About planetary boundary layer effect

SU JIN KWON[1], Yanfang Chen[2], Yoo Jin Park[3], Seul Gi Park[4], Yoon Mi Shin[5], Chang Ho Park[5], Seung Sung Yoo[5], Hwajin Kim[1] | [1]Department of Environmental Health Sciences, Graduate School of Public Health, Seoul National University, Seoul, Korea, Republic of; [2]Institute of Health and Environment, Seoul National University, Seoul, Korea, Republic of; [3]Department of Environmental Science and Engineering, Ewha Womans University, Seoul, Korea, Republic of; [4]Department of Environmental Health Science, Konkuk University, , Korea, Republic of; [5]Seoul Research Institute of Public Health and Environment, Gwacheon, Korea, Republic of

11:45-12:00 **ATAS-23-04 |** Variation in Organic Aerosol Volatility Derived from Combined Thermal Desorption and Chemical Composition Measurements in Different Environments across the Globe

CLAUDIA MOHR[1], Wei Huang[2], Cheng Wu[1], Emelie Graham[1], Yvette Gramlich[1], Sophie Haslett[1], Joel Thornton[3], Felipe Lopez-Hilfiker[4], Ben Lee[3], Harald Saathoff[5], Xiaoli Shen[6], Ramakrishna Ramisetty[7], Linyu Gao[5], Junwei Song[5], Liine Heikkinen[1], Sara Blichner[1], Ilona Riipinen[1] | [1]Stockholm University, Stockholm, Sweden; [2]University of Helsinki, Helsinki, Finland; [3]University of Washington , Seattle, United States; [4]Tofwerk AG, Thun, Switzerland; [5]Karlsruhe Institute of Technology, Eggenstein-Leopoldshafen, Germany; [6]Purdue University, West Lafayette, United States; [7]TSI Instruments India Private Limited, Bangalore, India

12:00-12:15 **ATAS-23-05 |** Saharan dust detection at high altitude and remote sites by the analysis of in-situ optical and physical aerosol properties

MARTINE COLLAUD COEN[1], Benjamin T. Brem[1], Martin Gysel-Beer[1], Martin Steinbacher[1], Davide Putero[1] | [1]Meteoswiss, Payerne, Switzerland

12:15-12:30 **ATAS-23-06 |** Seasonal aerosol acidity and liquid water content: impact on aerosol concentration and nitrogen deposition fluxes in Toronto

ANDREA ARANGIO[1], Pourya Shahpoury[2], Ewa Dabek-Zlotorzynska[3], Athanasios Nenes[1] | [1]Ecole Polytechnique Federale De Lausanne, Lausanne, Switzerland; [2]Air Quality Research Division, Environment and Climate Change Canada, Toronto, Canada; [3]Air Quality Research Division, Environment and Climate Change Canada, Ottawa, Canada

11:00-12:30 MC3 HALL

ATAS-24: Connecting aerosol physico-chemical and optical properties I

Chairs: **Elisabeth (Betsy) Andrews** (USA), **Grisa Mocnik** (SLOVENIA)

11:00-11:15 **ATAS-24-01 |** The associations between aerosol optical properties and chemical composition in urban and forested areas

PAULO ARTAXO[1], Djacinto Santos[1], Bruno B Meller[1], Milena Ponczek[1], Marco A. M. Franco[1], Luiz A. T. Machado[1], Luciana V. Rizzo[2] | [1]University Of Sao Paulo, Sao Paulo, Brazil; [2]Federal University of São Paulo, Diadema Campus, Diadema, Brazil

11:15-11:30 **ATAS-24-02 |** Optical properties of fresh and coated combustion aerosol investigated during MORE-RAINI campaign

LUKA DRINOVEC[1,2,3], Uroš Jagodič[3], Lisa Kattner[4], Robin Lewis Modini[4], David Bell[4], Jun Zhang[4], Martin Gysel-Beer[4], Feng Jiang[5], Harald Saathoff[5], Claudia Linke[5], Jannis Röhrbein[7], Bradley Visser[7], Matthias Oscity[7], Ernest Weingartner[7], Luca Ferrero[8], Olivier Favez[9], Griša Močnik[1,2,3] | [1]Center for Atmospheric Research, University of Nova Gorica, Ajdovščina, Slovenia; [2]Haze Instruments d.o.o., Ljubljana, Slovenia; [3]Department of Condensed Matter Physics, Jozef Stefan Institute, Ljubljana, Slovenia, Slovenia; [4]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, Villigen, Switzerland; [5]Department Atmospheric Aerosol Research, Karlsruhe Institute of Technology, Karlsruhe, Germany; [6]schnaiTEC GmbH, Bruchsal, Germany; [7]Institute for Sensors and Electronics, University of Applied Sciences Northwestern Switzerland, Windisch, Switzerland; [8]GEMMA center, University of Milano-Bicocca, Milano, Italy; [9]French National Instiute for Industrial Environment and Risks (INERIS), Verneuil-en-Halatte, France

11:30-11:45 **ATAS-24-03 |** Role of morphology and mixing state in modelling optical properties of ambient aerosols

BASEERAT ROMSHOO[1], Ajit Ahlawat[1], Anil Kumar Mandariya[2], Mira Pöhlker[1], Alfred Wiedensohler[1], Gazala Habib[2], Thomas Müller[1] | [1]Leibniz Institute For Tropospheric Studies(tropos), Leipzig, Germany; [2]Indian Institute of Technology, New Delhi, India

11:45-12:00 **ATAS-24-04 |** Aerosol optical properties predicted from ground based observations compared to Raman lidar retrievals

XINYA LIU[1], Ulrike Dusek[1], Diego Alves Gouveia[2], Arnoud Apituley[2], Bas Henzing[3] | [1]University Of Groningen, Groningen, Netherlands; [2]Royal Netherlands Meteorological Institute (KNMI), De Bilt, Netherlands; [3]Department of Climate, Air and Sustainability, TNO, Utrecht, Netherlands

12:00-12:15 **ATAS-24-05 |** Identification of key aerosol types in Athens: Optical properties and the curvature effect in spectral scattering and absorption coefficients

DIMITRIS KASKAOUTIS[1], Giorgos Grivas, Iasonas Stavroulas, Eleni Liakakou, Aikaterini Bougiatioti, Umesh Dumka, Konstantinos Dimitriou, Evangelos Gerasopoulos, Nikolaos Mihalopoulos | [1]National Observatory Of Athens, Athens, Greece

12:15-12:30 **ATAS-24-06 |** Optical properties of the mixed aerosol layers measured during the A-LIFE field experiment in the Eastern Mediterranean

MARILENA TERI[1,2], Josef Gasteiger[1], Katherina Heimerl[1], Maximilian Dollner[1,2], Manuel Schöberl[1,2], Petra Seibert[1,3], Anne Tipka[1,6], Nina Maherndl[1], Thomas Müller[4], Sudharaj Aryasree[5], Konrad Kandler[5], Bernadett Weinzierl[1] | [1]University of Vienna, Faculty of Physics, Aerosol Physics and Environmental Physics Group, Vienna, Austria; [2]University of Vienna, Vienna Doctoral School in Physics, Vienna, Austria; [3]University of Natural Resources and Life Sciences, Institute of Meteorology and Climatology, Vienna, Austria; [4]Leibniz-Institute for Tropospheric Research, Tropospheric Aerosols, Leipzig, Germany; [5]Institute of Applied Geosciences, Technical University Darmstadt, Darmstadt, Germany; [6]Comprehensive Nuclear Test-Ban Treaty Organization, Vienna, Austria

BACKUP TALK **ATAS-P5-050 |** Advanced receptor modelling for optical source apportionment: An alternative approach to overcome current modelling limitations

ROBERTA VECCHI[1], Alice C. Forello[1], Vera Bernardoni[1], Sara Valentini[1], Gianluigi Valli[1], Federica Crova[1], Giulia Calzolai[2], Franco Lucarelli, Silvia Nava[2], Dario Massabò[3], Paolo Prati[3] | [1]University of Milan and INFN-Milan, Milan, Italy; [2]University of Florence and INFN-Florence, Florence, Italy; [3]University of Genoa and INFN-Genoa, Genoa, Italy

11:00-12:30 **MC2 HALL**

AH-7: Bioaerosol: monitoring, emissions and exposure

Chairs: **Julia Burkart** (AUSTRIA), **Chiara Suanno** (ITALY)

11:00-11:15 **AH-7-01 |** The AutoPollen-ADOPT International Intercomparison Campaign: An overview and key results

GIAN LIEBERHERR[1], Jose Manzano[2], Fiona Tummon[1], Bernard Clot[1], Jeroen Buters[2] | [1]1Federal Office of Meteorology and Climatology MeteoSwiss, Payerne, Switzerland; [2]Zentrum für Allergie und Umwelt (ZAUM),Technische Universität und Helmholtz Zentrum , München, Germany

11:15-11:30 **AH-7-02 |** Possible markers for pollen-derived nanoparticles carrying pollen allergens

CHIARA SUANNO[1], Elisa Tonoli[2], Enzo Fornari[3], Maria Pia Savoca[2], Iris Aloisi[1], Luigi Parrotta[1,4], Claudia Faleri[5], Giampiero Cai[5], Elisabetta Verderio-Edwards[1,2], Stefano Del Duca[1,4] | [1]University Of Bologna, Bologna, Italy; [2]Nottingham Trent University, Nottingham, United Kingdom; [3]Healty Stuff, Castle Donington, United Kingdom; [4]Interdepartmental Centre for Agri-Food Industrial Research, Bologna, Italy; [5]University of Siena, Siena, Italy

11:30-11:45 **AH-7-03 |** Bio-analytical assessment of primary vs. aged biomass burning emissions

ABD EL RAHMAN EL MAIS[1,2], Barbara D'Anna[2], Brice Temime-Roussel[2], Celine Degrendele[2,3], Grazia Maria Lanzafame[2], Henri Wortham[2], Serge Collet[1], Nicolas Karoski[1], Adrien Dermigny[1], Mehdi Dionigi[1], Ahmad El Masri[1], Serguei Stavrovski[1], Faustina Fuvel[1], Claudine Chatellier[1], Emmanuelle Maillot-Maréchal[1], Selim Aït-Aïssa[1], Alexandre Albinet[1] | [1]Ineris, Parc Technologique Alata, Verneuil-en-Halatte, 60550, France; [2]Aix Marseille Univ, CNRS, LCE, Marseille, France; [3]RECETOX, Masaryk University, Brno, 62500, Czech Republic

11:45-12:00 **AH-7-04 |** Application of a Novel Passive Sampler to Investigate The Effect of Sampling Duration on Culturable Bioaerosol Recovery
GEDIMINAS MAINELIS[1], Sydonia Manibusan[1] | [1]Rutgers University, New Brunswick, United States of America

12:00-12:15 **AH-7-05 |** Bioaerosols exposure of pathologist and autopsy labs workers
GENEVIEVE MARCHAND[1], Loic Wingert[1] | [1]IRSST, Montréal, Canada

12:15-12:30 **AH-7-06 |** Bioaerosol release from aquatic environments resulted from different operations
Elena Kruglyakova[1], Ekaterina Mirskaya[1], IGOR AGRANOVSKI[1] | [1]Griffith University, Nathan, Australia

BACKUP TALK **AH-P2-016 |** Extraction of subpollen particles (SPPs) from allergenic pollen and their cloud forming potential
JULIA BURKART[1], Jürgen Gratzl[1,2], Teresa Seifried[2], Paul Bieber[2], Hinrich Grothe[2] | [1]University Of Vienna, Wien, Austria; [2]TU Wien, Wien, Austria

11:00-12:30 CONFERENCE I HALL

ATAS-25: Mechanistic understanding of SOA formation and transformation processes

Chairs: **Mikael Ehn** (FINLAND), **Yanjun Zhang** (FRANCE)

11:00-11:15 **ATAS-25-01 |** Abundant formation of ester dimers in the gas-phase from monoterpene ozonolysis
MIKAEL EHN[1], Otso Peräkylä[1], Torsten Berndt[2], Lauri Franzon[3], Melissa Meder[1], Jonathan Varelas[4], Franz Geiger[4], Regan Thomson[4], Matti Rissanen[5], Theo Kurtén[3] | [1]INAR, University Of Helsinki, Helsinki, Finland; [2]Leibniz Institute for Tropospheric Research , Leipzig, Germany; [3]Department of Chemistry, University of Helsinki, Helsinki, Finland; [4]Northwestern University, Evanston, USA; [5]Tampere University, Tampere, Finland

11:15-11:30 **ATAS-25-02 |** Particle-phase processes during the isothermal evaporation of a-pinene SOA particles formed under low- and high-NOx conditions
ZIJUN LI[1], Angela Buchholz[1], Luis Barreira[1,2], Arrtu Ylisirniö[1], Liqing Hao[1], Iida Pullinen[1], Siegfried Schobesberger[1], Annele Virtanen[1] | [1]University of Eastern Finland, Kuopio, Finland; [2]Finnish Meteorological Institute, Helsinki, Finland

11:30-11:45 **ATAS-25-03 |** Acidity-dependent atmospheric organosulfate structures and spectra: exploration of protonation state effects via Raman, infrared, and density functional theory
ALISON FANKHAUSER[1], Ziying Lei[1], Kimberly R. Daley[1], Yao Xiao[1], Zhenfa Zhang[2], Avram Gold[2], Bruce S. Ault[3], Jason D. Surratt[2], Andrew P. Ault[1] | [1]University Of Michigan, Ann Arbor, United States of America; [2]University of North Carolina, Chapel Hill, United States of America; [3]University of Cincinnati, Cincinnati, United States of America

11:45-12:00 **ATAS-25-04 |** Monoterpene ozonolysis: a possible new radical measured by chemical ionization (CI)-orbitrap
YANJUN ZHANG[1], Dongyu Wang[2], Siddharth Iyer[3], Felix Sari Dori[1], Sebastien Perrier[1], Christian George[1], Joel Thornton[4], Neil Donahue[5], Mikael Ehn[3], Matti Rissanen[6], Theo Kurten[7], Imad El-Haddad[2], Matthieu Riva[1] | [1]Ircelyon, Institut De Recherches Sur La Catalyse Et L'environnement, Lyon, France; [2]Laboratory of Atmospheric Chemistry, Paul Scherrer Institute, 5232, Villigen, Switzerland,; [3]Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Helsinki, 00140, Finland; [4]Department of Atmospheric Sciences, University of Washington, Seattle, Washington 98195, United States, , ; [5]Center for Atmospheric Particle Studies, Carnegie Mellon University, Pittsburgh, Pennsylvania 15213, United States; [6]Aerosol Physics Laboratory, Tampere University, Tampere, 33720, Finland; [7]Department of Chemistry, University of Helsinki, Helsinki, 00014, Finland

12:00-12:15 **ATAS-25-05 |** Kinetic Investigation of Secondary Organic Aerosol Formation of Products from Isoprene Hydroxy Hydroperoxides (ISOPOOH) Oxidation
PETER METTKE[1], Anke Mutzel[1,2], Martin Brüggemann[1,3], Hartmut Herrmann[1] | [1]Leibniz Institute for Tropospheric Research e.V., Leipzig, Germany; [2]Eurofins Institute Appelt Leipzig GmbH, Leipzig, Germany; [3]Bayer AG, CropScience Division, R&D, Environmental Safety, Monheim, Germany

12:15-12:30 **ATAS-25-06 |** A catalytic role of formaldehyde in particulate matter formation?
ELENI DOVROU[1,2], Kelvin Bates[2], Jonathan Moch[3], Loretta Mickley[2], Daniel Jacob[2,3], Frank Keutsch[2,3,4] | [1]Department of Multiphase Chemistry, Max Planck Institute For Chemistry, Mainz, Germany; [2]John A. Paulson School of Engineering and Applied Sciences, Harvard University, Cambridge, USA; [3]Department of Earth and Planetary Sciences, Harvard University, Cambridge, USA; [4]Department Chemistry and Chemical Biology, Harvard University, Cambridge, USA

BACKUP TALK

ATAS-P4-030 | Semi-explicit Monoterpene-SOA chemical mechanisms for regional-scale modeling
ZHIZHAO WANG[1,2], Florian Couvidat[2], Karine Sartelet[1] | [1]CEREA, École des Ponts ParisTech, EDF R&D, France; [2]INERIS, Institut National de l'Environnement Industriel et des Risques, France

12:30-13:30

Lunch Break 5

12:30-13:30 CONFERENCE I HALL

HAAR meeting

13:30-15:00 TRIANTI HALL

ATAS-26: Physico-chemical properties of laboratory aerosols

Chairs: **Timothy Raymond** (USA), **Jenny Rissler** (SWEDEN)

13:30-13:45 **ATAS-26-01 |** The dependence of activity coefficients of condensed phase organic aerosol components on the character of the organic matrix
TOM HILDITCH[1], J. P. Reid[1] | [1]University Of Bristol, Bristol, United Kingdom

13:45-14:00 **ATAS-26-02 |** Unexpected phase behavior of complex particles containing ammonium sulfate, glycolic acid and oligomer: Study at the single particle scale
MIKEL SADER[1], Hichem Bouzidi[2], Najiha Azarkan[1], Myriam Moreau[1], Gabriel Billon[1], Andreas Zuend[3], Vladimir Ždímal[2], Yeny Tobon[1] | [1]LASIRE - University of Lille, Villeneuve D'ascq, France; [2]ICPF, Prague, Czech Republic; [3]McGill University, Montreal, Quebec, Canada

14:00-14:15 **ATAS-26-03 |** Impact of the photo-degradation on the hygroscopicity of internally mixed sodium chloride/malonic acid single droplets
Mikel Sader[1], Manuel Prieto-Grosso[1,2], Madelaine Suhr[1], Myriam Moreau[1], Gabriel Billon[1], Jovanny Gomez-Castaño[1,2], YENY TOBON[1] | [1]LASIRE - University of Lille, Villeneuve d'Ascq, France; [2]Universidad Pedagógica y Tecnológica de Colombia, Tunja, Colombia

14:15-14:30 **ATAS-26-04 |** Thermodynamics of mixtures of the four most important atmospheric aerosol ions
JENNY RISSLER[2], Calle Preger, Axel Ericsson, Nönne Prisle, Birgitta Svenningsson | [1]Lund University, Lund, Sweden; [2]RISE Research Institutes of Sweden, Lund, Sweden

14:30-14:45 **ATAS-26-05 |** Effects of Mixing State on Water-Uptake Properties of Binary Mixtures
TIMOTHY RAYMOND[1], Dabrina Dutcher[1], Patricia Razafindrambinina[2], Kotiba Malek[2], Kristin DiMonte[3], Joseph Dawson[3], Mariam Freedman[3], Akua Asa-Awuku[2] | [1]Bucknell University, Lewisburg, United States of America; [2]University of Maryland, College Park, United States of America; [3]The Pennsylvania State University, University Park, United States of America

14:45-15:00 **ATAS-26-06 |** Diffusivity and viscosity of organic aerosol components from detailed molecular dynamics simulations
KATERINA (AIKATERINI) S. KARADIMA[1,2], Vlasis G. Mavrantzas[1,2,3], Spyros N. Pandis[1,2] | [1]Department of Chemical Engineering, University Of Patras, Patras, Greece; [2]Institute of Chemical Engineering Sciences, FORTH/ICE-HT, Patras, Greece; [3]Department of Mechanical and Process Engineering, ETH Zürich, Zurich, Switzerland

BACKUP TALK

ATAS-P5-049 | Saturation vapor pressure characterization of low-volatility organic compounds using isothermal evaporation
ZIJUN LI[1], Miika Vainikka[1], Taina Yli-Juuti[1], Noora Hyttinen[2], Siegfried Schobesberger[1], Annele Virtanen[1] | [1]University of Eastern Finland, Kuopio, Finland; [2]University of Jyväskylä, Jyväskylä, Finland

13:30-15:00 MULTIPURPOSE HALL

SS-5-B: Oxidative potential of aerosols particles and health risks II

Chairs: **Daniele Contini** (ITALY), **Pourya Shahpoury** (CANADA)

13:30-13:45 **SS-5-B-01 |** Assessing exposition to PM10 sources using five a-cellular oxidative potential measurements in a French urban site
PAMELA DOMINUTTI[1], Lucille Borlaza[1], Jean-Jacques Sauvain[2], Vy Dinh Ngoc Thuy[1], Stephan Houdier[1], M. Sean Tobin[1], Guillaume Suarez[2], Jean-Luc Jaffrezo[1], Gaëlle Uzu[1] | [1]Université Grenoble Alpes, Grenoble, France; [2]Centre universitaire de Médecine Générale et Santé Publique, Lausanne, Switzerland

13:45-14:00 **SS-5-B-02 |** Oxidative Potential of Fresh and Aged Biomass Burning Aerosols
MARIA GEORGOPOULOU[1,2], Georgia Starida[1,2], Christos Kaltsonoudis[1], Kalliopi Florou[1], Despina Paraskevopoulou[1,3], Spyros Pandis[1,2], Athanasios Nenes[1,4] | [1]Institute of Chemical Engineering Sciences (FORTH/ICE-HT), 26504 Patras, Greece, Patras, Greece; [2]Department of Chemical Engineering, University of Patras, 26504 Patras, Greece, Patras, Greece; [3]Institute for Environmental Research and Sustainable Development, National Observatory of Athens, 15236 Athens, Greece, Athens, Greece; [4]Laboratory of Atmospheric Processes and their Impacts, École Polytechnique Fédérale de Lausanne, 1015 Lausanne, Switzerland, Lausanne, Switzerland

14:00-14:15 **SS-5-B-03 |** Aerosol absorption by in-situ filter photometer and by ground-based sunphotometer in a polluted urban atmosphere within the Po valley, Italy
ALESSANDRO BIGI[1], Elisabeth Andrews[2], Martine Collaud Coen[3], Dario Massabò[4], Lorenzo Guerrieri[5], Sergio Teggi[1], Grazia Ghermandi[1] | [1]University of Modena and Reggio Emilia, Modena, Italy; [2]NOAA/Earth Systems Research Laboratory, Boulder, USA; [3]Federal Office of Meteorology and Climatology, MeteoSwiss, Payerne, Switzerland; [4]Università di Genova, Genova, Italy; [5] Istituto Nazionale di Geofisica e Vulcanologia (INGV), Rome, Italy

14:15-14:30 **SS-5-B-04 |** Do within-city variations in PM2.5 oxidative potential modify the effect of PM2.5 on cardiovascular mortality in two Canadian cities?
SUSANNAH RIPLEY[1], Scott Weichenthal[1] | [1]McGill University, Montreal, Canada

14:30-14:45 **SS-5-B-05 |** Physicochemical characterization and oxidative potential of winter-time aerosol under intensive biomass burning phenomena

GEORGIA KASTRINAKI[1], Despina Paraskevopoulou[2], Penelope Baltzopoulou[1], Eleni Papaioannou[1], Dimitrios Kaskaoutis[2], Aikaterini Bougiatioti[2], Nikolaos Hatzianastassiou[3], Nikolaos Mihalopoulos[2] | [1]Chemical Process and Energy Resources Institute, CERTH, 57001, Thessaloniki, Greece, [2]IESRD, National Observatory of Athens, I. Metaxa and Vas. Pavlou, P. Penteli, 15236, Athens, Greece, [3]Laboratory of Meteorology, Department of Physics, University of Ioannina, 45110 Ioannina, Greece

14:45-15:00 **SS-5-B-06 |** Impact of fog processing on the oxidative potential of atmospheric aerosols in the Po Valley, Italy, during FAIRARI 2021/22

SARAH STEIMER[1], Anilbai Patel[1,2], Marco Paglione[3], Almuth Neuberger[1,2], Frederik Mattsson[1,2], Yvette Gramlich[1,2], David Hadden[1,2], Sophie Haslett[1,2], Matteo Rinaldi[3], Claudia Mohr[1,2], Ilona Riipinen[1,2], Paul Zieger[1,2], Stefano Decesari[3] | [1]Department of Environmental Science, Stockholm University, Stockholm, Sweden; [2]Bolin Centre for Climate Research, Stockholm, Sweden; [3]Institute of Atmospheric Sciences and Climate, National Research Council, Bologna, Italy

BACKUP TALK

SS5-P1_007 | Characterization of the Oxidative Potential of fine aerosol in the Po Valley during RHAPS

MATTEO RINALDI [1], Lorenzo Massimi[2], Maria Agostina Frezzini[2], Francesco Manarini[1], Mara Russo[1], Paglione Marco[1], Alice Forello[3], Franco Lucarelli[3,4], Dario Massabò[5], Sara Valentini[6], Federica Crova[6], Gianluigi Valli[6], Roberta Vecchi[6], Maurizio Gualtieri[7,8], Francesca Costabile[9], Stefano Decesari[1], Silvia Canepari[2] | [1]Institute of Atmospheric Sciences and Climate, National Research Council, Bologna, 40129, Italy, [2]Department of Environmental Biology, Sapienza University of Rome, Roma, 00185, Italy, [3]Department of Physics and Astrophysics, University of Firenze, Sesto Fiorentino, 50019, Italy, [4]INFN-Firenze, Sesto Fiorentino, 50019, Italy, [5]Department of Physics, University of Genova and INFN-Genova, Genova, 16146, Italy, [6]Department of Physics, University of Milano and INFN-Milano, Milano, 20133, Italy, [7]SSPT-MET-INAT, ENEA, Bologna, 40129, Italy, [8]Department of Earth and Environmental Sciences, University of Milano Bicocca, Milano, 20126, Italy, [9]Institute of Atmospheric Sciences and Climate, National Research Council, Roma, 00133, Italy

13:30-15:00 **MC3 HALL**

ATAS-27: Connecting aerosol physico-chemical and optical properties II

Chairs: **Martin Gysel-Beer** (SWITZERLAND), **Yinon Rudich** (ISRAEL)

13:30-13:45 **ATAS-27-01 |** Invertible neural networks can efficiently solve the forward and inverse problems of in-situ aerosol polarimetry

MARTIN GYSEL-BEER[1], Romana Boiger[1], Rob L. Modini[1], Alireza Moallemi[1], David Degen[1], Andreas Adelmann[1] | [1]Paul Scherrer Institute, Villigen PSI, Switzerland

13:45-14:00 **ATAS-27-02 |** Comparison of MLR and GWR model in estimating PM10 surface concentration over an urban tropical city, at the Eastern Himalayas foothills

BHARATI PAUL[1], Apurba Kumar Das | [1]Tezpur University, Napaam, India

14:00-14:15 **ATAS-27-03 |** Analysis of aerosol particle inputs and accumulation from residential wood burning – results from a field study in an isolated rural site

ANDREA CUESTA-MOSQUERA[1], Kristina Glojek[2], Thomas Müller[1], Griša Močnik[3,4], Luka Drinovec[3,4], Asta Gregorič[4,5], Martin Rigler[5], Matej Ogrin[2], Kay Weinhold[1], Maik Merkel[1], Dominik van Pinxteren[1], Hartmut Herrmann[1], Alfred Wiedensohler[1] | [1]Leibniz Institute for Tropospheric Research, TROPOS, Leipzig, Germany; [2]Department of Geography, Faculty of Arts, University of Ljubljana, Ljubljana, Slovenia; [3]Department of Condensed Matter Physics, Jožef Stefan Institute, Ljubljana, Slovenia; [4]Center for Atmospheric Research, University of Nova Gorica, Ajdovščina, Slovenia; [5]Aerosol d.o.o., Ljubljana, Slovenia

14:15-14:30 **ATAS-27-04 |** High light absorption capacity of brown carbon aerosols in the Netherlands
PENG YAO[1], Ru-Jin Huang[2], Rupert Holzinger[3], Elise Broekema[1], Haiyan Ni[1], Xinya Liu[1], Lu Yang[2], Dušan Materić[3], Dipayan Paul[1], Harro A.J. Meijer[1], Ulrike Dusek[1] | [1]Centre for Isotope Research (CIO), Energy and Sustainability Research Institute Groningen (ESRIG), University of Groningen, Groningen, 9747AG, the Netherlands, Groningen, Netherlands; [2]State Key Laboratory of Loess and Quaternary Geology, Center for Excellence in Quaternary Science and Global Change, Key Laboratory of Aerosol Chemistry & Physics, Institute of Earth Environment, Chinese Academy of Sciences, Xi'an 710061, China, Xi'an, China; [3]Institute for Marine and Atmospheric Research Utrecht, Utrecht University, the Netherlands, Utrecht, Netherlands

14:30-14:45 **ATAS-27-05 |** Optical properties and potential sources of water- and methanol-soluble organic aerosols in the capital of Taiwan
YU-CHIEH TING[1], Yi-Ru Ko[1], Chuan-Hsiu Huang[1], Yu-Hsiang Cheng[2], Chuo-Hsi Huang[1] | [1]National Taiwan University, Taipei, Taiwan; [2]Ming Chi University of Technology, New Taipei , Taiwan

14:45-15:00 **ATAS-27-06 |** Formation of Secondary Brown Carbon in Biomass Burning Aerosol Proxies through NO3 Radical Reactions
YINON RUDICH[1], Chunlin Li, Quanfu He, Alexander Laskin, Anusha Hettiyadura, Ralf Zimmermann | [1]Weizmann Institute, Rehovot, Israel

13:30-15:00 CONFERENCE I HALL

AMT-10: Measurement techniques for carbonaceous particle

Chair: **Leonidas Ntziachristos** (GREECE), **Stergios Vratolis** (GREECE)

13:30-13:45 **AMT-10-01 |** Mass spectrometry (MS) in thermal-optical carbon analysis (TOCA)
HENDRYK CZECH[1,2], Marco Schmidt[2], Dumitru Duca[2], Patrick Martens[2], Sven Ehlert[3], Ralf Zimmermann[1,2] | [1]Helmholtz Munich, Munich, Germany; [2]University of Rostock, Rostock, Germany; [3]Photonion GmbH, Schwerin, Germany

13:45-14:00 **AMT-10-02 |** A Low – Cost Optoacoustic Sensor for Black Carbon
NIKOLAOS KOUSIAS[1], Antonios Stylogiannis[2], Anastasios Kontses[1], Leonidas Ntziachristos[1], Vasilis Ntziachristos[2] | [1]Aristotle University Of Thessaloniki, Thessaloniki, Greece; [2]Technical University of Munich, Munich, Germany

14:15-14:30 **AMT-10-03 |** Evaluating the performance of various single-particle soot photometer mixing state measurement methods on sample wildfire black carbon mixing states
ARASH NASERI[1], Joel Corbin[2], Allan Bertram[3], Jason Olfert[1] | [1]University Of Alberta, Edmonton, Canada; [2]National Research Council Canada, Ottawa, Canada; [3]University of British Columbia, Vancouver, Canada

14:30-14:45 **AMT-10-04 |** Non-intrusive and time-resolved in-situ diagnostics for quantifying the nanostructure and size distribution of gas-borne carbon nanoparticles
FABIAN PETER HAGEN[1,2], Rainer Suntz[2], Henning Bockhorn[1], Dimosthenis Trimis[1] | [1]Karlsruhe Institute of Technology (KIT), Engler-Bunte-Institute, Karlsruhe, Germany; [2]Karlsruhe Institute of Technology (KIT), Institute for Chemical Technology and Polymer Chemistry, Karlsruhe, Germany

14:45-15:00 **AMT-10-05 |** Experimental evaluation of an electrostatic soot sensor for on-board vehicle applications and investigation of its response via a physical model
DIMITRIOS KONTSES[1], Odysseas Bakatselos[1], Nikolaos Karakioulachis[1], Zissis Samaras[1] | [1]Aristotle University of Thessaloniki, Greece

14:00-14:15 **AMT-10-06 |** Non-linear models for black carbon exposure modelling using air pollution datasets
MAR VIANA[1], J. Rovira[2], J.A. Paredes-Ahumada[3], J.M. Barceló-Ordinas[3], J. García-Vidal[3], C. Reche[1], Y. Sola[2], P.L. Fung[4], T. Petäjä[4], T. Hussein[4,5] | [1]Idaea-csic, Barcelona, Spain; [2]Barcelona University, Barcelona, Spain; [3]Universitat Politècnica de Catalunya, Barcelona, Spain; [4]Univ. Helsinki, Inst. Atmospheric and Earth System Research (INAR/Physics), Helsinki, Finland; [5]Univ. Jordan, Amman, Jordan

BACKUP TALK **AMT-P3-025 |** New method for deriving morphology characteristics of aerosol particles from realtime digital holography measurement
ERNY NIEDERBERGER[1], Reto Abt[1], Philipp Burch[1], Elias Graf[1], Yanick Zeder[1] | [1]Swisens AG, Horw, Switzerland

13:30-15:10 MC2 HALL

AH-8: Human exposure in urban environments
Chairs: **Evangelia Diapouli** (GREECE), **Maria Viana** (SPAIN)

13:30-13:55 **AH-8-KT | KEYNOTE TALK:** WHO Air Quality Guidelines 2021: What change will they bring?
LIDIA MORAWSKA | Queensland University of Technology, Brisbane. Australia

13:55-14:10 **AH-8-01 |** Mobile Measurements and Personal Sampling during the Subway Commuting to Analyze Metals, identify Hot-spots and determine the Spatiotemporal Variability of PM
JAN BENDL[1], Ajit Mudan[1], Carsten Neukirchen[1], Thomas Adam[1] | [1]University of the Bundeswehr Munich, Faculty for Mechanical Engineering, Institute of Chemical and Environmental Engineering, 85577, Neubiberg, Germany

14:10-14:25 **AH-8-02 |** Factors affecting personal exposure to aerosol particles in transport microenvironments
VÂNIA MARTINS[1], Carolina Correia[1], Inês Cunha-Lopes[1], Tiago Faria[1], Evangelia Diapouli[2], Manousos Ioannis Manousakas[2], Konstantinos Eleftheriadis[2], Susana Marta Almeida[1] | [1]Instituto Superior Técnico, Lisbon, Portugal; [2]National Centre for Scientific Research "Demokritos", Athens, Greece

14:25-14:40 **AH-8-03 |** New approaches to individual exposure to PM in cities
ISABELLE COLL[1], Adriana Coman[1], Taos Benoussaïd[1], Inès Makni[1], Arthur Elessa Etuman[1] | [1]LISA - UPEC, Créteil Cedex, France

14:40-14:55 **AH-8-04 |** Intra-urban aerosol predictions under future Representative Concentration Pathways: modeling experiments for Athens
Dimitris Karagiannis[1], ELENI ATHANASOPOULOU, Nasia Kakouri, Giorgos Grivas, Evangelos Gerasopoulos | [1]National Observatory Of Athens, Athens, Greece

14:55-15:10 **AH-8-05 |** Indoor/Outdoor Air Quality Measurements near a Highway in Somerville, MA, USA
LEAH WILLIAMS[1], Thomas Jagielski[2], Bryce Mann[2], Duncan Mazza[2], Flynn Michael-Legg[2], Skye Ozga[2], Michael Remley[2], Francesca Majluf[2], Philip Croteau[1], John Jayne[1], Alessandra Ferzoco[2], Scott Hersey[2] | [1]Aerodyne Research, Inc., Billerica, USA; [2]Olin College of Engineering, Needham, USA

BACKUP TALK

AH-P1-016 | Winter-time snapshots of fine particle characteristics near airport, in a residential area, and in city centre – measurements in Helsinki, Finland

N. Kuittinen[1], TEEMU LEPISTÖ[1], L. M. F. Barreira[2], A. Helin[2], V. Silvonen[1], L. Markkula[1], S. Demyanenko[1], J. V. Niemi[3], H. E. Manninen[3], S. Saarikoski[2], H. Timonen[2], T. Rönkkö[1] | [1]Aerosol Physics Laboratory, Physics Unit, Faculty of Engineering and Natural Sciences, Tampere University, Tampere, , Finland; [2]Atmospheric Composition Research, Finnish Meteorological Institute, Helsinki, , Finland; [3]Helsinki Region Environmental Services Authority HSY, Helsinki, , Finland

15:10-15:40 **TRIANTI HALL**

Closing Ceremony

11th International Aerosol Conference

Poster Catalogue

ATHENS Greece IAC 2022

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

POSTER AREA 1

AH P1

Health effects of aerosols

AH P1 001 Aerosols produced from nanoparticle metal-containing 'colloidal' consumer spray products
MATTHEW WRIGHT, Adam Laycock, Rachel Smith | UK Health Security Agency

AH P1 002 Determination of the deposited particle surface dose during air-liquid interface exposure of human lung cells to biomass burning emissions
RACHEL GEMAYEL, Benedicte Trouiller, Emanuel Peyret, Abedelrahman El Mais, Serge Collet, Nicolas Karoski, Adrien Dermingy, Arnaud Papin, Farid Ait-Ben-Ahmad, Celine Degrendele, Brice Temime-Roussel, Barbara D'Anna, Henri Wortham, Alexandre Albinet | INERIS

AH P1 003 Experimental Investigation of Metallic Aerosol Generated from Plasma and Flame Cutting for Nuclear Power Plant Decommissioning
MIN-HO LEE, Samuel Park, Hyunjin Boo, Jonghyeon Kim, Byunggi Park, Dae-Won Cho, Sungyeol Choi, Bongsoo Lee, Wooyoung Jung, Sanghun Shin, Heekwon Ku, Dooyong Lee | FNC Technology Co. Ltd

AH P1 004 Evolution of antioxidative and oxidative potential of biomass burning HULIS by atmospheric nighttime aging
CHUNLIN LI, Yinon Rudich | Weizmann Institute of Science

AH P1 005 Personal exposure to particles from dental nanocomposite grinding
Lucie Ondráčková, J. Ondráček, J. Schwarz, P. Bradna, A. Roubíčková, D. Pelclová, V. ŽDÍMAL | ICPF-CAS Institute of Chemical Process Fundamentals of CAS

AH P1 006 High Molecular Weight Nitrogen-Containing Organic Salts in urban aerosols endocytosis by osteoclasts during bone resorption
DONG-SIK CHAE, Jae Sun Lee, Seahyoung Lee | Catholic Kwandong University College of Medicine

AH P1 008 Alteration of phospholipases C and cholesterol transporters response is induced by subchronic inhalation of lead oxide nanoparticles
PAVEL MIKUŠKA, Jana Dumková, Daniela Kristeková, Lucie Vrlíková, Adriana Jedličková, Lukáš Alexa, Zbyněk Večeřa, Kamil Křůmal, Pavel Coufalík, Markéta Laštovičková, Aleš Hampl, Marcela Buchtová | Institute of Analytical Chemistry of the Czech Academy of Sciences

AH P1 010 Synthetic Nano- and Microfibers
JAN MARIJNISSEN, L. Gradon, A. Moskal, R.M. Wagterveld | Un. of Nairobi

AH P1 011 Nebulizing engineered receptor-binding domain (RBD-62) proteins in pulmonary drug delivery against COVID-19
YINON RUDICH, Chunlin Li, Ira Marton, Gideon Schreiber | Weizmann Institute

AH P1 012 A monoclonal anti-SARS-COV-2 IgG administered by intravenous or nebulization route reduces viral load in upper and lower respiratory tract
BENOÎT DELACHE, Cécile Herate, Paule Hermet, Andres Männik, Quentin Sconosciuti, Francis Relouzat, Asma Berriche, Nathalie Deureuddre-Bosquet, Roger Le Grand, Mart Ustav Jr | CEA/IDMIT

AH P1 013 Deposition of nebulized liposomal carriers within an upper airways replica
ONDREJ MIŠÍK, Jana Szabová, Filip Mravec, František Lízal | Brno University of Technology

AH P1 014 Engineering bioactive inorganic metal oxide nanoparticles
INGE HERRMANN | EMPA and ETH Zurich

AH P1 016 Winter-time snapshots of fine particle characteristics near airport, in a residential area, and in city centre – measurements in Helsinki, Finland
N. Kuittinen, TEEMU LEPISTÖ, L. M. F. Barreira, A. Helin, V. Silvonen, L. Markkula, S. Demyanenko, J. V. Niemi, H. E. Manninen, S. Saarikoski, H. Timonen, T. Rönkkö | Tampere University

AH P1 017 Wildland fire and windblown Africa dust aerosols' deposition dose rates in human respiratory system
MARIA MYLONAKI, Alexandros Papayannis, Kostas Eleftheriadis, Maria Gini, Eleftheria Chalvatzaki, Marika Pilou, Stavros Solomos, Michalis Lazaridis, Athanasios Nenes | National Technical University of Athens

AH P1 018 Nebulized aerosol deposition in infant and child airways
MILOSLAV BELKA, Ondrej Misik, Frantisek Lizal, Jakub Elcner, Miroslav Jicha | Brno University of Technology

AH P1 019 Aerosol particles in a mechanically ventilated office in Helsinki, Finland – studying the infiltration of outdoor air and particle characteristics
VILLE SILVONEN, Laura Salo, Tuomas Raunima, Ilpo Kulmala, Juha Vinha, Panu Karjalainen, Topi Rönkkö | Tampere University

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

AH P1 020 Assessment of high-power electronic nicotine delivery system as an alternative aerosol device for terbutaline delivery
MARIAM CHAOUI, Sophie Perinel-Ragey, Nathalie Prévôt, Jérémie Pourchez | Ecole Nationale Supérieure Des Mines de Saint-etienne

AH P1 021 The flow of fibres in an airway bifurcation under steady flow conditions
FRANTISEK LIZAL, Matous Cabalka, Milan Maly, Miloslav Belka, Ondrej Misik, Jakub Elcner, Jan Jedelsky, Miroslav Jicha | Brno University of Technology

AH P1 023 Characterisation of size-selective aerosol particle deposition in porcine pneumoperitoneum
DANIEL GÖHLER, Kathrin Oelschlägel, Lars Hillemann, Urs Giger-Pabst | Topas GmbH

POSTER AREA 1

AH P2

Bioaerosols

AH P2 001 Reliable detection of avian influenza viruses using a self-calibrating electrochemical aptasensing platform
KYEONG SEOK KIM, Inae Lee, Joonseok Lee | Hanyang University

AH P2 002 Effect of wind direction in airborne Alternaria spore concentration
ALBERTO RODRÍGUEZ-FERNÁNDEZ, Carlos Blanco-Alegre, Ana María Vega-Maray, Rosa María Valencia-Barrera, Delia Fernández-González | University of León

AH P2 003 Automatic real-time spores monitoring: Alternaria spp., a case study
SOPHIE ERB, B. Crouzy, C. Sallin, M.J. Graber, G. Lieberherr, F. Tummon, B. Clot, A. Berne | Federal Office of Meteorology and Climatology Meteoswiss

AH P2 004 Analysis of optical, microphysical and radiative properties of extreme pollen events observed by remote sensors in South-eastern Spain
MARIA J. GRANADOS-MUÑOZ, Juan Luis Guerrero-Rascado, Juan Antonio Bravo-Aranda, Paloma Cariñanos, Jesus Abril-Gago, Diego Bermejo-Pantaleon, Alberto Cazorla, Roberto Roman, Ramiro González, Lucas Alados-Arboledas | University of Granada

AH P2 005 Experimental investigation of airborne bacteria viability by an atmospheric simulation chamber
Silvia Giulia Danelli, Marco Brunoldi, Denise Casazza, DARIO MASSABÒ, Franco Parodi, Tommaso Isolabella, Virginia Vernocchi, Paolo Prati | University of Genoa & INFN

AH P2 008 Comparison of analytical approaches for identifying airborne microorganisms in workplaces
Giulia Simonetti, DONATELLA POMATA, Patrizia Di Filippo, Carmela Riccardi, Francesca Buiarelli | INAIL

AH P2 009 Molecular Changes in Bacteria after Aerosolization Leading to Antimicrobial Resistance
Brooke Smith, Maria D. King | Texas A&M University

AH P2 010 High resolution characterization of microplastics in zebrafish tissues-In vivo toxicity study
GEORGIA KASTRINAKI, Martha Kaloyianni, Dimitra Bobori, Dimitra Xanthopoulou, Glykeria Malioufa, Ioannis Sampsonidis, Stavros Kalogiannis, Konstantinos Feidantsis, Anastasia Dimitriadi, George Koumoundouros, Dimitra Lambropoulou, George Z. Kyzas, Dimitrios N. Bikiaris | CERTH

AH P2 011 Assessment of the in-vitro biological responses induced by SOA formed from the oxidation of PAHs and furans by OH or NO3 radicals
ABD EL RAHMAN EL MAIS, Barbara D'Anna, Selim Aït-Aïssa, Alexandre Albinet | INERIS & Aix Marseille Univ, CNRS, LCE

AH P2 014 Polypropylene (PP) microplastic exposure cause lung inflammation by the p38-mediated NF-kB pathway due to mitochondrial damages
Jong-Hwan Woo, Hyeon Jin Seo, KYUHONG LEE | Inhalation Toxicology Center for Airborne Risk Factor

AH P2 015 Quantification of diesel exhaust particulates and artificial particulate matter using UV-Vis spectrophotometry
Dong Im Kim, Mi-Kyung Song, Ji Eun Yuk, KYUHONG LEE | Inhalation Toxicology Center for Airborne Risk Factor

AH P2 016 Extraction of subpollen particles (SPPs) from allergenic pollen and their cloud forming potential
JULIA BURKART, Jürgen Gratzl, Teresa Seifried, Paul Bieber, Hinrich Grothe | University of Vienna

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

AH P2 017 Performance Evaluation of Two-stage Electrostatic Precipitator with Antiviral Surface Treatment on Collection Plates against Bioaerosols
DAE HOON PARK, Gunhee Lee, Sungjae Park, Jungho Hwang, Minjeong Lee, Sang Bok Kim, Hak-Joon Kim, Bangwoo Han | Korea Institute of Machinery & Materials (KIMM)

AH P2 018 Development and calibration of the mini-E-RATEs (Emission Rates Analysis Through Experiments): an experimental bench for bio-aerosols emission rate measurements
LYES AIT ALI YAHIA, Han Jeaux, Evelyne Géhin | Université Paris est Créteil

AH P2 019 Two-year systematic investigation reveals alterations induced on chemical and bacteriome profile of PM2.5 by African dust incursions to the Mediterranean atmosphere
MINAS IAKOVIDES, George Tsiamis, Thrasyvoulos Tziaras, Panagiota Stathopoulou, Sofia Nikolaki, Giannis Iakovides, Euripides G. Stephanou | The Cyprus Institute

AH P2 020 Pollen surface contamination by atmospheric particulate matter
MARIE CHOËL, Karine Deboudt, Najiha Azarkan, Antoine Roose, Nicolas Visez | Univ. Lille, CNRS, UMR 8516 – LASIRE

AH P2 021 An Investigation of the Airborne Stability of Group A Streptococcus
HENRY OSWIN, Evie Blake, Allen Haddrell, Alice Halliday, Anu Goenka, Jonathan Reid | University of Bristol

AH P2 022 An Assessment of the Toxicity of Smouldering Peat PM on a Human Alveolar Epithelial Cell Line
GEORGIA GAMBLE, Amy Wilson, Wuquan Cui, Guillermo Rein, Teresa Tetley, Marc Stettler | Imperial College London

AH P2 023 Cytotoxicity and oxidative potential of fresh and aged pyridine SOA
ALEXANDRA LAI, Chunlin Li, Yinon Rudich, Michal Pardo | Weizmann Institute of Science

POSTER AREA 1

AMT P1

Instrumentation for aerosol characterization

AMT P1 002 Calibration vs. Validation: ensuring aerosol instrument performance, with a focus on continuous ultrafine particle monitoring
Andrea J. Tiwari, Sebastian Schmitt, Ahmed Jaffer, Juergen Spielvogel, Thomas Krinke, Oliver Bischof, TORSTEN TRITSCHER | TSI GmbH

AMT P1 004 Polarized Imaging Nephelometer for aerosol microphysical properties retrieval and for supporting upcoming satellite missions
ELENA BAZO, Daniel Perez-Ramirez, Gloria Titos, Vanderlei Martins, David Fuertes, Julio Miguel Lopez-Calero, Antonio Valenzuela, Lucas Alados-Arboledas, Francisco Jose Olmo | University of Granada

AMT P1 005 Image analysis for time-resolved analysis of micro particle resuspension kinetics on a ventilated duct surface
CORENTIN CAZES, Lionel Fiabane, Félicie Theron, Laurence Le Coq, Dominique Heitz | IMT Atlantique

AMT P1 006 Number Concentration Change of Vehicle Condensable Particulate Matter
SOODONG LEE, Giwon Kang, Kyungil Cho, Seung-Bok Lee, Sang-Hee Woo, Seokhwan Lee, Changhyuk Kim | Pusan National University

AMT P1 007 Development and Evaluation of a High-Volume Cascade Impactor for Collection of Fine and Ultrafine Particulate Matter on Gelatin Filter
Mohammad Aldekheel, Vahid Jalali Farahani, Abdulmalik Altuwayjiri, CONSTANTINOS SIOUTAS | Univ of Southern California

AMT P1 009 Charge distribution measurements of various salt aerosols
PETER KNAPP, Marc Stettler | Imperial College London

AMT P1 011 Real-time processing and clustering of single-particle mass spectrometer data
Paul Haubenwallner, Ellen-Iva Rosewig, Robert Irsig, JOHANNES PASSIG, Ralf Zimmermann | Helmholtz Centre Munich and University of Rostock

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

AMT P1 012 Broadening the usable reagent range for atmospheric CI-MS measurements with an ESI source addition for the MION
PAXTON JUUTI, Juha Kangasluoma, Jyri Mikkilä, HJ Jost, Aleksei Scherbinin | Karsa Ltd.

AMT P1 013 Multi-scheme chemical ionization inlet (MION) with fast reagent and polarity switching for atmospheric pressure chemical ionization mass spectrometry (CIMS) applications
Jyri Mikkilä, Joona Mikkilä, Jussi Kontro, Fariba Partovi, Evgenia Iakovleva, Juha Kangasluoma, Matti Rissanen, PAXTON JUUTI, Hans-Juerg Jost | Karsa Ltd.

AMT P1 014 Development and performance of a higher resolution Aerosol Chemical Speciation Monitor
BENJAMIN NAULT, Manjula Canagaratna, Philip Croteau, Edward Fortner, Harald Starck, Donna Sueper, Leah Williams, Douglas Worsnop, John Jayne | Aerodyne Research Inc

AMT P1 016 A New Size-Fractionated Liquid Collector of Viable Bioaerosols: the BioCascade Impactor
ARANTZAZU EIGUREN FERNANDEZ, Stavros Amanatidis, Nathan Kreisberg | Aerosol Dynamics Inc

AMT P1 017 Continuous and real-time monitoring of airborne bacterial microcolony based on the enriched aerosol-to-hydrosol transfer and the on-chip microscopy techniques
Hyun Sik Ko, Ki Joon Heo, Sang Bin Jeong, Jae Hak Shin, JAEHEE JUNG | Sejong University

AMT P1 018 Rapid-E+: all-in-one instrument for real-time identification of airborne microbes
MINGHUI ZHANG, Sirine Fkaier, Sabri Fernana, Svetlana Kiseleva, Denis Kiselev | Plair SA

KRITIKA SHUKLA, Shankar Gopala Aggarwal | CSIR-National Physical Laboratory

AMT P1 019 Evidence of Biases in Beta Gauge Measurements due to Chemical Composition of Particulate Matter
Kritika Shukla (INDIA)

AMT P1 020 A Diethylene Glycol Booster for nanoparticle characterization using water-based condensation particle counters
GREGORY LEWIS, Luis Javier Perez-Lorenzo, Michel Attoui, Juan Fernandez de la Mora, Arantza Eiguren Fernandez | Aerosol Dynamics Inc.

AMT P1 021 Real-time vs. offline characterization of secondary organic aerosols using ultrahigh resolution mass spectrometry with different ionization techniques
FRANZISKA BACHMEIER, Markus Thoma, Mario Simon, Alexander Lucas Vogel | Goethe University Frankfurt

AMT P1 022 Assessing MAAP (Multi Angle Absorption Photometer) uncertainties through off-line optical measurements by a benchtop polar photometer (PP_UniMI)
Sara Valentini, Vera Bernardoni, Alice Corina Forello, Dario Massabò, Paolo Prati, Gianluigi Valli, ROBERTA VECCHI | University of Milan

AMT P1 023 A new on-line SPE LC-HRMS method for the analysis of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) in PM2.5 and its application for screening atmospheric particulates from urban locations in Ireland
IVAN KOURTCHEV, Stig Hellebust, Eimear Heffernan, John Wenger, Sam Towers, E. Diapouli, K. Eleftheriadis | Coventry University

AMT P1 024 Nanoplastics from sea spray: chemical characterization
FREJA HASAGER, Eva Rosendal Kjærgaard, Sarah Suda Petters, Sofie Falk Vinther, Merete Bilde, Marianne Glasius | Aarhus University

AMT P1 026 Cost-effective strategies for environmental management in industrial harbours. Air quality sensors as tools for environmental management in industrial harbours
MARIA LÓPEZ OLIVÉ, Ana López-Lilao, Fernando Ramos, Clara Giner, Vicenta Sanfelix, Mar Viana, Eliseo Monfort | IDAEA-CSIC

AMT P1 027 Cyprus Atmospheric Observatory (CAO) network
TUIJA JOKINEN, Efstratios Bourtsoukidis, Aliki Christodoulou, Danielle El Hajj, Rafail Konatzii, Nikoleta Lekaki, Franco Marenco, Alkistis Papetta, Moreno Parolin, Emeric Piaulenne, Michael Pikridas, Pierre-Yves Quehe, Constantina Rousogenous, Roland Sarda Esteve, Jean Sciare, Mihalis Vrekoussis | The Cyprus Institute

AMT P1 028 Development and deployment of a mobile filter-based sampler for ice-nucleating particle research on board an unmanned aerial vehicle in the Arctic
ALEXANDER BÖHMLÄNDER, Larissa Lacher, David Brus, Konstantinos-Matthaios Doulgeris, Zoé Brasseur, Matthew Boyer, Joel Kuula, Ottmar Möhler | Karlsruhe Institute of Technology

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

AMT P1 029 Characteristic Collision Energy investigation using EESI-Orbitrap
JENS TOP, Dongyu Wang, David Bell, Imad El Haddad | PSI

AMT P1 030 Performance evaluation of low-cost air quality sensors in two Indian cities
Sachchida Nand Tripathi (INDIA)

AMT P1 031 Performance evaluation of Partector 2 for use onboard unmanned aerial platforms
Constantina Varnava, SPYROS BEZANTAKOS, Iassonas Stavroulas, Lukas Zuber, Martin Fierz, George Biskos | The Cyprus Institute

AMT P1 032 Comparative analysis of aerosol sizing instruments, APS, AAC and MiniMOUDI
VARUN AIYAR GANESAN, Joseph Tay, Ahmad Fairuz Omar, Wei Teck Tan, Subash Krishnan | Philip Morris International Research Laboratories

AMT P1 033 A look into an Atmospheric Pressure interface Time-Of-Flight Mass Spectrometer (APi-TOF MS): A study of cluster fragmentation and an optimization of transmission measurements
DINA ALFAOURI, Monica Passananti, Juha Kangasluoma, Lauri Ahonen, Tommaso Zanca, Jakub Kubečka, Nanna Myllys, Hanna Vehkemäki | University of Helsinki

AMT P1 034 Comparison of different particle mass measurement methods at the German Air Quality Network
MICHAEL ELSASSER, Julian Rüdiger, Maik Schütze, Rita Junek, Frank Meinhardt, Cedric Couret, Bryan Hellack | German Environment Agency (UBA)

AMT P1 035 Performance evaluation of Monitor for AeRosols and Gases (MARGA) according to change of inlet system
SOO RAN WON, Gyeongjin Kim, Seung Mee Oh, Ji Yi Lee | Ewha Womans University

AMT P1 036 Evaluation of two different ionization techniques using non-target analysis on UHPLC-Orbitrap-HRMS measurements of ambient PM2.5
MARIO SIMON, M. Thoma, J. Siebecker, J. Ma, A.L. Vogel | Institute for Atmospheric and Environmental Sciences

AMT P1 037 Laboratory study of the performance of low-cost aerosol sensors with regards to reference instruments when exposed to aerosolized NOAA powders
BENJAMIN SUTTER, Alexis Boivin, Sébastien Bau, Xavier Simon, Olivier Witschger, Christof Asbach, Anna Maria Todea, Alexandre Bescond, François Gaie-Levrel, Sanders Ruiter, Eelco Kuijpers, Wouter Fransman | Institut National de Recherche et de Sécurité

AMT P1 038 Aerosol Charging with a Piezoelectric Plasma Generator
HELMUT KRASA, Mario Anton Schriefl, Martin Kupper, Alexander Melischnig, Alexander Bergmann | Graz University of Technology

AMT P1 039 Participatory sensing of the indoor air quality and outdoor air pollution
PAK LUN FUNG, Andrew Rebeiro-Hargrave, Samu Varjonen, Andres Huertas, Krista Luoma, Sasu Tarkoma, Tuukka Petäjä, Tareq Hussein | Institute for Atmospheric and Earth Science Research/physics, University of Helsinki

AMT P1 041 Re-examination of the CAPS PMssa MonitorScattering Channel Truncation
Brian Heffernan, Steven Jones, Fred Bacon, Timothy Onasch, ANDREW FREEDMAN | Aerodyne Research, Inc.

POSTER AREA 1 & POSTER AREA 2

AMT P2

Measurement techniques

AMT P2 001 Investigation of potential Sahara dust transport event indicators by means of aerosol trace metal concentration ratios in the Eastern Mediterranean for the years 2012-2021
VASILIKI VASILATOU, Evangelia Diapouli, Maria Gini, Stefanos Papagiannis, Manousos Ioannis Manousakas, Konstantinos Eleftheriadis | N.C.S.R. Demokritos

AMT P2 003 Quantifying the impact of anthropogenic fluctuations and meteorological contributions on visibility using explainable machine learning
TZUCHI LIN, PeiTe Chiueh, TaChih Hsiao | National Taiwan University

AMT P2 004 Insight into air quality at central Europe station during volcano eruption event by ground-based and vertical profiling measurement combination
Adéla Holubová, JURAJ KOSTYK, Tomáš Ištok, Gabriela Vítková, Vladimír Ždímal | Czech Hydrometeorological Institute

AMT P2 005 Insights into the effects of storage conditions of PM2.5 filter samples: a quantitative and qualitative high-resolution UHPLC-MS study
JULIAN RESCH, Kate Wolfer, Alexandre Barth, Markus Kalberer | University of Basel

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

AMT P2 006 Differences of positive and negative electrospray ionization ultra-high resolution mass spectrometry for the investigation of extracts of combustion and secondary aerosols
ERIC SCHNEIDER, Hendryk Czech, Christopher P. Rüger, Ralf Zimmermann | University Rostock

AMT P2 007 PBL height retrievals at a coastal site using Lidar observations
IOANNA TSIKOUDI, Eleni Marinou, Anna Gialitaki, Maria Tsichla, Vassilis Amiridis, Panagiotis - Ioannis Raptis, Ville Vakkari, Mikka Komppula, Eleni Giannakaki, Maria Tombrou | Institute for Astronomy, Astrophysics, Space Applications and Remote Sensing, National Observatory of Athens

AMT P2 008 Measurement of PM10 and PM2.5 for Coal-fired Power Plants using a two-stage dilutor and an optical particle counter
BANGWOO HAN, Dongho Shin, Kee-Jung Hong, Gunhee Lee, Yong-Jin Kim | Korea Institute of Machinery & Materials, Principal Researcher

AMT P2 009 A portable combustion source emission measurement sampler: Design, evaluation, and field test
JYOTI KUMARI, Shahzar Khan, Mahak Sapra, Gazala Habib | Indian Institute of Technology Delhi

AMT P2 010 Study of the dependence of the aerosol light absorption coefficient on particle size for the Athens background aerosol
Athina-Kyriaki Zazani, CHRIS TZANIS, Konstantinos Granakis, Stergios Vratolis, Konstantinos Eleftheriadis | Climate and Climatic Change Group, Department of Physics, National and Kapodistrian University of Athens, Athens, Greece

AMT P2 011 Detectability of surfactant and saliva surrogate particles with optical aerosol spectrometers
CHRISTOF ASBACH, Ana Maria Todea | Institut Für Energie- Und Umwelttechnik E. V. (IUTA)

AMT P2 012 The new set-up of the beamline for atmospheric aerosol study at LABEC accelerator
FABIO GIARDI, Silvia Nava, Giulia Calzolai, Pietro Ottanelli, Giulia Pazzi, Franco Lucarelli, Massimo Chiari | INFN

AMT P2 014 Application of atmospheric pressure photoionization ultrahigh-resolution mass spectrometry with thermal desorption GC of biomass burning PM on filters
ERIC SCHNEIDER, Christopher P. Rüger, Hendry Czech, Olga B. Popovicheva, Ralf Zimmermann | University Rostock

AMT P2 015 Parameterization of secondary organic aerosol for the Volatility Basis Set from yield, thermodenuder and isothermal dilution measurements
PETRO URUCI, Anthoula Drosatou, Spyros N. Pandis | Institute of Chemical Engineering Sciences (FORTH/ICE-HT)

AMT P2 016 A First Laboratory Characterization of the Air Quality Package for airborne observations on passenger aircraft
PATRICK WEBER, Andreas Petzold, Oliver Bischof, Jannik Schmitt, Marcel Berg, Benedikt Fischer, Andrew Freedman, Timothy Onasch, RuShan Gao, Ulrich Bundke | IEK-8 FZJ Juelich

AMT P2 018 Evaluation of different sensors for diesel exhaust
JONAS SJÖBLOM, Tobias Storsjö, Peter Molnár, Håkan Tinnerberg | Chalmers University of Technology

AMT P2 019 The detailed chemical description of organic particulate matter emitted from ship engines and the effect of fuel chemistry and implementation of scrubber technology studied by comprehensive two-dimensional gas chromatography – high-resolution time-of-flight mass spectrometry
Uwe Käfer, BARBARA GIOCASTRO, Thomas Gröger, Jan Bendl, Mohammad Saraji-Bozorgzad, Seongho Jeong, Uwe Etzien, Bert Buchholz, Thorsten Streibel, Thomas Adam, Ralf Zimmermann | University of the Bundeswehr Munich

AMT P2 020 Field Deployments of the mini Aerosol Mass Spectrometer
BENJAMIN WERDEN, Michael Giordano, Douglas Goetz, Robuil Islam, Eduard Fortner, Philip Croteau, Erin Katz, Douglas Wornsop, John Jayne, Arnico Panday, Robert Yokelson, Elizabeth Stone, Peter DeCarlo | Aerodyne Research Inc

AMT P2 021 Performance and comparison measurements of a new ultrafine particle monitor for ambient air
Katharina Müller, Ann-Kathrin Goßmann, Frederik Weis, Maximilian Weiß, HENRIK HOF | Palas GmbH

AMT P2 022 Intercomparison of aerosol characteristics from multiple active and passive satellite-based measurements over diverse geographic regions
SOMAYA FALAH, David Broday | Technion

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AMT P2 023 Aircraft particle emissions determined by near-runway measurements using a low-cost Optical Particle Counter
Jeff Maes, Spyros Bezantakos, Rik Goudswaard, George Biskos, IRENE DEDOUSSI | TU Delft

AMT P2 024 Investigation of the mixing layer height derived from ceilometer measurements in Athens, Greece and implications for air quality
KALLIOPI PETRINOLI, Dimitris Kaskaoutis, Aikaterini Bougiatioti, Eleni Liakakou, Iasonas Stavroulas, Panagiotis Kalkavouras, Evangelos Gerasopoulos, Nikolaos Mixalopoulos | National Observatory of Athens

AMT P2 025 Hyper-fast gas chromatography photoionization mass spectrometry for advanced speciation of SOA precursors and breakdown products of atmospheric macromolecules
HENDRYK CZECH, Kevin Schnepel, Christian Gehm, Sven Ehlert, Ralf Zimmermann | University of Rostock

AMT P2 026 Preservation of bio-aerosol viability by a mutual interplay of calcium and ascorbic acid solution against generated reactive species under electrostatic aerosol-to-hydrosol sampling
Amin Piri, JIWOO JUNG, Adriana Rivera-Piza, Jungho Hwang | Yonsei University

AMT P2 027 Mass spectrometry-based aerosolomics: applying a new database and hierarchical cluster analysis on ambient organic aerosol
MARKUS THOMA, Franziska Bachmeier, Mario Simon, Alexander Lucas Vogel | Goethe-University Frankfurt

AMT P2 028 Characterization of a new oxidation flow reactor (DOFR)
ANSSI ARFFMAN, Elmeri Laakkonen, Markus Nikka, Esa Luntta | Dekati Ltd.

AMT P2 029 Total Reactive Nitrogen Flux Monitor Using CAPS Detection
Joseph Roscioli, Timothy Onasch, ANDREW FREEDMAN | Aerodyne Research, Inc.

AMT P2 030 Direct comparison of oleic acid and its ozonolysis products under drastically different oxidant concentrations using electrodynamic balance mass spectrometry
MARCEL MÜLLER, Ashmi Mishra, Thomas Berkemeier, Thomas Peter, Ulrich Krieger | ETH Zurich

AMT P2 031 Determining the influence of material structure and sizing on the comminution behaviour of carbon fibres
JONATHAN MAHL, Manuela Wexler, Manuela Hauser, Werner Baumann, Dieter Stapf | Karlsruhe Institute of Technology

AMT P2 032 Monitoring of indoor air pollution in museums for preventive conservation of artworks
Athena Konstantinovics, MARKUS KNOLL, Alexander Bergmann | Graz University of Technology

AMT P2 033 Measurement of Exhaust Particle Emissions on L-Category Vehicles within the LENS Project
Helmut Krasa, Sebastian Schurl, MARTIN KUPPER, Alexander Bergmann, Stephan Schmidt, Marcus Rieker, Enrico Farsetti, Antonio Pérez, Ake Sjödin, Michael Dittrich, Hervé Denayer, Philippe Degeilh, Thomas Böttcher, Michal Vojtisek, Karl-Maria Grugl, Frank Schwarz, Simone Di Piazza, Leonidas Ntziachristos | Graz University of Technology

AMT P2 034 A novel technique to optimise air quality monitoring network design
BEN MULLINS, Andrew King, Noel Cressie, Adrian Baddeley | Curtin University

AMT P2 035 Using the Aerodynamic Aerosol Classifier (AAC) as a low-pass separator
JULIE PONGETTI, Chris Nickolaus, Jonathan Symonds | Cambustion Ltd

AMT P2 036 A novel device for on-line determination of ammonia/ammonium in ambient air
LUKAS ALEXA, Pavel Mikuska | Institute of Analytical Chemistry of The Czech Academy of Sciences

AMT P2 037 Progress in vacuum photoionization mass spectrometry (PIMS): a versatile and robust technique for investigating complex gas mixtures in combustion and thermal processes
Sven Ehlert, Hendryk Czech, MOHAMMAD SARAJI-BOZORGZAD, Robert Irsig, Andreas Walte, Ralf Zimmermann | Photonion GmbH

AMT P2 038 Development of a 3D printed wind tunnel to investigate the effects of morphology and material on particle resuspension
EDWARD NEAL, Jonathan Reid, Richard Thomas, Maurice Walker, Jack Vincent, Simon Parker, Virginia Foot, Benjamin Higgins | University of Bristol

AMT P2 039 A multi-angle optical particle sizer to improve in situ PM2.5 characterisation
SETH ARTHUR-HASTIE, Katherine Manfred, Elizabeth Nutter | The University of York

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AMT P2 040 Systematic Selection of a CPC Working Fluid for Aerosols of Heterogeneous Composition
Gandolf Feigl, MARTIN KUPPER, Markus Bainschab, Martin Kraft, Mario Arar, Alexander Bergmann | Graz University of Technology

AMT P2 041 Performance of New Chemical Ion Reactor (Vocus AIM) for detecting organic and inorganic trace gases
MATTHIEU RIVA, Veronika Pospisilova, Carla Frege, Michael Kamrath, Felipe Lopez-Hilfiker | CNRS

AMT P2 043 Effects of soot maturity and coating on the single particle soot photometer (SP2) response: A laboratory study
LOVISA NILSSON, Erik Ahlberg, Axel Eriksson, Saga Bergqvist, Thi Kim Cuong Le, Per-Erik Bengtsson, Erik Swietlicki | Lund University

AMT P2 044 Improving automatic pollen recognition using deep neural networks on Rapid-E data
Alberto Chávez, Soledad Ruiz-Peñuela, Andrea Casans, Gloria Titos, Lucas Alados-Arboledas, Paloma Cariñanos, ALBERTO CAZORLA | University of Granada

AMT P2 045 Experimental measurements of the light extinction at a double-cavity ring down spectrometer by a single levitated particle
Antonio Valenzuela Gutierrez, Francisco José Olmo Reyes, ELENA BAZO, Lucas Alados-Arboledas | University of Granada

AMT P2 046 On-site and rapid detection of airborne viruses using an integrated bioaerosol sampling/monitoring platform
INAE LEE, Dongkyu Kang, Joonseok Lee | Hanyang University

AMT P2 047 The Investigated relative Variable Importance (RVI) and Strength of Interaction Effects (SIE) of fine-Particles during Pandemic Covid19 by using the Stochastic Boosted Regression Trees technique
NOOR Z YAHAYA, Juliana Jalaludin, Ezzah Shahreen Rahman, Ummu Salamah Hussin | Universiti Malaysia Terengganu

AMT P2 048 Emission factors for a fleet in South America's largest metropolitan area
PÉROLA VASCONCELLOS, Guilherme Pereira, Leonardo Kamigauti, Thiago Nogueira, Djacinto Santos, Margarita Evtyugina, Célia Alves, Maria de Fátima Andrade | Institute of Chemistry - University of São Paulo

AMT P2 049 Coal combustion in a domestic device: Spectrometric characterization of fly ashes
Paula Rodríguez-Rodríguez, Fernando Pereira, Roberto López, Javier Aller, Carlos Blanco-Alegre, Estela Vicente, Célia Alves, Ana Isabel Calvo, ROBERTO FRAILE | University of Leon

POSTER AREA 2

ATAS P1

Aerosol chemistry

ATAS P1 002 Aircraft observations of N2O5 and ClNO2 production in fire plumes from FIREX-AQ 2019
ZACHARY DECKER, Kenneth Aikin, Ilann Bourgeois, Pedro Campuzano Jost, Matthew Coggon, Joshua DiGangi, Glenn Diskin, Frank Flocke, Alessandro Franchin, Carley Fredrickson, Georgios Gkatzelis, Hongyu Guo Samuel Hall, Hannah Halliday, Katherine Hayden, Christopher Holmes, Jose Jimenez, Jakob Lindaas, Ann Middlebrook, Denise Montzka, Richard Moore, J. Andrew Neuman, John Nowak, Demetrios Pagonis, Brett Palm, Jeff Peischl, Delix Piel, Pamela Rickly, Michael Robinson, Andrew Rollins, Thomas Ryerson, Kanako Sekimoto, Lee Thornhill, Joel Thornton, Geoff Tyndall, Kirk Ullmann, Patrick Veres, Carsten Warneke, Rebecca Washenfelder, Andrew Weinheimer, Elizabeth Wiggins, Edward Winstead, Armin Wisthaler, Caroline Womack, Steven Brown | Paul Scherrer Institute

ATAS P1 003 Characterization of organic aerosols by online CI-Orbitrap MS: Laboratory studies of particle size dependent aerosol chemistry
MARCEL DOUVERNE, Maximillian Böckmann, Matthieu Riva, Sebastien Perrier, Christian George, Thorsten Hoffmann | Johannes Gutenberg Universität Mainz

ATAS P1 004 Mitigation of a-pinene secondary organic aerosol particles by titanium dioxide photocatalysis
LIQING HAO, Zijun Li, Iida Pullinen, Pasi Miettinen, Douglas Worsnop, Annele Virtanen | University of Eastern Finland

ATAS P1 005 Formation mechanism of atmospheric nitrate and sulfate in Seoul Metropolitan Area: Multiphase chemistry
NAJIN KIM, Hwajin Kim, Seogju Cho | Seoul National University

ATAS P1 006 Characteristics of major chemical components in PM2.5 to cause the summer haze in Northeast Asia
NAKYUNG KIM, Y.P. Kim, Mijung Song, C.H. Kim, K.S. Jang, K.Y. Lee, Zhijun Woo, H.J. Shin, J.S. Jung, Atsushi Matsuki, Amgalan Natsagdorj, Chang Hoon Jung, J.Y. Lee | Ewha Womans University

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ATAS P1 007 Understanding the "Water-on" Surface Catalysis in the context of Atmospheric Chemistry
XIANGRUI KONG, I. Gladich, D. Castarede, E.S. Thomson, A. Boucly, L. Artiglia, M. Ammann, J.B.C. Pettersson | University of Gothenburg

ATAS P1 008 Primary and Secondary emission from shipping in the Mediterranean Sea
GRAZIA MARIA LANZAFAME, Pauli Simonen, Brice Temime-Roussel, Lise Le Berre, Åsa M. Hallquist, Johan Mellqvist, Vladimir Conde, Nicolas Marchand, Alexandra Karppinen, Jorma Keskinen, Miikka Dal Maso, Matti Irjala, Auni Somero, Alexandre Armengaud, Leonidas Ntziachristos, Barbara D'Anna | Aix-Marseille University

ATAS P1 009 Influence of ferrous and ferric ions in the aqueous phase on SOA formation in flow reactor experiments
SABINE LÜCHTRATH, Sven Klemer, Andreas Held | Technische Universität Berlin

ATAS P1 010 Major chemical mechanism of sulfate formation in Seoul during international intensive field campaign of June, 2021
SEUNG MEE OH, Na Kyung Kim, Chang Hoon Jung, Ji Yi Lee | Ewha Womans University

ATAS P1 011 Iron-catalyzed photochemical degradation of organics in mineral dust aerosols
LIANG RAN, Ulrich K. Krieger, Jing Dou, Claudia Marcolli, Kristian Klumpp, Thomas Peter | Swiss Federal Institute of Technology Zürich

ATAS P1 012 Elucidating the importance of semi-volatile organic aerosol from monoterpene oxidation for nighttime organic mass loadings and particle growth events at a rural site, Germany
JUNWEI SONG, Feng Jiang, Harald Saathoff, Hengheng Zhang, Linyu Gao | Karlsruhe Institute of Technology

ATAS P1 016 Monitoring primary particle and gaseous emissions from aircraft turbine engine and the exhaust aging via oxidative processing
DOGUSHAN KILIC, Jesus Sanchez-Valdepenas, Saleh Alzahrani, Paola Moreno-Gonzalez, Maria Sanchez-Garcia, Devora Hormigo-Jurado, Marc Gilbert, Mario Simon, Michael Flynn, Alexander Vogel, James Allan, Hugh Coe, Mark Johnson, Paul I. Williams | University of Manchester

ATAS P1 017 Analysis of IVOCs using TD-GC-MS: Emissions, oxidation and SOA formation
ANGELIKI MATRALI, Christos Kaltsonoudis, Maria Georgopoulou, Andrea Simonati, Damianos Pavlidis, Spyros N. Pandis | FORTH/ICE-HT

ATAS P1 018 Frequent nocturnal particle growth in the polluted urban atmosphere of Delhi
SUNEETI MISHRA, Vijay Kanawade, Sachchida Tripathi | IIT Kanpur

ATAS P1 019 Measurements of the Hydroxyl Radical Burst using Direct to Liquid Collection
Sina Taghvaee, Jiaqi Shen, Catherine Banach, Steven Campbell, SUZANNE PAULSON | UCLA

ATAS P1 020 Understanding the sources and processing of atmospheric organic aerosols via non-target analysis
CHRISTINE BORCHERS, Isabella Hrabe de Angelis, Christopher Pöhlker, Thorsten Hoffmann | Johannes Gutenberg-University Mainz

ATAS P1 021 Identification of Secondary Organosiloxane Aerosol (SOSA) Using Aerosol Mass Spectrometry
YANFANG CHEN, Hyun Gu Kang, Jiwoo Jeong, Yoojin Park, Hwajin Kim | Seoul National University

ATAS P1 022 Molecular characterization of SOA particles in the Amazon rainforest
STEFANIE HILDMANN, Denis Leppla, Nora Zannoni, Leslie Kremper, Maria Praß, Bruna Holanda, Jonathan Willians, Florian Ditas, Christopher Pöhlker, Stefan Wolff, Maria Sà, M.C. Solci, Thorsten Hoffmann | Johannes Gutenberg-University

ATAS P1 023 Detection of nitrogen contained organic compounds in PM2.5 during high PM episodes of winter in the Northeast Asia
JU YOUNG KIM, Ki Ae Kim, Zihui Teng, Na Rae Choi, Zhijun Wu, Ji Yi Lee | Ewha Womans University

ATAS P1 024 Seasonal trends of nitrophenols and their precursors in ambient PM from Ljubljana
MONIKA OGRIZEK, Ana Kroflič, Martin Šala | National Institute of Chemistry

ATAS P1 025 Biomass burning knows no borders: the effect of airmass origin and local emissions on molecular SOA particle composition and volatility
IIDA PULLINEN, Angela Buchholz, Arttu Ylisirniö, Liqing Hao, Lejish Vettikkat , Sami Romakkaniemi, Ari Leskinen, Petri Tiitta, Siegfried Schobesberger, Annele Virtanen | University of Eastern Finland

ATAS P1 026 Fragmentation Patterns and Mechanisms of Environmentally Important Nitroaromatics Studied by Collision Induced Dissociation
MARTIN ŠALA, A. Kroflič, M. Ogrizek, S. Frka, M. Adamek, M. Hodošček, S. J. Blanksby | National Institute of Chemistry

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ATAS P1 027 Seasonal-diurnal dynamics and toxicity of PM-bound PAHs in northernmost European megacity
Marina Chichaeva, OLGA POPOVICHEVA | Moscow State University

ATAS P1 028 Investigation of regional contribution of SOA formation in PM2.5 collected during wintertime in Northeast Asia
Min Sung Kim, Gyu Young Lee, Mira Choi, Mijung Song, Changhyuk Kim, Kwangyul Lee, Zhijun Wu, Atsushi Matsuki, Amgalan Natsagdorj, Ji Yi Lee, KYOUNG-SOON JANG | Korea Basic Science Institute

ATAS P1 029 Shipborne measurements of atmospheric aerosols over northern Australia: an implication of black carbon sources
Changda Wu, Haydn Trounce, David Griffith, Erin Dunne, Scott Chambers, Alastair Williams, Luke Cravigan, Branka Miljevic , Chunlin Zhang, Hao Wang, Boguang Wang, ZORAN RISTOVSKI | QUT

ATAS P1 030 Gas to particle partitioning of a-Pinene photooxidation products
VERONICA GERETTI, Yare Baker, Sungah Kang, Tom Bannan, Aristeidis Voliotis, Sören Zorn, Epaminondas Tsiligiannis, Michael Priestley, Thomas Mentel, Gordon McFiggans, Mattias Hallquist | University of Gothenburg

ATAS P1 031 Non-linear effects caused by oligomerization and slow diffusion in the formation and evaporation of secondary organic aerosol
THOMAS BERKEMEIER, Hyun Gu Kang, Masayuki Takeuchi, Nga Lee Ng, Ulrich Pöschl | Max Planck Institute for Chemistry

ATAS P1 032 Sensitivity study of Volatility Basis Set (VBS) in ECHAM-HAM-SALSA
MUHAMMED IRFAN, Harri Kokkola, Taina Yli-Juuti, Annele Virtanen, Thomas Kühn | University of Eastern Finland

ATAS P1 035 Effects of organic water on inorganic aerosol thermodynamics
STYLIANOS KAKAVAS, Athanasios Nenes, Spyros Pandis | University of Patras/FORTH

ATAS P1 036 Chemistry in nanometer aerosol particles: flow tube experiments with pressure-dependent Diels-Alder reactions
DANIELA KLINK, Thorsten Hoffmann | Johannes Gutenberg-Universität, Mainz

ATAS P1 037 Pure biogenic particle formation and growth involving sesquiterpenes
LUBNA DADA, Dominik Stolzenburg, Mario Simon, Lukas Fischer, Hamish Gordon, Martin Heinritzi, Mingyi Wang, Neil Donahue, Markku Kulmala, Jasper Kirkby, Imad el-Haddad | Paul Scherrer Institute

ATAS P1 039 Development of chemical-kinetic model of small atmospheric ions
KALJU TAMME, Aare Luts, Jaan Salm, Urmas Hõrrak, Heikki Junninen | University of Tartu

ATAS P1 040 Applying the SOSAA Atmospheric Chemistry Model to Air Quality Analysis: A Case Study of a Severe Air Pollution Event in November 2018 in Beijing, China
BENJAMIN FOREBACK, Pauli Paasonen, Alexander Mahura, Carlton Xavier, Petri Clusius, Metin Baykura, Putian Zhou, Chenjuan Deng, Chao Yan, Markku Kulmala, Michael Boy | University of Helsinki

ATAS P1 041 Exploring viscous liquid crystal phases in a surfactant aerosol proxy: bulk mixtures and levitated particles
ADAM MILSOM, Adam Squires, Christian Pfrang | University of Birmingham

ATAS P1 042 Interpreting particle volatility and chemical composition information from thermal desorption FIGAERO-CIMS data measured in rural Estonia
ANGELA BUCHHOLZ, Luis Barreira, Arttu Ylisirniö, Iida Pullinen, Heikki Junninen, Siegfried Schobesberger | University of Eastern Finland

ATAS P1 043 Ozonolysis of a-pinene and Δ3-carene mixtures: Identification of cross-product dimers in secondary organic aerosol
DITTE THOMSEN, Lotte Dyrholm Thomsen, Þuríður Nótt Björgvinsdottir, Sofie Falk Vinther, Jane Tygesen Skønager, Emil Mark Iversen, Jonas Elm, Merete Bilde, Marianne Glasius | Aarhus University

ATAS P1 044 Aqueous oxidation of a-pinene secondary organic aerosol by hydroxyl radicals; kinetics, chemical transformations, and low-volatility products
BARTLOMIEJ WITKOWSKI, Mohammed al-Sharafi, Adrianna Szczepańska, Priyanka Jain, Bartłomiej Kiersztyn, Tomasz Gierczak | University of Warsaw, Faculty of Chemistry

ATAS P1 045 Secondary Organic Aerosol formation under pristine rain forest conditions
CAROLINA RAMIREZ-ROMERO, Joel F. de Brito, Sebastien Dusanter, Marina Jamar, Alexandre Tomas, Hichem Bouzidi, Ahmad Lahib, Layal Fayad, Marco A. Franco, Samara Carbone, Stefan Wolff, Achim Edtbauer, Jonathan Williams, Paulo Artaxo, Christopher Pöhlker, Stéphane Sauvage | IMT Nord Europe, Université de Lille, Centre for Energy and Environment

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ATAS P1 046 Quantification of extractive electrospray ionization to determine monomer / dimer distributions in secondary organic aerosol
DAVID BELL, Jun Zhang, Mihnea Surdu, Jens Top, Sophie Bogler, Jay Slowik, Andre Prevot, Imad El Haddad | Paul Scherrer Institute

ATAS P1 047 Effect of mass loading and acidity on the partitioning of nighttime oxidation organonitrates of isoprene
EPAMEINONDAS TSILIGIANNIS, Michael Priestley, Veronica Geretti, Christian Mark Salvador, Mattias Hallquist | University of Gothenburg

ATAS P1 049 Comparison of machine learning application and aerosol chemistry transport model to quantify the impact of the 2020 COVID-19 lockdown on urban air quality in Leipzig, Germany
ROLAND SCHRÖDNER, Dominik van Pinxteren, Ralf Wolke, Bernd Heinold, Swetlana Paul, Gerald Spindler, Maik Merkel, Jacob Schacht, Thomas Tuch, Alfred Wiedensohler, Hartmut Herrmann | Leibniz Institute for Tropospheric Research

POSTER AREA 2 & POSTER AREA 3

ATAS P2

Source apportionment and air quality

ATAS P2 001 Carbon nanoparticles in the atmospheric carbonaceous aerosol: implications for human health
SHAHADEV RABHA, Binoy Kumar Saikia | CSIR-North East Institute of Science and Technology, Jorhat

ATAS P2 002 Measurement of the chemical composition of airborne particles in London and south-east England (UK) by air quality networks: trends and comparison of analytical methods
ANDREW BROWN, Elizabeth McGhee, Katie Williams, Richard Brown, David Green, Anja Tremper, Max Priestman | National Physical Laboratory

ATAS P2 003 Carbonaceous aerosol in Polar areas: First results and improvements of the sampling strategies
FABIO GIARDI, Laura Caiazzo, Giulia Calzolai, Silvia Becagli, Mirko Severi, Alessandra Amore, Massimo Chiari, Silvia Nava, Giulia Pazzi, Franco Lucarelli, Paolo Cristofanelli, Aki Virkkula, Andrea Gambaro, Elena Barbaro, Rita Traversi | INFN

ATAS P2 004 Online measurements of nitro-aromatic compounds at a rural area in central Europe: formation mechanisms, source apportionment, and optical properties
FENG JIANG, Hengheng Zhang, Junwei Song, Linyu Gao, Harald Saathoff | Institute of Meteorology and Climate Research Atmospheric Aerosol Research Karlsruhe Institute of Technology

ATAS P2 005 Long-term variability of carbonaceous aerosols in the Eastern Mediterranean
KYRIAKI PAPOUTSIDAKI, Maria Tsagkaraki, Georgios Kouvarakis, Nikolaos Kalivitis, Maria Kanakidou, Nikolaos Mihalopoulos | Environmental Chemical Processes Laboratory

ATAS P2 006 Seasonal variation of secondary organic carbon in different atmospheric environments of continental Central Europe
IMRE SALMA, Péter Varga, Anikó Vasanits, Attila Machon | Eötvös Loránd University

ATAS P2 007 Trend of elemental and organic carbon (EC/OC) concentrations at the National Atmospheric Observatory Košetice (Czech Republic) in 2009-2020
MILAN VÁŇA, Jitka Přívozníková Dísková, Eva Chalupníčková | ACTRIS-CZ Manager, Czech Hydrometeorological Institute

ATAS P2 008 Chemical profiles of particulate matter emitted from the exhaust of heavy-duty vehicles under different driving cycles
Célia Alves, INÊS LOPES, Margarita Evtyugina, Ana Vicente, Fulvio Amato, Xavier Querol, Marta Almeida, Kati Lehtoranta | Centro De Ciências E Tecnologias Nucleares, Instituto Superior Técnico, Universidade De Lisboa

ATAS P2 009 Optical properties and chemical composition of the atmospheric aerosol in León city, Spain
CÁTIA GONÇALVES, Estela D. Vicente, Ana I. Calvo, Carlos Blanco-Alegre, Alberto Rodríguez-Fernández, Roberto Fraile | IMARENAB, University of León

ATAS P2 011 Source apportionment combining off-line and on-line measures approaches using EPA PMF 5.0 model and Multilinear Engine (ME-2) in an urban traffic station
INÊS CUNHA - LOPES, Alice Forello, Roberta Vecchi, Célia Alves, Ismael Casotti Rienda, Oxana Tchepel, Susana Marta Almeida | Centro De Ciências E Tecnologias Nucleares, Instituto Superior Técnico, Universidade De Lisboa

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ATAS P2 013 Equal abundance of summertime natural and wintertime anthropogenic Arctic organic aerosols
VAIOS MOSCHOS, K Dzepina, D Bhattu, H Lamkaddam, R Casotto, K Daellenbach, F Canonaco, P Rai, W Aas, S Becagli, G Calzolai, K Eleftheriadis, C Moffett, J Schnelle-Kreis, M Severi, S Sharma, H Skov, M Vestenius, W Zhang, H Hakola, H Hellén, L Huang, J Jaffrezo, A Massling, J Nøjgaard, T Petäjä, O Popovicheva, R Sheesley, R Traversi, K Yttri, J Schmale, A Prévôt, U Baltensperger, I El Haddad | University of North Carolina System

ATAS P2 014 Sources of highly dispersed aerosol particles in the atmosphere over Baikal
V. A. Zagaynov, A. A. Lushnikov, IGOR AGRANOVSKI, S. F. Timashev, V. V. Maksimenko, G. S. Zhamsueva, A. S. Zayakhanov, V. L. Chausov, D. K. Zagaynov | Griffith University

ATAS P2 015 Apportionment of black carbon, organic carbon and CO2 between traffic and domestic heating for the calculation of source-specific emission factors
BALINT ALFOLDY, Asta Gregoric, Matic Ivancic, Irena Jezek, Martin Rigler | Aerosol D.o.o

ATAS P2 016 One-year ACSM source apportionment of organic aerosol at the rural site
SAMIRA ATABAKHSH, Laurent Poulain, Gang Chen, Francesco Canonaco, Andre Prévôt, Hartmut Herrmann, Alfred Wiedensohler | Leibniz Institute for Tropospheric Research

ATAS P2 017 High-resolution summertime source apportionment of organic aerosols at Mace Head Atmospheric Research Station
EMMANUEL CHEVASSUS, Darius Ceburnis, Kirsten Fossum, Wei Xu, Jurgita Ovadnevaite | NUIG

ATAS P2 018 A comprehensive study of source impact in the Po valley (Italy) by multi-time receptor modelling
FEDERICA CROVA, Alice Corina Forello, Vera Bernardoni, Silvia Canepari, Francesca Costabile, Maria Agostina Frezzini, Fabio Giardi, Franco Lucarelli, Dario Massabò, Lorenzo Massimi, Silvia Nava, Marco Paglione, Giulia Pazzi, Paolo Prati, Matteo Rinaldi, Mara Russo, Sara Valentini, Gianluigi Valli, Virginia Vernocchi, Roberta Vecchi | Università degli Studi di Milano

ATAS P2 019 Change in fossil fuel and biomass burning emissions over Europe by means of Bayesian inverse modelling and positive matrix factorization
NIKOLAOS EVANGELIOU, Stephen Platt, Wenche Aas, Karl Espen Yttri | NILU-Norwegian Institute for Air Research

ATAS P2 020 Source Apportionment of PM2.5 in Montréal, Canada and Associated Health Risk Assessment
NANSI FAKHRI, Arnold Downey , Charbel Afif, Patrick L. Hayes | University of Montreal

ATAS P2 021 Contribution of the emission sources to the children's exposure to particles
TIAGO FARIA, Vânia Martins, Evangelia Diapouli, Manousos Ioannis Manousakas, Konstantinos Eleftheriadis, Susana Marta Almeida | Centro de Ciências e Tecnologias Nucleares, Instituto Superior Técnico

ATAS P2 022 In-depth source apportionment of PM2.5 in Dublin Port using online ACSM data
KIRSTEN FOSSUM, Srishti Jain, Chunshui Lin, Darius Ceburnis, Niall O'Sullivan, Stig Hellebust, John Wenger, Colin O'Dowd, Jurgita Ovadnevaite | NUI Galway

ATAS P2 025 Molecular characterization of organic aerosols in two heavily polluted cities of India: seasonality and sources
YUFANG HAO, Jan Strähl, Peeyush Khare, Tianqu Cui, Kristty Ortiz Beltran, Lu Qi, Dongyu Wang, Jens Top, Mihena Surdu, Deepika Bhattu, Imad Haddad, Himadri Bhowmik, Shubham Naresh, Pawan Vats, Pragati Rai, Satya Tiwari, Purushottam Kumar, Varun Kumar, Dilip Ganguly, Jay Slowik, Sachchida Tripathi, Andre Prevot, Kaspar Daellenbach | Paul Scherrer Institut

ATAS P2 026 Using hand-held particle sensors and an unmanned aerial vehicle to understand particle dispersion in Rafina, Greece
MOLLY HAUGEN, Savvas Gkantonas, Ingrid El Helou, Rohit Pathania, Epaminondas Mastorakos, Adam Boies | University of Cambridge

ATAS P2 027 Influence of air mass origin on the aerosol concentration in the Czech Ultrafine Aerosol Network
Adéla Holubová, MARCELA HEJKRLIKOVA, Helena Plachá, Miroslav Bitter | CHMI

ATAS P2 028 Development of A Simplified Potential Source Density Function
JEONGEUN KIM, Daehyun Wee | Ewha Womans University

ATAS P2 029 Long-term source apportionment of PM2.5 measured by CV-ToF-ACSM at Mt.Gwanak (632m) in Seoul, Korea
SU JIN KWON, Yanfang Chen, Hwajin Kim | Seoul National University

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ATAS P2 031 Origin of seasonal organic aerosol at two background sites in Central Europe
RADEK LHOTKA, Petra Pokorná, Petr Vodička, Naděžda Zíková, Jakub Ondráček, Saliou Mbengue, Shubhi Arora, Laurent Poulain, Hartmut Herrmann, Jaroslav Schwarz, Vladimír Ždímal | Institute of Chemical Process Fundamentals of the CAS

ATAS P2 032 Significant contribution to organic aerosols from nocturnal NO3-initiated oxidation of VOCs resolved by positive matrix factorization (PMF) analysis during the year-long JULIAC campaign
LU LIU, Thorsten Hohaus, Stefanie Andres, Birger Bohn, Frank Holland, Hendrik Fuchs, Ralf Tillmann, Zhaofeng Tan, Franz Rohrer, Vlassis Karydis, Vaishali Vardhan, Benjamin Winter, Andreas Hofzumahaus, Andreas Wahner, Astrid Kiendler-Scharr | IEK-8, Forschungszentrum Jülich

ATAS P2 033 Trends in the North Atlantic Dimethylsulfide Flux between 1998 and 2021
KARAM MANSOUR, Stefano Decesari, Matteo Rinaldi | CNR-ISAC

ATAS P2 034 How particle number measurement in yearly inspection of passenger cars reflect to real drive emissions?
SANTTU MIKKONEN, Miska Olin, Ville Leinonen, Sampsa Martikainen, Henri Oikarinen, Peter Lambaerts, Markus Nikka, Erkki Lamminen, Miikka Hölttä, Anssi Arffman, Panu Karjalainen | University of Eastern Finland

ATAS P2 035 Particle and Trace Gas Emissions Indices Measured During the 2021 Boeing ecoDemonstrator Emissions Ground Test
BENJAMIN NAULT, Richard Moore, Steven Baughcum, Matthew Brown, Elizabeth Wiggins, Edward Winstead, Luke Ziemba, Joshua DiGangi, Michael Shook, Kevin Sanchez, Richard Miake-Lye, Andrew Freedman, Francisco Guzman, Jennifer Klettlinger | Aerodyne Research Inc

ATAS P2 036 Investigation of microplastic transfer rates as a function of particle size through bursting bubbles at the air-water-interface
LISA MARIE OEHLSCHLAEGEL, Sebastian Schmid, Moritz Lehmann, Stephan Gekle, Andreas Held | Technische Universität Berlin / SFB1357

ATAS P2 037 Particle number, mass, and black carbon emission factors from fuel-operated auxiliary heater in real vehicle use
HENRI OIKARINEN, Miska Olin, Sampsa Martikainen, Ville Leinonen, Santtu Mikkonen, Panu Karjalainen | Department of Applied Physics, University of Eastern Finland

ATAS P2 038 Organic aerosol source apportionment of coarse particulate matter (PM10-2.5) in Switzerland using offline-aerosol mass spectrometry
KRISTTY STEPHANIE ORTIZ BELTRAN, Tianqu Cui, Houssni Lamkaddam, Anna Tobbler, Yufang Hao, Peeyush Khare, Jay Gates Slowik, Stuart Grange, Christoph Hüglin, Gaëlle Uzu, Jean-Luc JAFFREZO, Imad El Haddad, Kaspar Dallenbach, Andre Prevot | Paul Scherrer Institute

ATAS P2 039 Source Apportionment of Air Pollution in the Dublin Port Area (PortAIR)
Srishti Jain, Kirsten Fossum, Stig Hellebust, NIALL O'SULLIVAN, Darius Ceburnis, C. Lin, C. O'Dowd, Jurgita Ovadnevaite, John Wenger | University College Cork

ATAS P2 040 Dynamics, composition, and origin of submicron atmospheric aerosol at suburban and traffic site in Prague, Czech Republic
PETRA POKORNÁ, Naděžda Zíková, Petr Vodička, Radek Lhotka, Jakub Ondráček, Jaroslav Schwarz, Philip Hopke | Institute of Chemical Process Fundamentals of the CAS

ATAS P2 041 First source apportionment of atmospheric aerosols in Moscow urban background
OLGA POPOVICHEVA, Evangelina Diapouli, Marina Chichaeva, Dmitrii Vlasov, Natalia Kosheleva, Nikolay Kasimov, Manos Manousakas, Konstantinos Eleftheriadis | Moscow State University

ATAS P2 042 Unravelling the mysteries of oxidised organics in western Siberia
MERI RÄTY, Ekaterina Ezhova, Tuukka Petäjä, Markku Kulmala, Olga Garmash | University of Helsinki

ATAS P2 043 Compound-specific radiocarbon analysis (CSRA) of oxalate in aerosols: first results from multiple sites
MARTIN RAUBER, Gary Salazar, Vaios Moschos, André S. H. Prévôt, Sönke Szidat | University Bern

ATAS P2 044 Are asphalt pavements an important source of atmospheric particles precursors?
Jerome Lasne, Anais Lostier, Therese Salameh, MANOLIS ROMANIAS, Eleni Athanasopoulou, Dimitris Karagiannis, Nasia Kakouri, Stelios Myriokefalitakis, Evangelos Gerasopoulos | IMT Nord Europe

ATAS P2 045 Comparison of NR-PM1 aerosol chemical composition at urban and rural background sites
JAROSLAV SCHWARZ, Radek Lhotka, Petr Vodicka, Nadezda Zikova, Petra Pokorna, Jakub Ondracek, Vladimir Zdimal | ICPF CAS

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ATAS P2 046 Disclosure of fossil and non-fossil carbonaceous aerosols in Delhi with diurnal resolution
JAN STRÄHL, Yufang Hao, Peeyush Khare, Deepika Bhattu, Neeraj Rastogi, Dilip Ganguly, Sachchida N. Tripathi, Kaspar R. Daellenbach, André S.H. Prévôt, Sönke Szidat | University of Bern

ATAS P2 047 The Effect of the Averaging Period for PMF Analysis of Aerosol Mass Spectrometer Measurements during Off-Line Applications
CHRISTINA VASILAKOPOULOU, Iasonas Stavroulas, Nikolaos Mihalopoulos, Spyros N. Pandis | FORTH/ICEHT

ATAS P2 048 Submicron Aerosol Spatial Variation from Mobile and Ambient Measurements by mAMS in the Kathmandu valley, Nepal 2018
BENJAMIN WERDEN, Michael Giordano, Khadak Mahata, Douglas Goetz, Robuil Islam, Praveen Puppala, Arnico Panday, Robert Yokelson, Elizabeth Stone, Peter DeCarlo | Aerodyne Research Inc

ATAS P2 049 The effect of seawater salinity and seawater temperature on sea salt aerosol production
JULIKA ZINKE, Douglas Nilsson, Paul Zieger, Matthew E. Salter | Department of Environmental Science, Stockholm University

ATAS P2 050 Investigating the correlations between primary and secondary organic aerosol and gaseous pollutants to predict their concentrations in the central Los Angeles
Ramin Tohidi, ABDULMALIK ALTUWAYJIRI, Milad Pirhadi, Constantinos Sioutas | University of Southern California

ATAS P2 051 Long-Range Transport Impacts from Secondary Pollutant Sources in Seoul, Republic of Korea
Geun-Hye Yu, Sea-Ho Oh, Minsung Kim, Seoyeong Choe, Jaehee Jang, MyoungKi Song, MINSUK BAE | Mokpo National University

ATAS P2 052 Real-World Emission Rate of ammonia based on the tunnel study – comparison of chassis dynamometer test
MyoungKi Song, Sea-Ho Oh, Minsung Kim, Seoyeong Choe, Jaehee Jang, MINSUK BAE, Geun-Hye Yu | Mokpo National University

ATAS P2 054 Analysis of source origins and associations between airborne particles and microorganisms at a coastal Mediterranean site
SOFIA EIRINI CHATOUTSIDOU, Aggeliki Saridaki, Louiza Raisi, Eleftheria Katsivela, George Tsiamis, Apostolis Voulgarakis, Mihalis Lazaridis | Technical University of Crete

ATAS P2 055 High-resolution summertime source apportionment of organic aerosols at Mace Head Research Station
EMMANUEL CHEVASSUS, Darius Ceburnis, Wei Xu, Kirsten Fossum, Jurgita Ovadnevaite | NUIG

ATAS P2 056 Parameterizations of US wildfire emissions based on FIREX-AQ aircraft measurements
GEORGIOS GKATZELIS, Matthew Coggon, Chelsea Stockwell, Hannah Allen, Eric Apel, Megan Bela, Ilann Bourgeois, Pedro Campuzano-Jost, Jason Clair, James Crawford, John Crounse, Douglas Day, Joshua DiGangi, Glenn Diskin, Alan Fried, Jessica Gilman, Hongyu Guo, Johnathan Hair, Hannah Halliday, Thomas Hanisco, Reem Hannun, Alan Hills, Rebecca Hornbrook, Gregory Huey, Jose Jimenez, Joseph Katich, Aaron Lamplugh, Young Ro Lee, Jin Liao, Jakob Lindaas, Stuart McKeen, Thomas Mikoviny, Benjamin Nault, Andrew Neuman, John Nowak, Demetrios Pagonis, Jeff Peischl, Anne Perring, Felix Piel, Pamela Rickly, Michael Robinson, Andrew Rollins, Thomas Ryerson, Melinda Schueneman, Rebecca Schwantes, Joshua Schwarz, Kanako Sekimoto, Vanessa Selimovic, Taylor Shingler, David Tanner, Laura Tomsche, Krystal Vasquez, Patrick Veres, Rebecca Washenfelder, Petter Weibring, Paul Wennberg, Armin Wisthaler, Glenn Wolfe, Caroline Womack, Lu Xu, Robert Yokelson, Carsten Warneke | IEK-8: Troposphere, Forschungszentrum Jülich Gmbh, Jülich, Germany

ATAS P2 057 Sources of size-resolved Particle Number Concentration at an urban location in Athens
PANAYIOTIS KALKAVOURAS, G. Grivas, I. Stavroulas, A. Bougiatioti, E. Liakakou, E. Gerasopoulos, N. Mihalopoulos | National Observatory of Athens (NOA)

ATAS P2 064 Sources of particulate related pollution in a highly populated, industrialized area of Tajikistan
STEFANOS PAPAGIANNIS, V. Vasilatou, S. Abdullaev, K. Eleftheriadis, E. Diapouli | N.C.S.R. «Demokritos», Institute of Nuclear & Radiological Sciences & Technology, Energy & Safety, E.R.L

ATAS P2 066 Observation of elemental data of volcanic eruption particles by online X-ray fluorescence
KYOHEI NISHIZAWA, Erika Matsumoto, Kazushi Higa | Horiba, Ltd.

ATAS P2 067 Near molecular analysis of organic aerosol emissions from biomass, waste, and cow dung burning
JUN ZHANG, Kun Li, Tiantian Wang, Mihnea Surdu, Deepika Bhattu, Tianqu Cui, Lu Qi, Houssni Lamkaddam, Dongyu Wang, Imad El Haddad, Jay Slowik, David Bell, Andre Prevot | PSI

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ATAS P2 070 Source apportionment analysis at an urban background site, a roadside site, and the resulting roadside increment in London, UK
ANJA TREMPER, William Hicks, Max Priestman, Manousos Ioannis Manousakas, Andre Prevot, Gang Chen, David Green | Imperial College London

ATAS P2 072 Investigating the global secondary atmospheric pollutants response to emission reductions imposed during the COVID-19 pandemic
APOSTOLOS KOUMPAROS, Vlassis Karydis, Astrid Kiendler-Scharr, Alexandra Tsimpidi | Juelich Forschungszentrum IEK-8

ATAS P2 073 Advanced receptor modelling to retrieve additional information about primary vs. secondary organic aerosol apportionment
ROBERTA VECCHI, Alice C Forello, Vera Bernardoni, Sara Valentini, Federica Crova, Giulia Calzola, Franco Lucarelli, Silvia Nava, Ettore Petralia, Maurizio Gualtieri | Dept. of Physics - University of Milan

ATAS P2 074 The vehicle type-specified PM10 emission factors of tailpipe and non-tailpipe sources in Los Angeles basin
Constantinos Sioutas (USA)

ATAS P2 075 Relationships between the temporal variation of the conversion factor of Organic Carbon (OC) to Organic Matter (OM) and PM2.5 sources at a rural site in Northern France
PABLO ESPINA MARTIN, Esperanza Perdrix, Laurent Yves Alleman, Patrice Coddeville | IMT Nord Europe

ATAS P2 076 Source apportionment and seasonal variation of coarse-OC particles in central Los Angeles
Ramin Tohidi, Abdulmalik Altuwayjiri, CONSTANTINOS SIOUTAS | Univ of Southern California

ATAS P2 078 Physicochemical Characterization and Source Apportionment of Arctic Ice Nucleating Particles Measured in Ny-Ålesund in Autumn 2019
GUANGYU LI, Elise K. Wilbourn, Zezhen Cheng, Jörg Wieder, Allison Fagerson, Julie T. Pasquier, Jan Henneberger, Sarah D. Brooks, Mauro Mazzola, Swarup China, Naruki Hiranuma, Zamin A. Kanji | ETH Zurich

ATAS P2 080 Key factors explaining severe air pollution episodes in Hanoi during the winter season
BAO ANH PHUNG NGOC, Hervé Delbarre, Karine Deboudt, Elsa Dieudonné, Jacques Pelon, François Ravetta | Université du Littoral Côte d'Opale

ATAS P2 081 Sources of aerosols at a mixed port – industrial area in South-eastern Mediterranean
KYRIAKI-MARIA FAMELI, Vasiliki Assimakopoulos, Theodore Giannaros, Vasiliki Kotroni | National Observatory of Athens

ATAS P2 082 Development and application of the SmartAQ high-resolution air quality forecasting system for European urban areas
EVANGELIA SIOUTI, Ioannis Kioutsioukis, David Patoulias, Ksakousti Skyllakou, George Fouskas, Spyros N. Pandis | University of Patras

ATAS P2 086 Inverse modeling of volcanic emissions and their use for quantitative dispersion modeling: the 12th March 2021 Etna's eruption
ANNA KAMPOURI, Ondřej Tichý, Nikolaos Evangeliou, Vassilis Amiridis, Stavros Solomos, Eleni Marinou, Anna Gialitaki, Antonis Gkikas, Emmanouil Proestakis, Simona Scollo, Luca Merucci, Lucia Mona, Nikolaos Papagiannopoulos, Prodromos Zanis | IAASARS, National Observatory of Athens, Athens, Greece

ATAS P2 087 PM2.5 source apportionment and implications for particle hygroscopicity, at an urban background site in Athens, Greece
EVANGELIA DIAPOULI, Christina Spitieri, Maria Gini, Prodromos Fetfatzis, Pavlos Panteliadis, Stefanos Papagiannis, Vasiliki Vasilatou, Konstantinos Eleftheriadis | N.C.S.R. «Demokritos»

ATAS P2 088 Sources and Chemical Characteristics of Particulate Matter in the Arabian Gulf Region: First ACSM observations in Doha, Qatar
SHAMJAD PUTHUKKADAN MOOSAKUTTY, Mohammed A. Ayoub, Mohammedrami Alfarra | Qatar Environment and Energy Research Institute

ATAS P2 089 Elemental Size- Distributions of Aerosols Collected in a Mediterranean Harbour Area
BEGOÑA NAVARRO SELMA, A. Clemente, J.F. Nicolas, J. Crespo, A. Carratalá, F. Lucarelli, F. Giardi, N. Galindo, E. Yubero | Miguel Hernández University

ATAS P2 091 Reaction Products of Alkoxy Radicals in the Atmospheric Aqueous Phase
Lexy LeMar, V.P. Barber, Y. Li, F.N. Keutsch, J.H. Kroll | Massachusetts Institute of Technology

ATAS P2 092 Chemical composition of SOA from anthropogenic precursors: using the tracer approach
DIANA L. PEREIRA, Aline Gratien, Ouiza Boudaoud, Emmanuelle Mebold, Thomas Bertin, Antonin Berge, Mathieu Cazaunau, Edouard Pangui, Chiara Giorio, Christopher Cantrell, Vincent Michoud, Servanne Chevaillier, Anais Feron, Claudia Di Biagio, Gael Noyalet, Bénédicte Picquet-Varrault, Jean François Doussin, Paola Formenti | Université de Paris

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ATAS P2 093 Linkage of organic components in PM2.5 with aerosol liquid water during the winter in Northeast Asia's megacities (Seoul and Beijing)
AYOON SIM, Zihui Teng, Eun Lak Choi, Yong Pyo Kim, Junyoung Ahn, Seung Myung Park, Yanting Qiu, Zhijun Wu, Ji Yi Lee | Ewha Womans University

ATAS P2 094 Detailed chemical speciation and source apportionment of PM2.5 in densely populated Indo-Gangetic region using high-resolution mass spectrometry
PEEYUSH KHARE, Yufang Hao, Vishnu Murari, Sreenivas Gaddamidi, Jens Top, Marianne Gosselin, Tianqu Cui, K.V. George, Manousos-Ioannis Manousakas, Ashutosh Shukla, Lu Qi, Dongyu Wang, Jay Slowik, Sachchida Nand Tripathi, Kaspar R. Daellenbach, Andre S.H. Prevot | Paul Scherrer Institute

ATAS P2 095 Characterising the seasonal sources of urban organic aerosol using high-resolution mass spectrometry and factor analysis
SRI HAPSARI BUDISULISTIORINI, Daniel Bryant, Jonathan Taylor, Alfie Mayhew, David Topping, Jacqueline Hamilton | University of York

ATAS P2 096 New insights into online molecular characterization of organic aerosol in China using extractive electrospray ionization and ultrahigh resolution mass spectrometry
LU QI, KaYuen Cheung, Ping Chuan Lee, Dongyu Wang, Zhiyu Li, Weikang Ran, Weiqi Xu, Qingqing Wang, Tianqu Cui, Yuemei Han, Qiyuan Wang, Zifa Wang, Yele Sun, Urs Baltensperger, Imad Haddad, Junji Cao, Andre Prevot, Jay Slowik | Paul Scherrer Institute

ATAS P2 097 Effectiveness of emission control on highly oxygenated organic molecules: ambient observation by chemical ionization (CI)-orbitrap in Shanghai
YANJUN ZHANG, Yingge Ma, Clement Dubois, Sebastien Perrier, Hui Chen, Hongli Wang, Shengao Jing, Yiqun Lu, Shengrong Lou, Chao Yan, Wei Nie, Jianming Chen, Cheng Huang, Christian George, Matthieu Riva | IRCELYON, Institut De Recherches Sur La Catalyse Et L'environnement

ATAS P2 098 The impact of the IMO-2020 shipping regulation on the atmospheric deposition of sulfur around the Western English Channel and the use of the V/Ni ratio as a shipping marker
LAURENCE WINDELL, T.G. Bell, C. White, A. Milne, J. Schwarz, S.J. Ussher | UCHP-CAS

ATAS P2 099 Identification of Major Sources of Organic Aerosols in the Antarctic Atmosphere
KI AE KIM, Eunho Jang, Ki-Tae Park, Jiyeon Park, Yeontae Gim, Young Jun Yoon, Chang Hoon Jung, Yong Pyo Kim, Ji Yi Lee | Ewha Womans University

ATAS P2 100 A chemical characterisation of gas-phase oxidised organic species during the winter in Delhi
SOPHIE HASLETT, Varun Kumar, Suneeti Mishra, Atinderpal Singh, Neeraj Rastogi, Dilip Ganguly, David Bell, Jay Slowik, Urs Baltensperger, Andre Prevot, Sachchida Tripathi, Claudia Mohr | Stockholm University

ATAS P2 101 The effect of wood fuel species on particulate and gaseous emissions from a wood stove
KARNA DAHAL, Rosa Tamminen, Henna Rinta-Kiikka, Jarkko Tissari | University of Eastern Finland

ATAS P2 103 Nontarget screening exhibits a seasonal cycle of PM2.5 organic aerosol composition in Beijing
JIALIANG MA, Florian Ungeheuer, Feixue Zheng, Wei Du, Yonghong Wang, Jing Cai, Ying Zhou, Chao Yan, Yongchun Liu, Markku Kulmala, Kaspar Daellenbach, Alexander Vogel | JIALIANG MA, Florian Ungeheuer, Feixue Zheng, Wei Du, Yonghong Wang, Jing Cai, Ying Zhou, Chao Yan, Yongchun Liu, Markku Kulmala, Kaspar Daellenbach, Alexander Vogel

ATAS P2 104 Characteristics of organic compounds in PM2.5 at a representative background site in Northeast Asia
MINAMI KONDO, Zihui Teng, Ayoon Sim, KiAe Kim, Atsushi Matsuki, JiYi Lee | Ewha Womans University

ATAS P2 105 Wet Scavenging of Carbonaceous Aerosol Fractions during Pre-Monsoon and Monsoon Seasons over Northern India
SAURABH SONWANI | Zakir Husain Delhi College, University of Delhi, Delhi, India

ATAS P2 107 Compilation of a worldwide submicron aerosol composition observational dataset for atmospheric chemistry model evaluations
SUSANNE SCHOLZ, Vlassis A. Karydis, Astrid Kiendler-Scharr, Alexandra P. Tsimpidi | Forschungszentrum Jülich GmbH

ATAS P2 108 Different Characteristics Organic Compounds in PM2.5 during Winter and Summer Periods at Three Capital Cities in Northeast Asia
ZIHUI TENG, KiAe Kim, YeonJung Lee, AYoon Shim, Amgalan Natsagdorj, ZhiJun Wu, JiYi Lee | Ewha Womans University

ATAS P2 109 Transport and transformation of atmospheric aerosol across Central Europe with emphasis on anthropogenic sources
SHUBHI ARORA, Laurent Poulain, Radek Lhotka, Jakub Ondracek, Petra Pokorna, Jaroslav Schwarz, Petr Vodicka, Vladimir Zdimal, Hartmut Herrmann | Leibniz Institute of Tropospheric Research

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ATAS P2 110 Chemical characterization of aerosol particles in a built environment with distinct sources of particulate matter
LUIS MIGUEL FEIJO BARREIRA, T. Lepistö, L. Salo, A. Helin, M. Aurela, S. Saarikoski, N. Kuittinen, T. Rönkkö, H. Timonen | Finnish Meteorological Institute

ATAS P2 112 Sources of Atmospheric particulate mercury in the northern Indo-Gangetic Plain and the Himalayan foothills: mercury stable isotopic approach
LEKHENDRA TRIPATHEE, Junming Guo, Chhatra Mani Sharma, Shichang Kang | State Key Laboratory of Cryospheric Science, Northwest Institute of Eco-environment and Resources, Chinese Academy of SC

ATAS P2 113 PM10 differentiation and source apportionment supported by automated SEM/EDX single particle analysis for quantification of primary particles
JUANITA RAUSCH, David Jaramillo Vogel, Sébastien Perseguers | Particle Vision

ATAS P2 114 Long-term parallel off-line and semi-online OCEC measurements at the ACTRIS site National Atmospheric Observatory Košetice
SALIOU MBENGUE, Milan Vana, Jaroslav Pekarek, Adéla Holubová Šmejkalová, Jaroslav Schwarz, Eva Chalupnickova, Petr Vodička, Roman Prokes | Global Change Research Institute, Czech Academy of Sciences

ATAS P2 115 Modeling aviation emissions, and associated PM2.5 and human health impacts in the context of a changing atmospheric composition
IRENE DEDOUSSI, Flávio Quadros | TU Delft

ATAS P2 116 Formation factors of secondary PM over Germany
RUUD JANSSEN, Leon Geers, Renske Timmermans, Martijn Schaap | TNO

ATAS P2 117 Bacteria emissions from the Baltic Sea
JULIKA ZINKE, Gabriel Freitas, Piotr Markuszewski, Rachel A. Foster, Matthew E. Salter, Paul Zieger, Monica Mårtensson, Anna Rutgersson, Douglas Nilsson | Department of Environmental Science, Stockholm University

ATAS P2 118 Spatial-temporal variation of air quality in León (Spain)
Iván Postigo, Cátia Gonçalves, Ana Isabel Calvo, Carlos Blanco-Alegre, Fernanda Oduber, ROBERTO FRAILE | University of Leon

ATAS P2 119 Air quality in the city of León: the role of air masses
Maite Huertas, Estela Domingos Vicente, Ana Isabel Calvo, ROBERTO FRAILE | University of Leon

ATAS P2 120 Biomonitoring PM using transplanted lichens in an urban-industrial area of the Lisbon Metropolitan Area and integration with reference monitoring method
CARLA A. GAMELAS, Leonor Abecasis, Ana Rita Justino, Isabel Dionísio, Nuno Canha, Zsofia Kertesz, Susana Marta Almeida | Escola Superior de Tecnologia de Setúbal - Instituto Politécnico de Setúbal

POSTER AREA 3

AT P1

Functional nanoparticles

AT P1 002 Room Temperature Sensors for Instant and Highly Selective Detection of NO2
KATARZYNA JABLCZYNSKA, Luca Dahle, Dina N. Oosthuizen, Sotiris E. Pratsinis | ETH Zürich

AT P1 003 From flame-aerosol-made nanoparticles to commercial devices: Selective methanol detection for food, sanitizers and breath analysis
MATTEO D'ANDRIA, Jan van den Broek, Sotiris Pratsinis, Andreas Güntner | ETH Zurich

AT P1 004 Self-calibrating LRET system for homogeneous detection of avian influenza viruses
DONGKYU KANG, Inae Lee, Joonseok Lee | Hanyang University

AT P1 005 A biofunctionalized silica nanosponge for clearance of Alzheimer's β-amyloid peptides
SEUNGHEE KIM, Huijin Jung, Joonseok Lee | Hanyang University

AT P1 006 Near-infrared signal-based sensor platform with wireless data transmission system for detection of foot-and-mouth disease virus
SUYEON KIM, Eunyoung Jeon, Sung Hyeon Park, Eung-Kyu Park, Soyoon Ryoo, Sang-Ho Cha, Dong-Hoon Lee, Joonseok Lee | Hanyang University

AT P1 007 Particle Characterization of Flame-synthesized Carbon/TiO2 Nanoparticles and Their Application as Anode Material of Lithium Secondary Battery
Junghyun Kim, Jin-Soo Jung, GYOWOO LEE | Jeonbuk National University

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AT P1 008 Flame made Calcium phosphate nanoparticles for delivery of nucleic acids
ANSHIKA MAHESHWARI, Francesco Righetti, Birgitta Henriques-Normark, Georgios Sotiriou | Karolinska Institute

AT P1 009 Ammonia sensing by silver nanoparticles for point of care diagnostic applications
PADRYK MERKL, Georgios A. Sotiriou | Karolinska Institutet

AT P1 010 pH sensitive nanoparticle coatings for biofilm interfacial acidity evaluation
PADRYK MERKL, Marie-Stéphanie Aschtgen, Birgitta Henriques-Normark, Georgios A. Sotiriou | Karolinska Institutet

AT P1 012 Nanostructured thin film printing for CO2 sensor application
KATHARINA WEBER, Pauline Roels, Tobias Pfeiffer | VSPARTICLE

AT P1 013 Preparation of catalyst coated membranes for PEM water electrolysis via spark ablation
Sofia Dimitriadou, Foteini Sapountzi, Wilbert Vrijburg, Marek Lavorenti, TOBIAS PFEIFFER, Mihalis Tsampas | VSParticle B.V.

AT P1 014 Polymer nanocomposites by additive manufacturing with flame-made photothermal nanofillers
ISABEL SONDÉN, Jill Ziesmer, Padryk Merkl, Georgios A. Sotiriou | MTC Karolinska Institute

AT P1 015 Flame-made calcium phosphate bionanomaterials for bone tissue engineering
YAEL DEL CARMEN SUÁREZ LÓPEZ, Georgios A. Sotiriou | Karolinska Institutet

AT P1 016 Carbon black surface chemistry and internal nanostructure during internal oxidation
UNA TRIVANOVIC, Yannik Meisterhans, Georgios Kelesidis, Sotiris Pratsinis | ETH Zürich

AT P1 018 Aerosol fabrication of photothermal gold nanoaggregates with controllable near-infrared extinction
Jill Ziesmer, Isabel Sondén, GEORGIOS A. SOTIRIOU | Karolinska Institutet

AT P1 021 EHDA fabricated metal-doped polymeric nanoparticles for applications in water technology
INDRA SCHEPERS RESÉNDIZ, Jorrit Tolsma, Antonio J. Carrasco-Munoz, Luewton L. F. Agostinho | NHL Stenden University of Applied Sciences

AT P1 022 Variation in the crystallographic composition of iron oxide in Liquid Flame Spray
Miika Sorvali, Mari Honkanen, Leo Hyvärinen, JYRKI MÄKELÄ | Tampere University, Physics Unit

AT P1 023 Prevention of biofilm formation by hydrophobic inorganic nanoparticles coatings
STEFANIE DIETL, Padryk Merkl, Georgios Sotiriou | Karolinska Institutet

AT P1 024 Large-scale fabrication of highly sensitive SERS surfaces for food safety diagnostics
HAIPENG LI, Georgios Sotiriou | Karolinska Institutet

AT P1 025 Aerosol Photoemission Spectroscopy (APES) as a method for electron work function determination at ambient conditions
V. Olszok, M. Bierwirth, A.P. Weber | TU Clausthal

AT P1 026 Controlling the shape and size of Ag and Pt aerosol nanoparticles for aerosol jet 3D-printing
ALEXEY EFIMOV, Kirill Khabarov, Denis Kornyushin, Vladislav Borisov, Pavel Arsenov, Anna Lizunova, Victor Ivanov | Moscow Institute of Physics and Technology

AT P1 027 Numerical simulation of three-dimensional nanoprinting with charged aerosols
CHANGNYEONG HUR, Kwang-Yeong Kim, Wooik Jung, Mansoo Choi | Seoul National University

AT P1 028 Novel application of machine learning techniques for rapid source apportionment of Aerosol Mass Spectrometer datasets
MANISHKUMAR SHRIVASTAVA, Paritosh Pande, John E. Shilling, Alla Zelenyuk, Qi Zhang, Qi Chen, Nga Lee Ng, Yue Zhang, Masayuki Takeuchi, Theodora Nah, Quazi Z. Rasool, Yuwei Zhang, Bin Zhao, Ying Liu | Pacific Northwest National Laboratory

AT P1 029 An image based diagnostic tool for electrohydrodynamic atomization stability monitoring
NIKOLAS SOCHORAKIS, Nikolaos Katsoulidis, Georgios Kylafis, Georgios Biskos, Kyriaki Savva, Christoforos Skourides | Recover Ltd

AT P1 032 Application of electrospray-scanning mobility particle sizer for the measurement of mixed abrasive slurry in chemical mechanical planarization process
JUHWAN KIM, Donggeon Kwak, Taesung Kim | Sungkyunkwan University

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AT P1 033 Evaluation of chemical mechanical planarization slurry dispersion using a combined scanning mobility particle sizer-optical particle sizer system
DONGGEON KWAK, Juhwan Kim, Taesung Kim | SungKyunKwan University

AT P1 034 Observation of nanoparticles and electrode damages produced by spark discharge with an atomizer and a bubbler
CHANG GYU WOO, Sukbyung Chae, Junghoon Lee | Koreatech

AT P1 036 Flame-made calcium phosphate: a novel nanoplatform for drug delivery
VASILIKI TSIKOURKITOUDI, Georgios Sotiriou | Karolinska Institutet

AT P1 037 On the mixing dynamics of the electrodes' material during the formation of multicomponent nanoparticles in a spark discharge generator
Lajos Péter Villy, Gábor Galbács, Zsuzsanna Márton, Zsolt Geretovszky, ATTILA KOHUT | University of Szeged

AT P1 038 Plug-In Aero-Manufacture of Nanobulges for an In-Place Anticoronaviral on Air Filters
JISOO CHOI, Gihyeon Yu, Jaeho Oh, Sanggwon An, Jungho Hwang, Jeong Hoon Byeon | Department of Mechanical Engineering

AT P1 040 Mobility Diameter and Effective Density via a Machine Learning Analysis of Computationally Generated Fractal Aggregates
ATHANASIOS G. KONSTANDOPOULOS, Panagiotis Saragiotis, Ioanna Marina Anagnostara, Maria Syrigou | Department of Mechanical Engineering

AT P1 041 Mechanistic insight of 1D nanomaterial (1D-NM) growth via floating catalyst chemical vapor deposition (FCCVD) based on different catalyst synthesis methodologies
MIGUEL VAZQUEZ-PUFLEAU, Isabel Gómez Palos, Luis Arévalo, Juan José Vilatela | IMDEA Materials

AT P1 042 Synthesis of NaA Zeolite adsorbents from Incineration Fly Ash for NOx Removal
DARMANSYAH DARMANSYAH, Sheng-Jie You, Ya-Fen Wang | Chung Yuan Christian University

AT P1 043 Large-scale synthesis of 3D nanonetworked silica film on metal substrate
EUNYOUNG JEON, Suyeon Kim, Sunghyun Park, Joonseok Lee | Hanyang University

AT P1 044 Signal-amplifiable porous nanostructures for detection of infectious viruses
SUNGHYUN PARK, Joonseok Lee | Hanyang University

AT P1 045 Palladium nanoparticles produced by spark ablation for semiconductor nanowire growth
MARIE BERMEO, S. Franzén, M. E. Messing | Lund University

AT P1 046 Aerosol Synthesis of Layered Nickel Manganese Cobalt Oxide (NMC) Cathode Materials for Lithium Ion Battery
MANAR ALMAZROUEI, Adam Boies | University of Cambridge

AT P1 047 Antibiofilm mechanism of flame-made silver nanoparticle implant coatings
FELIX GEISSEL, Georgios Sotiriou, Varvara Platina, Inge Herrmann, Maria Chatzinikolaidou, Georgios Belibasakis, Alexander Gogos | Karolinska Institutet

AT P1 048 Critical Phenomena in Nanoparticle Condensation Growth: Role of External Charging
Igor Altman, IGOR AGRANOVSKI, Elena Fomenko | Griffith University

AT P1 049 Oxidation dynamics of soot produced by spray combustion of jet fuel
AMOGH NAGARKAR, Georgios Kelesidis, Una Trivanovic, Sotiris Pratsinis | ETH Zurich

AT P1 050 Detection of single molecules by spray-drying-based surface-enhanced Raman spectroscopy
SOMA KEMMOTSU, Chigusa Matsumoto, Masao Gen, Atsushi Matsuki, Makoto Hirasawa, Takafumi Seto | Kanazawa University

AT P1 051 In-situ ETEM oxidation of Co-Ni nanoparticles generated by spark ablation
PAU TERNERO I SAURA, David Wahlqvist, Daniel Madsen, Mehran Sedrpooshan, Julia-Maria Hübner, Rasmus Westerström, Martin Ek, Maria Messing | Lund University, NanoLund

AT P1 052 CFD-PBE Modelling of aerosol synthesis of silica nanoparticles in laminar and turbulent flames
MALAMAS TSAGKARIDIS, Stelios Rigopoulos, George Papadakis | Imperial College London

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

POSTER AREA 3

BAP P1

Heat and mass transfer: Experiments and simulations

BAP P1 001 Molecular composition of toluene-SOA: effect of "good", "transient" and "risky" conditions in the oxidation flow reactor "PEAR" and comparison to a smog chamber
HENDRYK CZECH, Pasi Yli-Pirilä, Petri Tiitta, Mika Ihalainen, Eric Schneider, Patrick Martens, Barbara Giocastro, Thomas Adam, Jorma Jokiniemi, Thomas Gröger, Christopher P. Rüger, Olli Sippula, Ralf Zimmermann | University of Rostock

BAP P1 002 Assessing the Particle Wall Loss in the AURA Simulation Chamber
EMIL MARK IVERSEN, Pontus Roldin, Henrik B. Pedersen, Merete Bilde | Aarhus University

BAP P1 003 Photochemical Aging in the Large Aerosol Chamber (PHOTO-LAC)
HENDRYK CZECH, Olga Popovicheva, Dmitriy Chernov, Alexander Kozlov, Eric Schneider, Christopher Rüger, Valerii Kozlov, Vladimir Shmargunov, Ralf Zimmermann | University of Rostock

BAP P1 004 Hypochlorous acid multiphase chemistry with wood smoke and chloride-containing aerosol
SPIRO JORGA, Jonathan Abbatt | University of Toronto

BAP P1 005 Elucidating formation pathways of highly oxygenated organic molecules (HOM) from a-pinene ozonolysis using selective deuteration
MELISSA MEDER, Frans Graeffe, Jenny Luo, Jonathan Varelas, Otso Peräkylä, Theo Kurtén, Matti Rissanen, Matthieu Riva, Franz Geiger, Regan Thomson, Mikael Ehn | University of Helsinki

BAP P1 006 Secondary organic aerosol formation during the oxidation of large aromatic and other cyclic anthropogenic volatile organic compounds
DAMIANOS PAVLIDIS, Andrea Simonati, Kalliopi Florou, Christina Vasilakopoulou, Aggeliki Matrali, Christos Kaltsonoudis, Spyros Pandis | University of Patras

BAP P1 007 A test facility with an anthropomorphic head form to measure Fit Factor against aerosols-Application on Covid-19 facemasks
DAMIEN PRESLE | DGA

BAP P1 008 SOA formation using urban ambient air as a matrix component
Eva Johanna Horchler, Joel Alroe, Wan-Ping Hu, ZORAN RISTOVSKI, Boguang Wang, Hao Wang, Branka Miljevic | QUT

BAP P1 009 The Role of Peroxy Radical Chemistry in Secondary Organic Aerosol Yields and Composition
NADIA TAHSINI, Matthew Goss, Victoria Barber, Yaowei Li, Frank Keutsch, Jesse Kroll | Massachusetts Institute of Technology

BAP P1 010 EUROCHAMP-2020 Multi-chamber Experiments: Toluene Photo-oxidation and Secondary Organic Formation
PETRO URUCI, Kalliopi Florou, Christos Kaltsonoudis, Spyros N. Pandis, Bénédicte Picquet-Varrault, Jean-François Doussin, Ari Leskinen, Annele Virtanen, David M. Bell, Anke Mutzel, Falk Mothes, Hartmut Herrmann, Milagros Ródenas, Amalia Muñoz, Hendrik Fuchs, M. Rami Alfarra, Aristeidis Voliotis, Gordon McFiggans, Iulia V. Patroescu-Klotz, Niklas Illmann | Institute of Chemical Engineering Sciences (FORTH/ICE-HT)

BAP P1 011 Gas-to-particle partitioning of monoterpene oxidation products under varying humidity conditions utilizing the stirred atmospheric tank reactor SAPHIR STAR
TILL ZIEHM, Thorsten Hohaus, Quanfu He, Rongrong Wu, Sören Zorn, Thomas Mentel, Astrid Kiendler-Scharr | Institute for Energy and Climate Research: Troposphere (IEK-8), Forschungszentrum Jülich GmbH

BAP P1 012 The effect of temperature on secondary organic aerosol formation from ozonolysis of Δ-3-carene
LINJIE LI, Ditte Thomsen, Michael Priestley, Emil Mark Iversen, Jane Tygesen Skønager, Yuanyuan Luo, Mikael Ehn, Henrik B. Pedersen, Merete Bilde, Marianne Glasius, Mattias Hallquist | University of Gothenburg

BAP P1 013 Oxidation product characterization from ozonolysis of the diterpene ent-kaurene
YUANYUAN LUO, Olga Garmash, Haiyan Li, Frans Graeffe, Arnaud P. Praplan, Anssi Liikanen, Yanjun Zhang, Melissa Meder, Otso Peräkylä, Josep Peñuelas, Ana María Yáñez-Serrano, Mikael Ehn | Institute for Atmospheric and Earth System Research/Physics, University of Helsinki

BAP P1 014 Urban grime photochemistry and its interaction with the air pollutants NO and NO2
FALK MOTHES, Hartmut Herrmann | Leibniz Institute for Tropospheric Research (TROPOS)

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BAP P1 015 Simulation of aerosol flows with intense nucleation-growth coupling using the sectional method in general purpose CFD code
Dimitris Mitrakos, HARIS EFTHYMIOU, Alexandros Vouros | NTUA

POSTER AREA 3

BAP P2

Quantum chemistry of aerosol formation

BAP P2 001 Anthropogenic volatile organic compound (AVOC) autoxidation – what we know, and what we think we know
MATTI RISSANEN, L. Pichelstorfer, P. Roldin, O. Garmash, S. Iyer, S. Barua, P. Seal, R. Valiev, Z. Wang, M. Sarathy, T. Kurtén, M. Boy, M. Ehn | Tampere University

BAP P2 002 Computational Studies of Reaction Routes for 3(RO···OR') Intermediates Formed in Peroxy Radical Self- and Cross-Reactions
GALIB HASAN, Rashid R. Valiev, Vili-Tuneli Salo, Jakub kubečka, Theo Kurten | University of Helsinki

BAP P2 003 Acyl peroxy radical hydrogen shift (H-shift) reaction – a key to rapid formation of highly oxygenated organic molecules (HOM) in OH-initiated oxidation of hexanal
SHAWON BARUA, Siddharth Iyer, Prasenjit Seal, Matti Rissanen | Tampere University

BAP P2 004 Determination of Binding Free Energy of Very Large Sulfuric Acid-Ammonia Clusters
MORTEN ENGSVANG, Jonas Elm | Aarhus University

BAP P2 005 Fragmentation of ROOR peroxides inside PTR-based mass spectrometers
THOMAS GOLIN ALMEIDA, Haiyan Li, Yuanyuan Luo, Jian Zhao, Brett B. Palm, Christopher D. Daub, Wei Huang, Claudia Mohr, Jordan E. Krechmer, Mikael Ehn, Theo Kurtén | University of Helsinki

BAP P2 006 Self-reactions of tertiary peroxyl radicals in the atmospheric gas phase
VILI SALO, R. Valiev, T. Kurtén | University of Helsinki

BAP P2 007 Kinetics and mechanistic study of naphthalene oxidation in atmosphere
PRASENJIT SEAL, Matti P Rissanen, Olga Garmash, Siddharth Parameswaran Iyer, Avinash Kumar | Tampere University

POSTER AREA 3

LP1 P1

Late Posters 1

LP1 P1 001 Inhalable Pulmonary Nanomedicine to Treat Multidrug Resistant Tuberculosis
KHALED ALZAHABI, Theoni Georgiou, Brian Robertson, Omar Usmani, Alexandra Porter, Teresa Tetley | Imperial College London

LP1 P1 002 Aerosol droplets generated from the impact of a rough or broken liquid jet
MODOU MBAYE, Mamadou Sow, Christophe Josserand | IRSN (Institute for Radiological Protection and Nuclear Safety)

LP1 P1 003 Sources of Particle Bound PAHs in Northwestern Black Sea Region of Türkiye
EMRE DIKMEN, E. Sağırlı, T. Eryakalı, E. Sarıkaya, B. Taşdemir, Z. Gemici, O. Kale, F. Öztürk | Bolu Abant Izzet Baysal University

LP1 P1 004 Advances in Portable Aerosol Instruments for Deployment on-board Unmanned Aerial Vehicles & Other Mobile Platforms
F.J. BRECHTEL, A.B. Corless, L. Rezonable, X. Lopez-Yglesias, Z. Robbins | Brechtel Mfg Inc

LP1 P1 006 A Thermodynamically Rigorous Treatment of Bulk-Surface Partitioning in Organic Aerosols and Cloud Condensation Nuclei
RYAN SCHMEDDING, Andreas Zuend | McGill University

LP1 P1 007 Organosulfates in the Eastern Mediterranean region
S. P. Kotsaki, M. Pitsou, A. Rodis, M. Trika, N. Papadopoulos, P.G. Kanellopoulos, E. BAKEAS | National and Kapodistrian University of Athens

POSTER AREA 3

SS2 P1

Special Session-2: COVID-19, aerosols and ventilation

SS2 P1 001 Sensing kit for the study of respiratory disease transmission in school classrooms
Oriol Villanova, Edgar Batista, Agustí Solanas, Antoni Martínez-Ballesté, Francisco Huera-Huarte, Alexandre Fabregat, Antonio Vernet, JOAN ROSELL-LLOMPART | Universitat Rovira I Virgili

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

SS2 P1 002 Physicochemistry of human respiratory aerosol: measurements, models, and analogues
ROBERT GROTH, Sadegh Niazi, Luke Cravigan, Graham Johnson, Zoran Ristovski | Queensland University of Technology

SS2 P1 003 Experimental and numerical investigation of a low-cost ventilation system for aerosol concentration reduction
MAXIMILIAN KERNER, Dzmitry Misiulia, Sergiy Antonyuk | Institute of Particle Process Engineering / Technische Universität Kaiserslautern

SS2 P1 004 Mitigating Indoor Risk of Airborne Infections: the MIRAI project
ALESSANDRO BIGI, Tommaso Filippini, Marco Vinceti, Grazia Ghermandi | University of Modena and Reggio Emilia

SS2 P1 005 The Influence of Large Mobile Air Purifiers on the Aerosol Concentration in Classrooms
FINN FELIX DUILL, Florian Schulz, Frank Beyrau | University Magdeburg

SS2 P1 006 Determining the ultraviolet radiation dose of an aerosol using ultraviolet-sensitive dyes
QINGQING FU, Frank Einar Kruis | Institute of Technology for Nanostructures (NST)

SS2 P1 007 SARS-CoV-2-size particle removal from the breathing zone: the effects of different ionization types
PREDRAG KOLARZ, A.Ž. Ilić, M. Janković, A.M. Trbovich | Institute of Physics Belgrade

SS2 P1 008 Comparison of aerosol size distribution and size fractionated SARS-CoV-2 concentration in different patient rooms
SZILVIA KUGLER, Árpád Farkas, Péter Füri, Veronika Groma, János Osán, Attila Nagy, Tamás Erdélyi, Alpár Horváth, Veronika Müller, Réka Szántó-Egész, Adrienn Micsinai, Balázs Madas | Centre for Energy Research

SS2 P1 009 Aerosol particles smaller than 3 µm contain the majority of exhaled SARS-CoV-2
Malin Alsved, David Nygren, Sara Thuresson, Carl-Johan Fraenkel, Patrik Medstrand, JAKOB LÖNDAHL | Lund University

SS2 P1 010 Size-resolved filtration efficiency of PPEs after different disinfection treatments
JAKUB ONDRACEK, Lucie Ondrackova, Josef Vosahlik, Michal Drevinek, Petr Otahal | ICPF CAS

SS2 P1 015 Generation of datasets using POD for artificial intelligence to predict and control an energy-efficient indoor ventilation system to reduce aerosol particle dispersion in the inhalation zone
LAURA BITTEL, Raoul Zöllner, Jennifer Niessner | Institute of Flow in Additively Manufactured Porous Media (ISAPS), Heilbronn University of Applied Sciences

SS2 P1 016 Aerosol exhalation rates from children and adults during breathing, speaking and singing
LAUREN MCCARTHY, Justice Archer, Henry Symons, Natalie Watson, Christopher Orton, William Browne, Joshua Harrison, Benjamin Moseley, Keir Philip, James Calder, Pallav Shah, Bryan Bzdek, Declan Costello, Jonathan Reid | University of Bristol

SS2 P1 017 Performance of community face masks and surgical masks: influence of washing parameters
Henrietta Whyte, AURÉLIE JOUBERT, Laurence Le Coq, Jérémie Pourchez | IMT Atlantique / GEPEA Laboratory

SS2 P1 019 Mucin transiently mitigates the loss of coronavirus infectivity in aerosol through inhibition of particle efflorescence
ROBERT ALEXANDER, Jianghan Tian, Allen Haddrell, Dan Hardy, Henry Oswin, Edward Neal, Mara Otero-Fernandez, Adam Finn, Andrew Davidson, Darryl Hill, Jonathan Reid | University of Bristol

SS2 P1 020 Enhanced enrichment of collected airborne coronavirus and influenza virus samples via a ConA-coated microfluidic chip for PCR detection
AMIN PIRI, Kyung-A Hyun, Hyo-Il Jung, Jungho Hwang | Yonsei University

SS2 P1 021 Reducing indoor particle exposure – experimental and numerical analysis
LUKAS SPRINGSKLEE, A. Tobisch, S. Berger, J. Niessner | Heilbronn University of Applied Sciences

SS2 P1 022 Quarantine effect on solar irradiance attenuation by aerosols in the Mediterranean
ABDELMOULA BEN-TAYEB, Mohammed Diouri, Meziane Rajae, Salhi Ouassila | MED-FST, Sultan Moulay Slimane University, Beni Mellal, Morocco

POSTER SESSION 1 — Monday, 5 September 2022 | 17:00-19:00

SS2 P1 023 Performance evaluation of cordless handheld vacuum cleaners
Maxie Lin, Yu-Mei Kuo, Siang-Kai Jhan, Li-Yi Li, Chih-Wei Lin, Sheng-Hsiu Huang, CHIH-CHIEH CHEN | Institute of Environmental and Occupational Health Science, National Taiwan University

SS2 P1 024 Air cleaning performance evaluation of cleaning robots
Siang-Kai Jhan, Li-Yi Li, Chih-Wei Lin, Sheng-Hsiu Huang, CHIH-CHIEH CHEN | Institute of Environmental and Occupational Health Science, National Taiwan University

SS2 P1 025 Emission Rates, Size Distributions and Generation Mechanism of Oral Respiratory Droplets
JOSHUA HARRISON, Lauren P McCarthy, Brian Saccente-Kennedy, Christopher M Orton, Justice Archer, Henry E Symons, Alicja Szczepanska, Jonathan P Reid, Ruth Epstein, Bryan R Bzdek | University of Bristol

SS2 P1 026 Airways Mucosal Defense of Elderly and Sick People Needs Support from Building Services against Aerogenic Threats
WALTER HUGENTOBLER | LAPI Group, EPFL

SS2 P1 027 Development of a novel barrier face covering
Chieh-Ling Chen, Yu-Mei Kuo, Ching-Yi Chiu, Chih-Wei Lin, Sheng-Hsiu Huang, CHIH CHEN | Institute of Environmental and Occupational Health Science, National Taiwan University

SS2 P1 029 Effect of meteorological factors on spread of COVID-19 in India and air quality during COVID-19 lockdown
SARVAN KUMAR | Purvanchal University, Jaunpur, India

SS2 P1 030 SARS-CoV-2 airborne infection transmission risk in transport microenvironments
LUCA STABILE, Gino Cortellessa, Giorgio Grossi, Fausto Arpino, Michele Bertone, Giorgio Buonanno | University of Cassino and Southern Lazio

SS2 P1 031 The Dynamics of SARS-CoV-2 Infectivity with Changes in Aerosol Microenvironment
ALLEN HADDRELL, Henry Oswin, Mara Otero Fernandez, James Mann, Tristan Cogan, Tom Holditch, Jianhan Tian, Dan Hardy, Darryl Hill, Adam Finn, Andrew Davidson, Jonathan Reid | University of Bristol

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

POSTER AREA 1

AH P3

Exposure: Sources and health studies

AH P3 001 Analysis of bioaerosol diversity in Athens, Greece, by DNA barcoding
ANGELINA METAXATOU, Gediminas Mainelis, Sydonia Manibusan | National Observatory of Athens

AH P3 002 Determination of levoglucosan, PAH and their derivatives in the aerosol from a tropical region affected by biomass burning
CAROLINE SCARAMBONI, Roberta Cerasi Urban, Maria Lúcia Arruda de Moura Campos | Karolinska Institutet

AH P3 003 Development of a new method for assessing the risk of internal exposure to optimize the use of Personal Protective Equipment during nuclear dismantling
PIERRICK AGULLO, Alban Gossard, Gilles Ranchoux, Fabrice Petitot, Emmanuel Porcheron | CEA

AH P3 004 Extremely High Concentration of Arsenic in PM10 in the Vicinity of the Copper Smelter in Eastern Europe-Bor, Serbia
NEMANJA AKSIC, Renata Kovacevic, Visa Tasic, Tatjana Apostolovski-Trujic, Bojan Radovic, Tamara Urosevic, Dejan Tanikic | Mining and Metallurgy Institute

AH P3 005 A study of PM2.5 episodes linked to residential wood burning, using a dense low-cost sensor network
CHARALAMPOS CHATZIDIAKOS, Iasonas Stavroulas, Georgios Grivas, Panagiotis Michalopoulos, Nikolaos Mihalopoulos, Evangelos Gerasopoulos | National Observatory of Athens, Institute for Environmental Research and Sustainable Development

AH P3 006 Air quality in urban parks – inform to prevent
TIAGO FARIA, Ana Catarina Sabino, Ricardo Lopes, Susana Marta Almeida | Centro de Ciências e Tecnologias Nucleares, Instituto Superior Técnico

AH P3 008 Air quality and citizen science measurement campaigns in Helsinki, Finland
KRISTA LUOMA, Andrew Rebeiro-Hargrave, Samu Varjonen, Pak Lun Fung, Tuukka Petäjä | Finnish Meteorological Institute

AH P3 009 Analysis of the effects of occupants and on the indoor air quality modelling
SEOYEON PARK, C. G. Woo | Koreatech

AH P3 010 Levels and sources of particulate Polycyclic Aromatic Hydrocarbons (PAHs) at the Port of Piraeus
KALLIOPI TAVERNARAKI, Irini Tsiodra, Kyriaki Papoutsidaki, Georgios Grivas, Eleni Liakakou, Georgios Kouvarakis, Maria Tsagaraki, Faidra-Aikaterini Kozonaki, Pavlos Zarmpas, Iasonas Stavroulas, Evangelos Gerasopoulos, Nikolaos Mihalopoulos | Environmental Chemical Processes Laboratory, Department of Chemistry, University of Crete, Greece

AH P3 011 Monitoring carcinogenic benzene in indoor air with an aerosol-made device
INES WEBER, Andreas Güntner, Sotiris Pratsinis | ETH Zürich

AH P3 012 Personal exposure to NO2, BC and PM of the participants of Polluscope campaign in the Paris region
Laura Bouillon, VALERIE GROS, Hafsa El Hafyani, Karine Zeitouni, Estephanie Alhajj Moussa, Jean-Marc Naude, Salim Srairi, Arthur Campos Y Sansano, Anne Kauffmann | CNRS LSCE

AH P3 013 Exposure to Airborne Bioaerosols in Public Restroom Environment
SHAMBHAVI SHARMA, Muhammad Jahanzaib, Duckshin Park | Korea Railroad Research Institute

AH P3 014 Air Pollution Impact on Health: How to Simulate Realistic Air Pollution Episodes (Aerosols & Gas) at the Laboratory for Days for Murine Models Exposure
PATRICE COLL, Aline Gratien, Elie Al Marj, Juan Camilo Macias Rodriguez, Emeric Cossart, Mathieu Cazaunau, Edouard Pangui, Antonin Bergé, Thomas Bertin, Cécile Gaimoz, Servanne Chevaillier, Gael Noyalet, Sophie Lanone | LISA UMR CNRS 7583

AH P3 015 High resolution mapping of population exposure to PM2.5 for use in public health assessments
ANASTASIA KAKOURI, Dimitris Karagiannis, Eleni Athanasopoulou, Orestis Speyer, Jennifer Bailey, Evangelos Gerasopoulos | National Observatory of Athens

AH P3 016 Inhaled medicines for optimizing xenobiotic receptor-dependent therapy in lung disease
MATTEO PUCCETTI, Marilena Pariano, Aurelie Schoubben, Maurizio Ricci, Stefano Giovagnoli | University of Perugia

AH P3 017 Emission of BC and trace metals at an urban location impacted by wood burning.
AIKATERINI BOUGIATIOTI, Maximillien Desservettaz, Iasonas Stavroulas, Dimitris Kaskaoutis, Eleni Liakakou, Maria Tsagkaraki, Michel Ramonet, Marc Delmotte, Nikolaos Hatzianastassiou, Nikolaos Mihalopoulos | National Observatory of Athens

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

AH P3 018 DUSTRISK: Spatial distribution of dust and soot across a Cape Verdian island
HONEY DAWN ALAS, Thomas Müller, Jens Voigtländer, Khanneh Wadinga Fomba | Leibniz Institute for Tropospheric Research

AH P3 019 Effectiveness of eco-feedback in improving the IAQ in residential buildings: mitigation of the exposure to the different airborne particle metrics
LUCA STABILE, Elisa Caracci, Laura Canale, Giorgio Buonanno | University of Cassino and Southern Lazio

AH P3 020 High time resolved metals concentration in e-waste recycling plants
GIULIA PAZZI, Fabio Giardi, Giulia Simonetti, Donatella Pomata, Patrizia Di Filippo, Francesca Buiarelli, Roberta Galarini, Simone Lorenzetti, Laura Goracci, Franco Lucarelli | University of Florence

AH P3 021 Differences in the chemical composition of total (TSP) and respirable (PM4) particulate matter in indoor and outdoor air on the example of a beauty salon.
PATRYCJA ROGULA-KOPIEC, Wioletta Rogula-Kozłowska | Institute of Environmental Engineering of the Polish Academy of Sciences

AH P3 022 A Study on Exposure of Respiratory Hazard Factors in Food Service workers
WONSEOK CHA | Korea Workers' Compensation and Welfare

AH P3 025 Measurement of particulate matter and volatile organic compounds in material-extrusion and vat-photopolymerization three-dimensional printing workplaces in Taiwan
Yung-Sheng Chuang, Hsuan-Yu Hsu, Ho-Sheng Wei, Wen-Cheng Gong, Abiyu Kerebo Berekute, Yu-Wun Chen, Li-Wen Liu, Ya-Yuan Hsu, Chuen-Jinn Tsai, KUO-PIN YU | National Yang Ming Chiao Tung University

AH P3 027 Deposited dose of inhaled particles in the human respiratory tract at a suburban environment
Eleftheria Chalvatzaki, Sofia Eirini Chatoutsidou, Ilias Kopanakis, MIHALIS LAZARIDIS | Technical University of Crete

AH P3 030 Citizen science for monitoring air pollution: Challenges and experiences from Torino Living Lab
ORNELLA SALIMBENE, Maria Teresa Baeza Romero, Francesco Pilla, Maria Chiara Zanetti, Andrea Maria Lingua, Deborah Panepinto | Politecnico di Torino

AH P3 031 Comprehensive study of polycyclic aromatic hydrocarbons (PAHs) in ambient and combustion derived aerosols
PRADHI RAJEEV, Pravesh Shukla, Gyanesh Singh, Darpan Das, Tarun Gupta | University of Silesia, Katowice

AH P3 032 How to simulate at the laboratory realistic episodes of multiphasic atmospheric pollution for Health impact studies.
JUAN CAMILO MACIAS RODRIGUEZ, Mathieu Cazaunau, Antonin Bergé, Édouard Pangui, Marion Blayac, Sophie Lanone, Patrice Coll | Laboratoire Interuniversitaire des Systèmes Atmosphériques (LISA)

AH P3 033 Assessment of the aerosol black carbon pollution level in the walking and cycling microenvironments in Vilnius
AGNE MINDERYTE, Steigvilė Byčenkienė | Sri Center for Physical Sciences and Technology

AH P3 034 ExpoLIS: An Air Quality Mobile Low-Cost Sensing System to Monitor Air Quality
CAROLINA CORREIA, Pedro Santana, Vânia Martins, Pedro Mariano, Alexandre Almeida, Marta Almeida | Centro de Ciências e Tecnologias Nucleares, Instituto Superior Técnico, Lisboa, Portugal

AH P3 035 Exposure estimates of PM2.5 using land-use regression with machine learning and microenvironmental exposure models: validation and comparison
Ching-Yi Mou, Chih-Da Wu, YU-CHENG CHEN | National Health Research Institutes

AH P3 036 Respiratory Tract Deposition Dose using Different Assessment Methods
LEIZEL MADUEÑO, Simonas Kecorius, Alfred Wiedensohler, Mira Pöhlker | Leibniz Institute for Tropospheric Research

AH P3 037 Protective fabrics against aerosols: effects of seams and wear
LOÏC WINGERT, Yves Cloutier, Stéphane Hallé, Ludovic Tuduri | IRSST

AH P3 038 High time-resolution measurements of particulate size distribution in controlled fires of construction materials
Wioletta Rogula-Kozłowska, JAN BIHALOWICZ, Adam Krasuski, Małgorzata Majder-Łopatka, Agata Walczak, Tomasz Mach | The Main School of Fire Service

AH P3 039 Emissions from 3D printing processes: a printing systems comparison
Fernanda Oduber, Carlos Blanco-Alegre, Ana Calvo, Amaya Castro, Ana Fernandez-Abia, Maria-Angeles Castro-Sastre, Pablo Rodríguez-González, Joaquín Barreiro, ROBERTO FRAILE | University of Leon

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

AH P3 040 Analysis of concentration of gases and aerosol particles in university classes during the COVID-19 pandemic
Carlos Blanco-Alegre, Ana Calvo, ROBERTO FRAILE | University of Leon

AH P3 041 Variation in the Size of Lung-depositing Particles between Two Cities
LAURA SALO, Antti Hyvärinen, Pasi Jalava, Kimmo Teinilä, Rakesh K. Hooda, Arindam Datta, Sanna Saarikoski, Henna Lintusaari, Teemu Lepistö, Sampsa Martikainen, Antti Rostedt, Ved Prakash Sharma, Md. Hafizur Rahman, Sanjukta Subudhi, Eija Asmi, Jarkko V. Niemi, Heikki Lihavainen, Banwari Lal, Jorma Keskinen, Heino Kuuluvainen, Hilkka Timonen, Topi Rönkkö | Tampere University

AH P3 042 Droplet size distribution, droplet velocities and atomization mechanisms of dental aerosols generated by rotary and piezoelectric dental instruments
EMINE KAYAHAN, Min Wu, Tom van Gerven, Leen Braeken, Lambert Stijven, Constantinus Politis, M. Enis Leblebici | KU Leuven

AH P3 043 Occurrence and in vitro toxicity of organic compounds in urban background PM2.5
ALEXANDER VOGEL, Jonas Wallraff, Florian Ungeheuer, Andrea Dombrowski, Jörg Oehlmann | Goethe-University Frankfurt

AH P3 044 Study of the fine particulate matter burden of disease in Northern Greece
KYRIAKI PSISTAKI, Christina Spitieri, Evangelia Diapouli, Ioannis M. Dokas, Anastasia K. Paschalidou | Democritus University of Thrace

AH P3 045 Development and testing of the Independent Holistic Air-Liquid Aerosol Exposure System (InHALES)
GERHARD STEINER, Pierre Herve, Antoine Sandoz, Shoaib Majeed, Francesco Lucci, Claudius Pak, Arkadiusz Kuczaj, Julia Hoeng | Grimm Aerosol Technik

AH P3 046 Using air quality index to evaluate health benefits and economic benefits of air quality improvements
Hsueh-Hsun Li, ZHI-YING KUNG, Pei-Te Chiueh | National Taiwan University

AH P3 047 Airborne dust chemistry and health risk assessment in the Sistan Basin, southeast Iran
FAIDRA - AIKATERINI KOZONAKI, Reza Dahmardeh Behrooz, Kyriaki Papoutsidaki, Mojtaba Ganjali, Mahsa Tashakor, Dimitris Kaskaoutis, Eleni Liakakou, Nikolaos Mihalopoulos | Department of Chemistry, University of Crete

AH P3 048 Influence of particulate matter in combination with exercise on the development of atherosclerosis in a mouse model
LINNEA TSCHEUSCHNER, A.K Knoefel, A. Haverich, M. Katsimpoulas, Sotiris Korossis | National and Kapodistrian University of Athens

AH P3 049 Correlation of heavy metal-rich environments and antibiotic resistant genes in the air
VIKTORIA AGARWAL, Claudia Schreiner, Benedikt Meier, Jing Wang | ETH Zürich

AH P3 051 Airborne dust chemistry and health risk assessment in the Sistan Basin, southeast Iran
Reza Dahmardeh Behrooz, DIMITRIS KASKAOUTIS, Giorgos Grivas, Abbas Esmaili-Sari, Nader Bahramifar, Nikolaos Mihalopoulos | University of Crete

AH P3 052 Occupational health impact assessment of aerozolized minerals via acellular EPR spectroscopy and in-vitro biological assays combined with Air-Liquid Interface cell exposure
SOUZANA LORENTZOU, Spyros Petrakis, Akrivi Asimakopoulou, Penelope Baltzopoulou, Chrysoula Pagkoura, Daniel Deloglou, Helen Papaioannou | Center for Research & Technology Hellas-CERTH

AH P3 053 Assessing the Pollution Characteristics of PM2.5 -bound Heavy Metals at Bhopal, Central India
DIKSHA HASWANI, Ramya Sunder Raman, Kajal Yadav | Indian Institute of Science Education and Research, Bhopal

POSTER AREA 1 & POSTER AREA 2

AMT P3

Novel and low cost instrumentation

AMT P3 001 Monitoring PM2.5 at the Aegean Islands using low-cost sensors
ANNA MARIA KOTRIKLA, K.M. Fameli, N. Mihalopoulos, G. Grivas, I. Stavroulas, A. Polydoropoulou | University of the Aegean

AMT P3 003 Distribution of radioactive impurities on airborne particles of nanomicron size range
M. Vasyanovich, V. A. Zagaynov, M. Zhukovsky, A. A. Lushnikov, IGOR AGRANOVSKI, V. V. Maksimenko, V. D. Chausov, D. K. Zagaynov | Griffith University

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

AMT P3 004 Development of an in-situ measurement system for the simultaneous characterization of organic compounds in the gas and particulate phase of ambient aerosols
BARBARA GIOCASTRO, Sebastian Braas, Mohammad Saraji-Bozorgzad, Thomas Gröger, Juergen Orasche, Martina Noll-Borchers, Sven Ehlert, Juergen Schnelle-Kreis, Martin Sklorz, Andreas Walte, Rolf Eichelberg, Ralf Zimmermann, Thomas Adam | University of the Bundeswehr Munich

AMT P3 005 Development of a new VOC, IVOC and Aerosol ToF spectrometer
CHRISTOS KALTSONOUDIS, Olga Zografou, Ilias Panagiotopoulos, Alexandros Lekkas, Dimitrios Papanastasiou, Konstantinos Eleftheriadis, Spyros N Pandis | FORTH

AMT P3 006 Measurement of deposition fluxes of atmospheric particles by Eddy Accumulation method: development and validation of an innovative PM sampling system
EMMANUEL KOUAKOU KOUADIO, Yves Brunet, François Gensdarmes, Pierre Roupsard, Amel Kort, Didier Hebert, Magali Beguin Leprieur, Bertrand Pouderoux, Denis Maro, Philippe Laguionie | Institut De Radioprotection et de Sûreté Nucléaire

AMT P3 007 Optimizing chemical ionization detection of compounds impacting the well-being of the environment
FARIBA PARTOVI, Joona Mikkilä, Paxton Juuti Juuti, Jussi Kontro, Jyri Mikkilä, Verner Hemmilä, Juha Kangasluoma, Aleksei Shcherbinin, HJ Jost, Matti Rissanen | University of Tampere

AMT P3 008 A sample delivery system for X-ray photoelectron spectroscopy studies of aerosol particles in-flight at MAX IV Laboratory
CALLE PREGER, Noelle Walsh, Antti Kivimäki, Axel Eriksson, Jenny Rissler | Lund University

AMT P3 009 Cross-device comparability of relative fluorescence spectra for aerosol particles
ERNY NIEDERBERGER, Reto Abt, Philipp Burch, Elias Graf, Simone Lionetti, Joel Salzmann, Pascal Wullschleger, Yanick Zeder | Swisens AG

AMT P3 010 A new dichotomic personal sampler for semi-volatile aerosols named "PPAS" for a better exposure assessment of the workers.
Noredine Rekeb, BENJAMIN SUTTER, Emmanuel Belut, Evelyne Gehin | Institut National de Recherche et de Sécurité

AMT P3 011 Real-time monitoring of dynamic isomer populations with CI-SLIM IMS-MS
Michael Kamrath, MATTHIEU RIVA, Sebastian Gerber, Avram Gold, Jason Surratt, Stephan Graf, Felipe Lopez-Hilfiker | CNRS

AMT P3 012 Evaluation and validation of low cost sensors for aerosol spread monitoring under real conditions
MAXIMILIAN KERNER, Sergiy Antonyuk | Institute of Particle Process Engineering / Technische Universität Kaiserslautern

AMT P3 014 Utilising a co-ordinated and high-density low-cost sensor network for emission classification in Cork City, Ireland
ROSIN BYRNE, Kevin Ryan, Dean S. Venables, John C. Wenger, Stig Hellebust | University College Cork

AMT P3 015 Quality Control and Calibration of a Low-Cost Sensing System: Multivariate Regression and Machine Learning Approaches
CAROLINA CORREIA, Pedro Santana, Vânia Martins, Pedro Mariano, Alexandre Almeida, Marta Almeida | Centro de Ciências e Tecnologias Nucleares, Instituto Superior Técnico, Lisboa, Portugal

AMT P3 016 Development of MEMS type sensors dedicated to real-time measurement of mass concentration in aerosols
Ugur Soysal, Emmanuelle Algré, PIERRE DIDIER, Charles Motzkus, Evelyne Géhin | CERTES - Universite Paris Est Creteil

AMT P3 017 A Low-cost Chamber for Quality Check of Air Quality MICR
NIKOS KALIVITIS, Nikolaos Mihalopoulos, Kostas Karatzas, Dimitris Melas | Department of Chemistry, University of Crete

AMT P3 018 Fundamental size limits of a CPC – How small can a CPC go?
MOHSEN KAZEMIMANESH, Shaamrit Balendra, Julie Pongetti, Molly Haugen, Lee Weller, Adam Boies | University of Cambridge

AMT P3 019 Particulate Matter (PM2.5 and PM10) Measurements using Low Cost Optical Sensors in Nairobi, Kenya
LINDAH KIRIINYA, Moses Njeru, Michael Gatari | University of Nairobi

AMT P3 020 An innovative method for soot deposit quantification using a CO2 sensor: application to fire studies in research facilities
AMEL KORT, Francois-Xavier Ouf, Riadh Lakhmi, Thomas Gelain, Jeanne Malet, Philippe Breuil, Jean-Paul Viricelle | IRSN

AMT P3 021 Modelling of an Optoacoustic Sensor for Black Carbon Measurements
NIKOLAOS KOUSIAS, Ioannis Raptis, Leonidas Ntziachristos | Aristotle University of Thessaloniki

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AMT P3 022 Performance evaluation of lightweight and cost-effective Parallel-Plate Differential Mobility Analyzers
NIKOLETA LEKAKI, Spyros Bezantakos, George Biskos, Anne Maisser | The Cyprus Institute

AMT P3 023 Calibration of low-cost Optical Particle Counters using the Random Forest machine learning algorithm
ROUBINA PAPACONSTANTINOU, Vincent Langat Kipkemoi, Spyros Bezantakos, Neoklis Hadjigeorgiou, Marinos Costi, George Biskos | The Cyprus Institute

AMT P3 024 New open-source software tools to support aerosol particle identification with SwisensPoleno
ERNY NIEDERBERGER, Reto Abt, Philipp Burch, Elias Graf, Yanick Zeder | Swisens AG

AMT P3 025 New method for deriving morphology characteristics of aerosol particles from real-time digital holography measurement
ERNY NIEDERBERGER, Reto Abt, Philipp Burch, Elias Graf, Yanick Zeder | Swisens AG

AMT P3 026 Development of a Sampling Train for Size-selective PM CEMS
SHIBO WANG, Yu-Mei Kuo, Chih-Wei Lin, Sheng-Hsiu Huang, Chih-Chieh Chen | National Taiwan University

AMT P3 028 Direct spectroscopic measurement of the absorption and scattering properties of a single aerosol particle
JAMIE KNIGHT, A. J. Orr-Ewing, M. I. Cotterell | University of Bristol

AMT P3 029 Adhesion forces of radioactive particles measured by an Aerodynamic Method
SAMUEL PEILLON, Thomas Gélain, Mickaël Payet, François Gensdarmes, Christian Grisolia, Olivier Pluchery | Institut de Radioprotection et de Sûreté Nucléaire

AMT P3 030 ATMoS – A novel Measurement system for respiratory aerosols in indoor environments
ISABELL SCHULZ, Felix Hehnen, Michael Lommel, Vera Froese, Katharina Schmidt, Tim Bierewirtz, Ümit Hasirci, Tim Rese, Sebastian Schimek, Oliver Paschereit, Ulrich Kertzscher | Charité

AMT P3 031 Online measurement of highly oxygenated compounds from organic aerosol
ELLA HÄKKINEN, J. Zhao, F. Graeffe, N. Fauré, J. Krechmer, D. Worsnop, H. Timonen, M. Ehn, J. Kangasluoma | Institute for Atmospheric and Earth System Research, University of Helsinki

AMT P3 032 Detection of Key Compounds for Biological Effects in Aerosols using Novel Laser Ionization Technology for Single-Particle Mass Spectrometry
JOHANNES PASSIG, Julian Schade, Sven Ehlert, Robert Irsig, Mohammad Saraji-Bozorgzad, Thomas Kröger-Badge, Andreas Walte, Ralf Zimmermann | Helmholtz Centre Munich and University of Rostock

AMT P3 033 Particle number concentration corrections for Rapid-E
ALBERTO CAZORLA, Alberto Chávez, Soledad Ruiz-Peñuela, Andrea Casans, Paloma Cariñanos, Lucas Alados-Arboledas, Gloria Titos | University of Granada

AMT P3 034 Low-cost optical sensing of bioaerosol pollen in a mature temperate forest under ambient and elevated CO2
SOPHIE MILLS, Rob MacKenzie, Francis Pope | University of Birmingham

AMT P3 035 Culebra Aerosol Research Lidar Project, Description and First Results
JENS LAUTENBACH, Pedrina Terra, Josef Höffner | Arecibo Observatory - University of Central Florida

AMT P3 036 The use of Fabry-Pérot interferometry for single particle analysis
FELIX STOLLBERGER, Michael Gleichweit, Benjamin Lang, Ruth Signorell, Alexander Bergmann | Graz University of Technology

AMT P3 037 Real-time non-invasive measurements of aerosol flow in the laboratory
JULIE PONGETTI, Nick Collings, Jonathan Symonds, Chris Nickolaus | Cambustion Ltd

AMT P3 038 Effects on the mass and mobility of ions from bipolar aerosol neutralizers when passed through conductive silicone tubing
FABIAN SCHMIDT-OTT, Anne Maisser, Dimitris Papanastasiou, George Biskos | The Cyprus Institute

AMT P3 039 Intercomparison between a cavity ring-down optical extinction analyzer and an integrating nephelometer: calibration and field deployment
ELI WINDWER, Ofir Shoshanim, Yinon Rudich | Weizmann Institute of Science

AMT P3 040 Enhancing Separation and Constriction of Ion Mobility Distributions in Drift Tubes at Atmospheric Pressure Using Varying Fields.
Xi Chen, Viraj Gandhi, Xuemeng Chen, Mohsen Latif, Leyan Hua, CARLOS LARRIBA-ANDALUZ | IUPUI

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

AMT P3 041 Personalized health monitoring through accurate acetone detection in breath
INES WEBER, Andreas Güntner, Sotiris Pratsinis | ETH Zürich

AMT P3 042 Nanostructure-based electrochemical biosensor for the direct analysis of oxidative potential in particulate matter
ROSACELESTE ZUMPANO, Lorenzo Massimi, Giulia Simonetti | Sapienza University of Rome

AMT P3 043 Maximizing the output from filter sample analysis: Evolved gas analysis from thermal-optical carbon analysis (TOCA) using photoionization mass spectrometry (PIMS)
Sven Ehlert, Hendryk Czech, Marco Schmidt, Mohammad Saraji-Bozorgzad, Martin Rigler, ANDREAS WALTE, Ralf Zimmermann | Photonion GmbH

AMT P3 044 A new instrument for broad-spectrum optical measurements on atmospheric aerosol
TOMMASO ISOLABELLA, Vera Bernardoni, Marco Brunoldi, Denise Casazza, Silvia Danelli, Paolo Prati, Virginia Vernocchi, Dario Massabò | University of Genoa

AMT P3 045 A Humidity-robust solution for low-cost sensor for air quality measurements
JONAS SJÖBLOM, Shahrooz Forouhan, Oskar Hamidi, Gustav Lindström, Stig Robertsson, Philip Strive, Christoffer Thuve, Patrik Wåhlin | Chalmers University of Technology

AMT P3 046 Low-cost formaldehyde detection in indoor air with handheld aerosol-made gas sensor
MATTEO D'ANDRIA, Jan van den Broek, Sotiris Pratsinis, Andreas Güntner | ETH Zurich

AMT P3 047 Applicability of the low-cost optical particle counter OPC-N3 for microphysical measurements of fog.
KATARZYNA NUROWSKA, Moein Mohammadi, Krzysztof Markowicz, Szymon P. Malinowski | Faculty of Physics, University of Warsaw

AMT P3 049 PMeye: a novel commercial lidar scanner for PM pollution monitoring
Vassilis Kostopoulos, Ioannis Binietoglou, GEORGE GEORGOUSSIS, Ourania Soupiona, Omar Martin, Guillermo Tomassini, Maria Ximena Toledo, Frederico Vagner Dos Santos, Matheus Ataulo Ventoura De Souza, Juan Vicente Pallotta | Raymetrics

AMT P3 050 A pilot study on the electric charge of atmospheric nanoparticles. Correlations with human health and meteorological parameters
Pablo Fdez-Arroyabe, PAVLOS KASSOMENOS, Ciro Luis Salcines Suárez, Ana Santurtún, Tuukka Petäjä, Ilias Petrou, Paraskevi Begou | University of Ioannina

POSTER AREA 2

ATAS P3

Aerosols, clouds, and new particle formation

ATAS P3 001 Elucidating the present-day chemical composition, seasonality and source regions of climate-relevant aerosols across the Arctic land surface
VAIOS MOSCHOS, J Schmale, W Aas, S Becagli, G Calzolai, K Eleftheriadis, C Moffett, J Schnelle-Kreis, M Severi, S Sharma, H Skov, M Vestenius, W Zhang, H Hakola, H Hellén, L Huang, J Jaffrezo, A Massling, J Nøjgaard, T Petäjä, O Popovicheva, R Sheesley, R Traversi, K Yttri, A Prévôt, U Baltensperger, I El Haddad | University of North Carolina System

ATAS P3 002 Annual Cycle in Antarctic Cloud Condensation (CCN) and Ice Nucleating Particle (INP) Concentrations and Properties at Neumayer Station III
SILVIA HENNING, Rolf Weller, Linda Ort, Julia Loftfield, Marcus Schumacher, Heike Wex, Frank Stratmann | TROPOS

ATAS P3 003 Understanding black carbon in the Arctic through extreme events
DOMINIC HESLIN-REES, Radovan Krejci, Peter Tunved, Ilona Riipinen, Annica M. L. Ekman | Stockholm University (ACES)

ATAS P3 004 Seasonal Variations in Black and Organic Carbon Wet and Dry Deposition Rates at SMEAR III Station (60oN), Finland
OUTI MEINANDER, Enna Heikkinen, Minna Aurela, Aki Virkkula, Jonas Svensson, Mika Vestenius, Antti Hyvärinen | Finnish Meteorological Institute

ATAS P3 005 Unprecedented wildfire impact on the Siberian Arctic
OLGA POPOVICHEVA, Marina Chichaeva, Vasilii Kobelev, Hendryk Czech, Erik Schneider, Jurgen Schnelle-Kreis, Christopher P. Rüger, Ralf Zimmermann, Nikos Evangeliou, Nikolay Kasimov | Moscow State University

ATAS P3 008 A potential feedback mechanism of springtime Arctic snow/ice algae, Iodic Acid Aerosols and Arctic clouds
YONGXIANG HU | NASA Langley Research Center

ATAS P3 009 Variability in activation properties in relation to meteorological phenomena
NADĚŽDA ZÍKOVÁ, Petra Pokorná, Pavel Sedlák, Vladimír Ždímal | ICPF CAS CR

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

ATAS P3 010 Modelling the impacts of organic aerosol phase transitions on cloud droplet number concentration in the Boreal Forest
LIINE HEIKKINEN, Claudia Mohr, Rahul Ranjan, Wei Huang, Tuukka Petäjä, Daniel Partridge, Ilona Riipinen | Stockholm University

ATAS P3 011 What can we learn about aerosol-cloud interactions from decadal trends
HAILING JIA, Johannes Quaas | Universität Leipzig

ATAS P3 012 Phytoplankton-Cloud Interactions over the Northeast Atlantic Ocean
KARAM MANSOUR, Matteo Rinaldi, Jana Preißler, Stefano Decesari, Darius Ceburnis, Jurgita Ovadnevaite, Marco Paglione, Maria Cristina Facchini, Colin O'Dowd | CNR-ISAC

ATAS P3 013 ACTRIS-shaping the future of atmospheric research
MIKHAIL PARAMONOV, Niku Kivekäs, Paolo Laj, Rosa Maria Petracca Altieri, Giuseppe Gargano, Eija Juurola | Finnish Meteorological Institute

ATAS P3 014 Cloud activation properties of urban atmospheric aerosol particles from different sources
WANDA THÉN, Imre Salma | Eötvös Loránd University

ATAS P3 015 On the evolution of sub- and super-saturated water uptake of secondary organic aerosol in chamber experiments from mixed precursors
YU WANG, Aristeidis Voliotis, Dawei Hu, Yunqi Shao, Mao Du, Ying Chen, Judith Kleinheins, Claudia Marcolli, Rami Alfarra, Gordon MicFiggans | ETH Zurich

ATAS P3 016 Influences of semi-volatiles co-condensation on aerosol hygroscopicity and cloud condensation nuclei (CCN) activation in Asian megacities
YU WANG, David Neubauer, Ying Chen, Pengfei Liu, Claudia Marcolli, Ulrike Lohmann | ETH Zurich

ATAS P3 017 Aerosol-Cloud Interaction studies during the CALISHTO-HELMOS Campaign using a synergy of remote sensing and in situ techniques
ROMANOS FOSKINIS, Alexandros Papayannis, Athanasios Nenes, Konstantinos Eleftheriadis, Stergios Vratolis, Prodromos Fetfatzis, Maria Gini, Christina Spitieri, Elina Diapouli, Olga Zografou, Konstantinos Granakis, Ghislain Motos, Alexis Berne, Anne-Claire Marie Billault-Roux, Mika Komppula, Ville Vakkari, Christina Anna Papanikolaou, Dimitra Anagnou, Ourania Soupiona, Panagiotis Kokkalis, Maria Mylonaki, Marilena Gidarakou, Christina Kaltsonoudis, Aggeliki Moutafidou, Andreas Aktypis, Franziska Vogel, O. Möhler, Spyros Pandis | NTUA/EPFL

ATAS P3 018 Association among air pollutants, black carbon and White Sky Albedo at Hindukush Karakorum and Himalaya Glaciers
ZAINAB IRFAN, Zulfiqar Ali, Usman Ahmad, Rida Ahmad | University of the Punjab

ATAS P3 020 A year of ice-nucleating particle concentration measurements on the Greenland Ice Sheet
BETHANY WYLD, Sarah Barr, Heather Guy, Sebastian Sikora, Ryan Neely, Benjamin Murray | University of Leeds

ATAS P3 021 Global relevance of Marine Organic Aerosols and Dust Minerals as principal contributors to Ice Nucleating Particles formation
MARIOS CHATZIPARASCHOS, Nikos Daskalakis, Stelios Myriokefalitakis , Nikos Kalivitis, Maria Kanakidou | ECPL

ATAS P3 022 Ice nucleating abilities of oceanic waters and marine aerosol particles from the eastern Pacific Ocean and the Gulf of Mexico
MARÍA FERNANDA CÓRDOBA BENAVIDES, Graciela B. Raga, Rachel Chang, Ernesto García, Aramis Olivos, Guadalupe Campos, M. de los Ángeles Horta, Daniela Leal, Luis A. Ladino | Universidad Nacional Autónoma De México

ATAS P3 023 Long-Term Measurements of Ice Nucleating Particles at the Sonnblick Observatory
Pia Bogert, KRISTINA HÖHLER, Johannes Graf, Larissa Lacher, Christian Maier, Elke Ludewig, Ottmar Möhler | Karlsruhe Institute of Technology (KIT)

ATAS P3 024 Ice Nucleating Abilities of Size-segregated Volcanic Soil and Ash Particles from Four Different Latin American Volcanoes
LUIS A. LADINO, Karla I. Vivar, Aldo Rodriguez, Giovanni Carabali, Teresa Pi Puig, Diana L. Pereira, Fernanda Córdoba, Graciela B. Raga, Abril Rodriguez, Irma Gavilán | Universidad Nacional Autónoma de México

ATAS P3 025 Simulations of new particle formation and growth processes in the Eastern Mediterranean using the ARCA model
EVANGELIA TZITZIKALAKI, Nikos Kalivitis, Angelos Gouvousis, Petri Clusius, Michael Boy, Maria Kanakidou | University of Crete

ATAS P3 026 Biogenic volatile organic compound emission profiles of rapeseed leaf litter and soil and its secondary organic aerosol formation potential
LETIZIA ABIS, Fangming Zao, Julien Kammer, Benjamin Loubet, Andreas Held, Raluca Ciuraru, Christian George | TU-Berlin

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

ATAS P3 027 Significant spatial gradients in new particle formation frequency in Greece during summer
ANDREAS AKTYPIS, Christos Kaltsonoudis, Angeliki Matrali, Christina Vasilakopoulou, Nikolaos Mihalopoulos, Panagiotis Kalkavouras, Aikaterini Bougiatioti, Nikolaos Kalivitis, Kostas Eleftheriadis, Stergios Vratolis, Maria Gini, Athanasios Kouras, Michalis Lazaridis, Sofia Eirini Chatoutsidou, Athanasios Nenes, Spyros Pandis | University of Patras

ATAS P3 028 New particle formation and growth during summer in an urban environment: a dual chamber study
ANDREAS AKTYPIS, Spiro Jorga, Kalliopi Florou, David Patoulias, Spyros Pandis | University of Patras

ATAS P3 029 Long-term observations of new particle formation at a rural site in Cyprus
RIMA BAALBAKI, Michael Pikridas, Jean Sciare, Tuukka Petäjä, Markku Kulmala, Tuija Jokinen | University of Helsinki

ATAS P3 030 Assessing the formation of new volatile Particulate Matter in an atmospheric chamber depending on fuel composition: a step toward understanding nucleation mechanisms in aircraft engine emissions
RAFAËL BARRELLON-VERNAY, Ismael Ortega, David Delhaye, Antoine Berthier, Dmitrii Egorov, Tirthankar Mitra, Mathieu Cazaunau, Antonin Bergé, Etienne Pangui, Alexandre Albinet, Jean-Eudes Petit, Atinderpal Singh, Veronique Riffault, Joël Brito, Antoine Farah, Frédéric Ser, Jean François Doussin, Cristian Focsa |ONERA

ATAS P3 031 The influence of volcano activity on new particle formation over the Andes
FEDERICO BIANCHI, Diego Aliaga, Qiaozhi Zha, Liine Heikkinen, Marcos Andrade, Markku Kulmala, Claudia Mohr | University of Helsinki

ATAS P3 032 Does mineral dust influence new particle formation events?
JUAN ANDRES CASQUERO-VERA, D. Pérez-Ramírez, H. Lyamani, L. Dada, S. Hakala, T. Hussein, P. Paasonen, K. Lehtipalo, F. Rejano, A. Casans, G. Titos, N. Pérez, S. Rodríguez, N. Kalivitis, A. Hyvärinen, A. Alastuey, F.J. Olmo, T. Petäja, L. Alados-Arboledas | University of Granada

ATAS P3 033 Retrieving time- and size-resolved condensational growth rates in the polluted urban atmosphere
CHENJUAN DENG, Lukas Pichelstorfer, Petri Clusius, Michael Boy, Jingkun Jiang | Tsinghua University

ATAS P3 034 Atmospheric Nucleation Potential Model for Complex Mixtures
COTY JEN, Jack Johnson, Dominic Casalnuovo, Darren Cheng | Carnegie Mellon University

ATAS P3 035 Terpene emissions from boreal wetlands can initiate stronger atmospheric new particle formation than boreal forests
HEIKKI JUNNINEN, Lauri Ahonen, Federico Bianchi, Lauriane Quelever, Simon Schallhart, Lubna Dada, Henna Elina Manninen, Katri Leino, Janne Lampilahti, Stephany Buenrosto Mazon, Pekka Randala, Meri Räty, Jenni Kontkanen, Sara Negri, Diego Aliaga, Olga Garmash, Pavel Alekseychik, Helina Lipp, Kalju Tamme, Janne Levula, Mikko Sipilä, Mikael Ehn, Douglas Worsnop, Sergej Zilitinkevich, Ivan Mammarella, Janne Rinne, Timo Vesala, Tuukka Petäjä, Veli-Matti Kerminen, Markku Kulmala | University of Tartu

ATAS P3 038 New particle formation (NPF) characteristics and prediction in various atmospheric environments
HAEBUM LEE, Joonwoo Kim, Jiyeon Park, Young-Jun Yoon, Kihong Park | Gwangju Institute of Science and Technology (GIST)

ATAS P3 039 A flexible tool to incorporate particle formation rates from molecular to large-scale models
Daniel Yazgi, TINJA OLENIUS | Swedish Meteorological and Hydrological Institute (SMHI)

ATAS P3 040 Occurrence of new aerosol particle formation and growth events
IMRE SALMA, Wanda Thén, Máté Vörösmarty, Tamás Weidinger, Paasi Aalto, Tuukka Petäjä, Veli-Matti Kerminen, Markku Kulmala | Eötvös Loránd University

ATAS P3 041 Atmospheric new particle formation at a unique marine lake area in Rogoznica in comparison with urban area events in Zagreb, Croatia
Kristijan Vidović, IRENA GRGIĆ, Samo Hočevar, Asta Gregorič, Balint Alfoldy, Irena Ciglenečki-Jušić | National Institute of Chemistry

ATAS P3 042 Conditions for nanoparticle concentration increase in the atmosphere of hemiboreal forest
HELINA LIPP, Kaupo Komsaare, Luis Barreira, Siegfried Schobesberger, Eero Talts, Ülo Niinemets, Steffen M. Noe, Joel Kuusk, Kalju Tamme, Iida Pullinen, Arttu Ylisirniö, Urmas Hõrrak, Juha Kangasluoma, Heikki Junninen | University of Tartu

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ATAS P3 044 Cyanobacterial bloom in the Baltic Sea region –Can it trigger new particle formation in a semi urban site?
ROSELINE THAKUR, Lubna Dada, Lisa Beck, Lauriane L.J Quéléver, Tommy Chan, Marjan Marbouti, Xu-Cheng He, Carlton Xavier, Juha Sulo, Jaane Lampilahti, Markus Lampimäki, Yee Jun Tham, Nina Sarnela, Katrianne Lehtipalo, Alf Norkko, Markku Kulmala, Mikko Sipilä, Tuija Jokinen | Institute for Atmospheric and Earth System Research, University of Helsinki

ATAS P3 045 Aerosol size distribution, hygroscopicity and cloud formation from fall to spring at an Arctic Mountain site
GHISLAIN MOTOS, Paraskevi Georgakaki, Jörg Wieder, Gabriel Freitas, Radovan Krejci, Claudia Mohr, Paul Zieger, Wenche Aas, Ulrike Lohmann, Athanasios Nenes | EPFL

ATAS P3 046 Ice-nucleating particle measurements during the CALISHTO campaign at Mt. Helmos
OTTMAR MÖHLER, Franziska Vogel, P. Fetfatzis, M. Gini, O. Zografou, R. Foskinis, Kristina Höhler, Larissa Lacher, Athanasios Nenes, Kostas Eleftheriadis | Karlsruhe Institute of Technology

ATAS P3 047 Chemical Composition Of Ambient Clusters Contributing To The Nighttime Clustering Events In A Wetland, Southern Finland
WEI HUANG, Olga Garmash, Katrianne Lehtipalo, Janne Lampilahti, Heikki Junninen, Lei Yao, Sara Blichner, Diego Aliaga, Markku Kulmala, Federico Bianchi | University of Helsinki

ATAS P3 048 Overprediction of particle formation from strong nucleation agents
TINJA OLENIUS, Pontus Roldin | Swedish Meteorological and Hydrological Institute (SMHI)

ATAS P3 049 Connecting new particle formation and aerosol-cloud interactions in boreal environment
TUUKKA PETÄJÄ, Ksenia Tabakova, Antti Manninen, Ekaterina Ezhova, Ewan O'Connor, Dmitri Moisseev, Victoria A. Sinclair, John Backman, Janne Levula, Krista Luoma, Aki Virkkula, Mikhail Paramonov, Meri Räty, Mikko Äijälä, Liine Heikkinen, Mikael Ehn, Mikko Sipilä, Taina Yli-Juuti, Annele Virtanen, Michael Ritsche, Nicki Hickmon, Guy Pulik, Daniel Rosenfeld, Douglas R. Worsnop, Jaana Bäck, Markku Kulmala, Veli-Matti Kerminen | University of Helsinki

ATAS P3 051 Ground based observations of low-level clouds at a Finnish subarctic station.
KONSTANTINOS DOULGERIS, David Brus, Ville Vakkari | Finnish Meteorological Institute

ATAS P3 052 Long-term variation of aerosol CCN activity and new particle formation events observed in the Noto peninsula, Japan
ATSUSHI MATSUKI, Seiji Kubota, Hiroyuki Hyono, Nanako Hayashi, Yoko Iwamoto, Hiroshi Tsurumaru, Alessia Nicosia, Ayumi Iwata, Shungo Kato, Yasuhiro Sadanaga, Naoki Kaneyasu | Kanazawa University

ATAS P3 053 Sensitivity of Arctic clouds to ice formation processes in NorESM2 climate model
GEORGIA SOTIROPOULOU, Anna Lewinschal, Annica Ekman, Athanasios Nenes | FORTH

ATAS P3 054 Evaluation of the New Dynamic Chamber for Adiabatic Cloud Simulation
Ottmar Möhler, ZHAOZE DENG, Nsikanabasi Silas Umo, Robert Wagner | Karlsruhe Institute of Technology

ATAS P3 056 Modelling Atmospheric Aerosols in the Arctic – Impact of wet removal
WANMIN GONG, Roya Ghahreman, Stephen Beagley | Environment and Climate Change Canada

ATAS P3 057 Improved understanding of effect of clouds and precipitation on aerosols in a boreal forest environment in GCMs
SINI ISOKÄÄNTÄ, Paul Kim, Zak Kipling, João Teixeira, Emanuele Tovazzi, Thomas Kühn, Harri Kokkola, Alistair Sellar, Annele Virtanen, Daniel Partridge | University of Eastern Finland

ATAS P3 058 Modelling CCN and cloud droplet number concentration (CDNC) in the boreal forest using long-term measurement data
RAHUL RANJAN, Liine Heikkinen , Lauri Ahonen, Dmitri Moisseev, Tuukka Petäjä, Annica Ekman, Daniel Partridge, Ilona Rippinen | Stockholm University

ATAS P3 059 Introducing the Emissions of Primary Biological Aerosol Particles in GISS-E2.1 Earth System Model
MAHER SAHYOUN, Kostas Tsigaridis, Tina Santl-Temkiv, Barbara Ervens, Ulas Im | Department of Environmental Science, Aarhus University

ATAS P3 060 Simulating cloud effects on aerosols and chemistry in the Korean peninsula with the new UM-chem configuration of the Met Office Unified Model
HAMISH GORDON, H. Ding, P. Ghosh, P. R. Field, A. A. Hill, K. S. Carslaw | Carnegie Mellon University

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ATAS P3 061 Parameterization of Atmospheric Ultrafine Aerosol Formation Rates in two Contrasting Environments: A Boreal Forest and a Megacity
XINYANG LI, Lubna Dada, Chao Yan, Nina Sarnela, Pauli Paasonen, Risto Makkonen, Markku Kulmala, Tuomo Nieminen | INAR/University of Helsinki

ATAS P3 062 Characterization of New Particle Formation and Subsequent Growth in South Korea
YOONKYEONG HA, Jeongbeen Kim, Soodong Lee, Kyungil Cho, Mijung Song, Ji Yi Lee, Kyoung-Soon Jang, Kwangyul Lee, Junyoung Ahn, Changhyuk Kim | Pusan National University

ATAS P3 064 Studying aerosol-fog interactions in the Italian Po Valley during FAIRARI 2021/22
ALMUTH NEUBERGER, Fredrik Mattsson, Yvette Gramlich, David Hadden, Sophie L. Haslett, Anilbhai Patel, Sarah Steimer, Stefano Decesari, Marco Paglione, Matteo Rinaldi, Claudia Mohr, Ilona Riipinen, Paul Zieger | Stockholm University

ATAS P3 065 The CALISHTO-HELMOS Campaign on Aerosol-Cloud Interactions. An overview on aerosol microphysics, composition and origin by means of remote sensing and in situ observations
Maria Gini, Prodromos Fetfatzis, Olga Zografou, Konstantinos Granakis, Christina Spitieri, Vassiliki Vasilatou, Evangelia Diapouli, Romanos Foskinis, Ghislain Motos, Alexis Berne, Anne-Claire Billault-Roux, Christos Kaltsonoudis, Athanasia Moutafidou , Andreas Aktypis , Spyros N. Pandis, Mika Komppula, Ville Vakkari, Christianna Papanikolaou, Dimitra Anagnou, Ourania Soupiona, Panagiotis Kokkalis, Maria Mylonaki, Marilena Gidarakou , Franziska Vogel, Ottmar Möhler, Alexandros Papayannis, Athanasios Nenes, KONSTANTINOS ELEFTHERIADIS | NCSR Demokritos

ATAS P3 066 Ice nucleating properties of aircraft turbine engine soot particles with respect to cirrus clouds formations
Baptiste Testa, Lukas Durdina, Jacinta Edebeli, Curdin Spirig, Julien Anet, ZAMIN KANJI | ETH Zurich

ATAS P3 067 Seasonality of ultrafine particles (UFPs) and particle number size distributions (PNSDs) in southeast Asia urban environments
TSE-LUN CHEN, Ta-Chih Hsiao | National Taiwan University

POSTER AREA 2 & POSTER AREA 3

ATAS P4

Atmospheric aerosol transport and modelling

ATAS P4 001 Intra- and inter-city variability of PM2.5 concentrations over Greece
KONSTANTINOS DIMITRIOU, Iasonas Stavroulas, Georgios Grivas, Charalampos Chatzidiakos, Georgios Kosmopoulos, Andreas Kazantzidis, Konstantinos Kourtidis, Nikolaos Hatzianastassiou, Nikolaos Mihalopoulos, Evangelos Gerasopoulos | National Observatory of Athens

ATAS P4 002 A brief overview of the Chemistry-Aerosol Mediterranean Experiment (ChArMEx) legacy
FRANÇOIS DULAC | CEA/LSCE

ATAS P4 003 Wind tunnel experiments on vertical exchange of microplastic particles
CHRISTOPH GEORGI, Eike Esders, Wolfgang Babel, Christoph Thomas, Andreas Held | Technical University of Berlin

ATAS P4 004 Sensitivity analysis of the dust generation algorithm in ADAM3 by incorporating surface wetness effects
MISUN KANG, Yunkyu Lim, Jinwon Kim | National Institute of Meteorological Sciences

ATAS P4 005 Modelling the evaporation and condensation of a ship exhaust emission aerosol using genetic optimization algorithm
OSKARI KANGASNIEMI, Pauli Simonen, Joni Kalliokoski, Åsa Hallquist, Jana Moldanova, Barbara D'Anna, Grazia Lanzafame, Brice Temime-Roussel, Johan Mellqvist, Vladimir Conde, Jukka-Pekka Jalkanen, Alexandre Armengaud, Matthias Karl, Leonidas Ntziachristos, Jorma Keskinen, Miikka Dal Maso | Tampere University

ATAS P4 006 Development and assessment of ADAM3 Ensemble Prediction System
MIGYEONG KIM, Jeonghoon Cho | National Institute of Meteorological Sciences

ATAS P4 007 Fire Weather Index's Predictive Power of Aerosol Pollution over Greece
ANASTASIOS ROVITHAKIS, Apostolos Voulgarakis, Manolis Grillakis, Mihalis Lazaridis, Sofia Eirini Chatoutsidou | Technical University of Crete

ATAS P4 008 Lagrangian evaluation of marine aerosols sources in an Earth System Model
EMANUELE TOVAZZI, Jim Haywood, Alistair Sellar, Paul Kim, Dalvi Mohit, João Teixeira, Daniel Partridge | Exeter University

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ATAS P4 009 Comparison of BTEX simulation using GEOS-Chem and observations at Beijing and Seoul in winter and summer 2021
EUNLAK CHOI, Hyung-min Lee, Yong pyo Kim, Ji Yi Lee, Zhijun Wu | Ewha Womans University

ATAS P4 010 Formation and transport of biogenic aerosols: novel insights from chemical transport model applications over the Finnish boreal forest and the Himalayan range
GIANCARLO CIARELLI, Sara Tahvonen, Arineh Cholakian, Federico Bianchi | INAR

ATAS P4 012 Analysing the aerosol radiative effects at Granada during 2008-2018
Ismael Lozano, Guadalupe Sánchez-Hernández, Juan Luis Guerrero-Rascado, Inmaculada Alados, INMACULADA FOYO MORENO | University of Granada

ATAS P4 013 Atmospheric characterization of the Cumbre Vieja's eruption (La Palma, 2021) by satellite and ground-based remote sensing
J. Muñiz-Rosado, INMACULADA FOYO MORENO, J.L. Guerrero-Rascado | University of Granada

ATAS P4 014 Regional temperature potentials of East Asian and European anthropogenic organic carbon emissions: impacts of mixing state
ULAS IM, Kostas Tsigaridis, Annica M.L. Ekman, Hans-Christen Hansson | Aarhus University

ATAS P4 015 The effect of large anthropogenic emissions in Mongolia missing from current models
HYUNG-MIN LEE, Eunlak Choi, Yong Pyo Kim, Barhasragchaa Baldorj, Amgalan Natsagdorj, Zhijun Wu, Kwangyul Lee, Hye-Jung Shin, Atsushi Matsuki, Chang Hoon Jung, Ji Yi Lee | Ewha Womans University

ATAS P4 016 Large-eddy simulations on the role of nitric acid and ammonia in new particle growth in Beijing
XIAOYU LI, Jenni Kontkanen, Pauli Paasonen, Chao Yan, Dian Ding, Jing Cai, Yifan Wen, Leena Järvi | Ms. Xiaoyu Li, Doctoral Researcher,

ATAS P4 017 Saharan dust transport and deposition in Finland on 23 February 2021
OUTI MEINANDER, Ana Alvarez Piedehierro, Rostislav Kouznetsov, Laura Rontu, Andre Welti, Anu Kaakinen, Enna Heikkinen, Ari Laaksonen | Finnish Meteorological Institute

ATAS P4 018 High-resolution mapping of aerosol species over a SE Mediterranean urban area
STYLIANOS MYRIOKEFALITAKIS, Eleni Athanasopoulou, Dimitris Karagiannis, Anastasia Kakouri, Eleni Liakakou, Georgios Grivas, Aikaterini Bougiatioti, Evangelos Gerasopoulos | National Observatory of Athens

ATAS P4 019 Wandering Dusts. Using Machine Learning methods to disentangle curious reasons for atmospheric mineral dust generation and transport, and its impact on climate and environment
TRISH NOWAK, Jim M Haywood, Benno I Simmons, Andy T Augousti | University of Exeter

ATAS P4 020 Bioavailibility and fate of anhydrosugars issued from biomass burning aerosols in seawater
Juan-Miguel González-Sánchez, CHRISTOS PANAGIOTOPOULOS, Candice Antich, Benjamin Misson, France Van Wambeke | Mediterranean Institute of Oceanography

ATAS P4 021 Comprehensive analysis of observational data and UKESM1 simulations of the 2019 Raikoke eruption
ALICE WELLS, James Haywood, Andy Jones, Martin Osborne, Lilly Damany-Pearce, Daniel Partridge | University of Exeter

ATAS P4 022 Identification of PM sources using the Chemical Transport Model System COSMO-MUSCAT within the framework of the cooperative project 'TRACE'
Shubhi Arora, Laurent Poulain, Birgit Heese, Radek Lhotka, Petra Pokorná, Petr Vodička, Jaroslav Schwarz, HANNA WIEDENHAUS | Leibniz Institute for Tropospheric Research

ATAS P4 023 Monitoring the spatial aerosol distribution of Vulcanic Ashes and Sahara Dust on La Palma Island
Ann-Kathrin Goßmann, Frederik Weis, Maximilian Weiß, Agnès Sauleda Brossa, Jon Vilches Sarasate, Víctor M. Gallo Acosta, HENRIK HOF | Palas GmbH

ATAS P4 024 Aerosol radiative forcing around the Mediterranean
RAJAE MEZIANE, Mohammed Diouri, Abdelmoula Ben-Tayeb, Ouassila Salhi | Faculty of Sciences Oujda

ATAS P4 027 Vertical distribution of atmospheric aerosol precursors of technogenic origin in conditions of surface-based thermal inversions
TERJE TAMMEKIVI, Raido Kiss, Heikki Junninen, Marko Kaasik, Urmas Hõrrak, Steffen Manfred Noe | University of Tartu

ATAS P4 028 New paradigm for Arctic aerosols? Biomass Burning summer events "change the rules"
Arindam Mazmudar, Luca Ferrero, Paulina Pakszys, TYMON ZIELINSKI | IOPAN

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ATAS P4 029 Evidence of oriented smoke particles in the atmosphere over Cyprus
MARIA KEZOUDI, Constantina Rousogenous, Alkistis Papetta, Franco Marenco, Christos Keleshis, Frank G. Wienhold, Michalis Vrekoussis, Thorsten Warneke, Justus Notholt, Jean Sciare | The Cyprus Institute

ATAS P4 030 Semi-explicit Monoterpene - SOA chemical mechanisms for regional-scale modeling
ZHIZHAO WANG, Florian Couvidat, Karine Sartelet | CEREA, ECOLE DES PONTS PARISTECH

ATAS P4 031 Extreme Saharan dust event over Athens, Greece (March 2022): aerosol optical properties and radiative impact
CHRISTINA-ANNA PAPANIKOLAOU, Alexandros Papayannis, Dimitra Anagnou, Ourania Soupiona, Panagiotis Kokkalis, Maria Mylonaki, Maria-Eleni Gidarakou, Romanos Foskinis | National Technical University of Athens

ATAS P4 032 CCN Climatology of the Great Barrier Reef
HAYDN TROUNCE, Luke Cravigan, Zoran Ristovski, Joel Alroe, Ruhi Humphries, Daniel Harrison, Eva Horchler, Eva Horchler | Queensland University of Technology

ATAS P4 033 Extraordinary Saharan dust outbreak in mainland Spain (March 2022): Impact on PM10 levels
Lucrecia Bilé Osa-Akara, Ana Isabel Calvo, Cátia Gonçalves, Carlos Blanco-Alegre, ROBERTO FRAILE | University of Leon

ATAS P4 034 Events of biomass burning affecting mainland Spain from 2005 to 2020
Arturo Martínez, Estela D. Vicente, Ana Isabel Calvo, Carlos Blanco-Alegre, ROBERTO FRAILE | University of Leon

ATAS P4 035 Eruption of the Cumbre Vieja volcano in La Palma (Spain): impact on air quality
Daniel Alonso, Cátia Gonçalves, Ana Isabel Calvo, ROBERTO FRAILE | University of Leon

ATAS P4 036 Sensitivity to chemical mechanisms on the WRF-Chem generated aerosol fields over India
SANDEEP DEVALIYA, Ramya Sunder Raman, Krishna Kedia, Amit Kesarkar, Jyoti Bhate, Vikas Singh, Kaushik Muduchuru, Arushi Sharma, Chandra Venkataraman | Indian Institute of Science Education and Research Bhopal, India

ATAS P4 037 Observational Evidence for Long-Range Transport of Bioaerosols by African Dust
Ana Isabel Calvo, Bighnaraj Serangi, David Topping, Darrel Baumgardner, D. Hagen, ROBERTO FRAILE, Cátia Gonçalves, Estela Vicente, Carlos Blanco-Alegre, Olga Mayol-Bracero | University of Leon

POSTER AREA 3

ATAS P5

Atmospheric aerosol properties and characterization

ATAS P5 001 Brown-black carbon aerosol ambient sources, absorption properties and optical interactions
VAIOS MOSCHOS, Martin Gysel-Beer, R. L. Modini, J. Corbin, D. Massabò, C. Costa, S. Danelli, A. Vlachou, K. R. Daellenbach, S. Szidat, P. Prati, A. S. H. Prévôt, U. Baltensperger, I. El Haddad | University of North Carolina System

ATAS P5 002 Cupressaceae pollen monitoring by a combination of remote sensing and in-situ techniques at a mid-latitude ACTRIS station
Juan Luis Guerrero-Rascado, Maria Joao Costa, Célia Antunes, Ana Galveias, Ana Costa, Paloma Cariñanos, Daniele Bortoli, Flávio Couto, Vanda Salgueiro, JESÚS ABRIL-GAGO, Inmaculada Foyo-Moreno | University of Granada

ATAS P5 003 Sensitivity assessment of the extinction-to-number-concentration factors derived from high-mountain and urban AERONET stations
JUAN ANTONIO BRAVO-ARANDA, María José Granados-Muñoz, Diego Bermejo-Pantaleón, Ángel Saucedo, Francisco Navas-Guzmán, Jesús Abril-Gago, Juan Luis Guerraro-Rascado, Lucas Alados-Arboledas | University of Granada

ATAS P5 004 UK Black Carbon Network: Comparison campaign between AE22 and AE33 aethalometer models in London
KRZYSZTOF CIUPEK, David Butterfield, David C. Green, Anja Tremper, Max Priestman, Martin Rigler, Asta Gregorič, Anna Font, Andrew S. Brown, Gary W. Fuller | National Physical Laboratory

ATAS P5 005 Two decades of AERONET measurements in Continental Portugal
MARIA JOAO COSTA, Vanda Salgueiro, Daniele Bortoli, Samuel Bárias, Ana Maria Silva | Universidade De Évora

ATAS P5 006 Spatial distribution of nitrogen dioxide at agricultural sites by using Differential Optical Absorption Spectroscopy (DOAS) technique
TAEWOONG GONG, Joonwoo Kim, Kihong Park | Gwangju Institute of Science and Technology (GIST)

ATAS P5 007 Mobile measurements of black carbon along a major urban road using a multi-wavelength micro-aethalometer
ANDREAS HELD, Aleksandra Jachymek | TU Berlin

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ATAS P5 008 Planetary boundary layer and long-range transport effect on black carbon concentration under different meteorological conditions
KAJAL JULAHA, Naděžda Zíková, Saliou MBENGUE, Vladimír Ždímal | Institute of Chemical Process Fundamentals, Czech Academy of Sciences

ATAS P5 009 BIOSURE-Importance of long-range transport of BIOmass burning emissions to local Smog events in Urban Environments
KAMILE KANDROTAITE, A. Minderytė, J. Pauraitė, L. Davulienė, D. Valiulis, F. Mirza-Montoro, P. Poczta, R. Fortuna, E. Ugboma, L. Janicka, D. Szczepanik, I. S. Stachlewska, S. Byčenkienė | Center for Physical Sciences and Technology

ATAS P5 010 Impact of agglomerate mobility and primary particle diameters on soot light scattering angular distribution
PATRIZIA CREPALDI, Georgios Kelesidis, Sotiris Pratsinis | ETH Zurich

ATAS P5 011 Temporal and spatial variability of black carbon levels in different environments in Greece with emphasis on the role of residential biomass burning
ELENI LIAKAKOU, Dimitrios Georgios Kaskaoutis, Iasonas Stavroulas, Georgios Grivas, Aikaterini Bougiatioti, Nikolaos Kalivitis, Georgios Kouvarakis, Maria Tsagkaraki, Maria Gavrouzou, Nikolaos Hatzianastassiou, Konstantinos Michailidis, Dimitrios Balis, Evangelos Gerasopoulos, Nikolaos Mihalopoulos | National Observatory of Athens

ATAS P5 012 Characterization of Cumbre Vieja volcanic plumes detected over the Iberian Peninsula using GRASP algorithm retrievals from a set of remote sensing instrumentation
VANDA SALGUEIRO, Juan Luis Guerrero-Rascado, Maria João Costa, Roberto Román, Alberto Cazorla, Antonio Serrano, Marco Pandolfi, Francisco Molero, Ruben Barragán, Michael Sicard, Carmen Córdoba-Jabonero, Daniele Bortoli, Adolfo Comerón, Flavio Tiago Couto, Daniel Camilo Fortunato dos Santos Oliveira, Ramiro González, Cristina Gíl-Díaz, Constantino Muñoz-Porcar, Daniel Pérez-Ramírez, Alexandro Rodríguez-Gómez, Marcos Herreras-Giralda, Jesús Abril-Gago, M.-Á. López-Cayuela, C.V. Carvajal-Pérez, Africa Barreto, Lucas Alados-Arboledas | Universidade De Évora

ATAS P5 013 Predicted Concentrations and Optical Properties of Brown Carbon from Biomass Burning over Europe
KSAKOUSTI SKYLLAKOU, Marios-Bruno Korras-Carraca, Dimitrios Manetas, Christos Matsoukas, Nikolaos Hatzianastassiou, Spyros Pandis, Athanasios Nenes | ICE-HT/FORTH

ATAS P5 014 Optical properties of desert dust and its mixtures over Warsaw, Poland
DOMINIKA SZCZEPANIK, Lucja Janicka, Wojciech Kumala, Dietrich Althausen, Giuseppe D'Amico, Iwona S. Stachlewska | University of Warsaw

ATAS P5 015 Mixing state and size distribution of refractory black aerosols at central European background site Melpitz
YIFAN YANG, Laurent Poulain, Jens Voigtländer, Samira Atabakhsh, Mira Pöhler, Thomas Müller | Leibniz-Institute for Tropospheric Research

ATAS P5 016 Investigation of Saharan dust plumes in Western Europe by remote Sensing, in situ measurement, and transport modelling
HENGHENG ZHANG, Frank Wagner, Feng Jiang, Gholam Ali Hoshyaripour, Heike Vogel, Harald Saathoff | IMK-AAF

ATAS P5 017 The real-time measurements of mineral dust mass concentration and light absorption in central Los Angeles
Ramin Tohidi, Vahid Jalali Farahani, Constantinos Sioutas, ABDULMALIK ALTUWAYJIRI | University of Southern California

ATAS P5 019 Impact of aerosols and clouds on solar energy production over India
Umesh Dumka, PANAGIOTIS KOSMOPOULOS | National Observatory of Athens

ATAS P5 020 Spatiotemporal characteristics of Dust Aerosol Episodes over Asia and Caspian Sea based on contemporary climatological satellite data
Petros Belimezis, Nikolaos Hatzianastassiou, MARIA GAVROUZOU, Marios-Bruno Korras-Carraca | University of Ioannina

ATAS P5 021 Measurements of the diversity of shape and mixing state for ambient black carbon particles
KANG HU, Dantong Liu, Ping Tian | Zhejiang University

ATAS P5 022 Assessment of carbonaceous aerosols at a remote high altitude location in the Indian Central Himalayas
RAHUL SHEORAN, Umesh Dumka, Antti Hyvärinen, Rakesh Hooda | Aryabhata Research Institute of Observational Sciences

ATAS P5 023 Molecular-level characterization of brown carbon in atmospherically-relevant samples and its gas-particle partitioning
CHONG XING, Yibe Wan, Xiangpeng Huang, Xinlei Ge, Huan Yu | China University of Geosciences

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ATAS P5 024 Comparison of total PM emissions emitted from electric and internal combustion engine vehicles
SEOKHWAN LEE, Sang-Hee Woo | Korea Institute of Machinery and Materials

ATAS P5 025 Atmospheric processing of sea spray aerosols in the Eastern North Atlantic
SNEHA AGGARWAL, Paul Zieger, Matthew Salter, Claudia Mohr | Stockholm University

ATAS P5 026 Comprehensive experimental study of activation properties of Mediterranean pollen types through organic chemical composition and surface tension effects
ANDREA CASANS, Fernando Rejano, Julia Maldonado-Valderrama, Soledad Ruiz-Peñuela, J.A. Casquero-Vera, Barend van Drooge, Hassan Lyamany, Alberto Cazorla, Elisabeth Andrews, Fátima Mirza-Montoro, Daniel Perez-Ramirez, F.J. Olmo, Lucas Alados-Arboledas, Paloma Cariñanos, Gloria Titos | University of Granada

ATAS P5 027 Presenting BioCloud: Impact of biogenic emissions in the cloud condensation and ice nuclei budgets
ANDREA CASANS, Gloria Titos, Fernando Rejano, Juan Andrés Casquero-Vera, Alberto Cazorla, Soledad Ruiz-Peñuela, Hassan Lyamany, Sonia Castillo, Fátima Mirza-Montoro, Jesús Abril-Gago, Daniel Perez-Ramirez, Luis Antonio Ladino, Harry Álvarez, Barend van Drooge, Francisco José Olmo, Lucas Alados-Arboledas, Paloma Cariñanos | University of Granada

ATAS P5 028 Formation yields and physicochemical properties of the SOA formed from the day- and night-time oxidation of furans and PAHs performed in an oxidation flow reactor
ABD EL RAHMAN EL MAIS, Barbara D'Anna, Jean-Eudes Petit, Olivier Favez, Selim Aït-Aïssa, Alexandre Albinet | INERIS & Aix Marseille Univ, CNRS, LCE

ATAS P5 029 Diurnal hygroscopicity variations of PM2.5 in South Korea
JEONGBEEN KIM, Yoonkyeong Ha, Soodong Lee, Kyungil Cho, Seung-Bok Lee, Namgun Kim, Jinsang Jung, Changhyuk Kim | Pusan National University

ATAS P5 030 Modelling of the surface tension of multi-component aqueous systems of atmospheric significance using AIOMFAC activity coefficients
JUDITH VALERIA KLEINHEINS, Nadia Shardt, Claudia Marcolli, Thomas Peter, Ulrike Lohmann | ETH Zurich

ATAS P5 031 Particle number size distribution trends in ground measurements and atmospheric models
Ville Leinonen, Harri Kokkola, Taina Yli-Juuti, Tero Mielonen, Thomas Kühn, Tuomo Nieminen, Simo Heikkinen, Tuuli Miinalainen, Tommi Bergman, Ken Carslaw, Stefano Decesari, Markus Fiebig, Tareq Hussein, Niku Kivekäs, Radovan Krejci, Markku Kulmala, Ari Leskinen, Andreas Massling, Nikos Mihalopoulos, Jane Mulcahy, Steffen Noe, Twan Noije, Fiona O'Connor, Colin Dowd, Dirk Olivie, Jakob Pernov, Tuukka Petäjä, Øyvind Seland, Michael Schulz, Catherine Scott, Henrik Skov, Erik Swietlicki, Thomas Tuch, Alfred Wiedensohler, Annele Virtanen, SANTTU MIKKONEN | University of Eastern Finland

ATAS P5 032 Physical and Chemical properties of transported African dust particles in South Europe with synergy of remote sensing and in-situ measurements
FÁTIMA MIRZA-MONTORO, Sonia Castillo, Dominika Szczepanik, Gloria Titos, Daniel Pérez-Ramirez, Maria José Granados-Muñoz, Juan Antonio Bravo-Aranda, Jesús Abril-Gago, Diego Bermejo-Pantaleón, Juan Luis Guerrero-Rascado, Lucas Alados-Arboledas, Rafal Fortuna, Wojtek Kumala, Iwona S. Stachlewska | University of Warsaw

ATAS P5 033 First surface measurements of variation in Cloud Condensation Nuclei concentration over a rural background site of the Czech Republic
GAURAV MISHRA, Pavel Moravec, Vladimír Ždímal | Institute of Chemical Process Fundamentals of The Czech Academy of Science

ATAS P5 034 Spatial and temporal distribution of fine aerosol acidity in the Eastern Mediterranean
ANNA MARIA NEROLADAKI, Maria Tsagkaraki, Pavlos Zarmpas, Irini Tsiodra, Kyriaki Papoutsidaki, George Kouvarakis, Eleni Liakakou, Christos Kaltsonoudis, Athanasios Karagioras, Aikaterini Bougiatioti, Konstantinos Kourtidis, Spyros Pandis, Athanasios Nenes, Stelios Myriokefalitakis, Nikos Mihalopoulos, Maria Kanakidou | University of Crete, Greece

ATAS P5 035 Chemically speciated mass size distribution, particle density, shape and origin of PM1 measured at a rural background site in Central Europe
PETRA POKORNÁ, Naděžda Zíková, Petr Vodička, Radek Lhotka, Saliou Mbengue, Adéla Holubová Šmejkalová, Véronique Riffault, Jakub Ondráček, Jaroslav Schwarz, Vladimír Ždímal | Institute of Chemical Process Fundamentals of the CAS

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ATAS P5 036 Aerosol composition, boundary layer dynamics, and air quality in the urban background of the city of Stuttgart in Winter
HARALD SAATHOFF, Hengheng Zhang, Wei Huang, Xiaoli Shen, Ramakrishna Ramisetty | Karlsruhe Institute of Technology

ATAS P5 037 Chemical characterization of African dust particles in the Yucatan Peninsula
MONTSERRAT SILVA, Daniel Rosas, Teresa Pi Puig, Salett Novelo, Javier Miranda, Harry Alvarez, Bernardo Figueroa, Javier Morales, Jorge Uuh, Marco Pinto, Graciela B. Raga, Dara Salcedo, Irma Rosas, Jessica Olivares, Luis A. Ladino | Universidad Nacional Autónoma De México (UNAM)

ATAS P5 038 Measuring ship exhaust particle volatility
PAULI SIMONEN, Lassi Markkula, Joni Kalliokoski, Hilkka Timonen, Luis M. F. Barreira, Jana Moldanova, Barbara D'Anna, Brice Temime-Roussel, Grazia M. Lanzafame, Oskari Kangasniemi, Kimmo Teinilä, Sanna Saarikoski, Håkan Salberg, Leonidas Ntziachristos, Jorma Keskinen, Miikka Dal Maso | Tampere University

ATAS P5 039 Stable nitrogen isotope composition and chemical characterization of ambient PM2.5 in a heavily polluted city in the Indo-Gangetic plains (IGP)
GYANESH KUMAR SINGH, Pradhi Rajeev, Debajyoti Paul, Tarun Gupta | Indian Institute of Technology Kanpur

ATAS P5 040 Annual Cycle of Hygroscopic Properties and Mixing State for the urban background Aerosol in Athens, Greece.
CHRISTINA SPITIERI, Maria Gini, Konstantinos Eleftheriadis, Martin Gysel-Beer | NCSR «DEMOKRITOS»

ATAS P5 044 Evaluation of Isorropia for aerosol acidity at three regional sites in COALESCE network
RAHUL WADHWANI, Deeksha Shukla, Ramya Sunder Raman, Abhisheg Dhandapani, R Naresh Kumar, Jawed Iqbal, S V L Prasad, Sadashiva Murthy, K P Jithin | Indian Institute of Education Science and Research, Bhopal

ATAS P5 045 Aerodynamic size-resolved composition and cloud condensation nuclei properties of aerosols in Beijing suburban region
CHENJIE YU, Dantong Liu, James Allan, Kang Hu, Ping Tian, Yangzhou Wu, Delong Zhao, Huihui Wu, Dawei Hu, Wenbo Guo, Qiang Li | Laboratoire Interuniversitaire Des Systèmes Atmosphériques

ATAS P5 046 Site-specific Mass Absorption Cross-section of Elemental Carbon, Brown Carbon, and Mineral Dust at Bhopal, Central India
ANKUR BHARDWAJ, Kajal Yadav, Diksha Haswani, Ramya Sunder Raman | Indian Institute of Science Education and Research Bhopal

ATAS P5 047 Aerosol absorption by in-situ filter photometer and by ground-based sun-photometer in a polluted urban atmosphere within the Po valley, Italy
ALESSANDRO BIGI, Elisabeth Andrews, Martine Collaud Coen, Dario Massabò, Lorenzo Guerrieri, Sergio Teggi, Grazia Ghermandi | University of Modena and Reggio Emilia

ATAS P5 049 Saturation vapor pressure characterization of low-volatility organic compounds using isothermal evaporation
ZIJUN LI, Miika Vainikka, Taina Yli-Juuti, Noora Hyttinen, Siegfried Schobesberger, Annele Virtanen | University of Eastern Finland

ATAS P5 050 Advanced receptor modelling for optical source apportionment: An alternative approach to overcome current modelling limitations
ROBERTA VECCHI, Alice C. Forello, Vera Bernardoni, Sara Valentini, Gianluigi Valli, Federica Crova, Giulia Calzolai, Franco Lucarelli, Silvia Nava, Dario Massabò, Paolo Prati | Dept. of Physics - University of Milan

ATAS P5 051 Real-time Measurement of the Phase State of Complex Aerosol Particles by Combining Chemical Analysis with Volatility Distribution
Sining Niu, Sahir Gagan, Jordan Krechemer, YUE ZHANG | Texas A&M University

ATAS P5 052 A benchmark dataset of aerosol optical properties for global climate model evaluation
Lauren Schmeisser, ELISABETH (BETSY) ANDREWS | NOAA/GML and CIRES/University of Colorado

ATAS P5 053 Ultrafine Black Carbon particles and their rapid size evolution observed in La Paz, Bolivia
ROB MODINI, A. Marinoni, F. Velarde, V. Mardonez-Balderrama, P. Ginot, G. Uzu, D. Aliaga, G. Ciarelli, I. Moreno, C. Mohr, F. Bianchi, M. Andrade, P. Laj, M. Gysel-Beer | Paul Scherrer Institute

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

ATAS P5 054 Studying light-absorbing aerosols properties in Northern France through combined in-situ observations, emission inventory, and individual back-trajectory analyses
ALEAJNDRA VELAZQUEZ - GARCIA, Joel F. de Brito, Suzanne Crumeyrolle, Emmanuel Tison, Eric Bourrianne, Isabelle Chiapello, Véronique Riffault | IMT Nord Europe

ATAS P5 055 Long-range transport of aerosols originating from the Black Sea as observed over Athens by a synergy of remote sensing techniques during 2014-2020
DIMITRA ANAGNOU, Marilena Gidarakou, Christina-Anna Papanikolaou, Alexandros Papayannis, Maria Mylonaki, Romanos Foskinis, Panagiotis Kokkalis, Ourania Soupiona, Eleni Kralli | National Technical University of Athens

ATAS P5 056 Highlights of tropospheric aerosol transport from a coastal to a high-altitude station based on in situ and remote sensing measurements during the CALISHTO-HELMOS Campaign
ALEXANDROS PAPAYANNIS, Christina Anna Papanikolaou, Dimitra Anagnou, Romanos Foskinis, Athanasia Moutafidou, Andreas Aktypis, Konstantinos Eleftheriadis, Athanasios Nenes, Maria Gini, Ghislain Motos, Prodromos Fetfatzis, Marilena Gidarakou, Konstantinos Granakis, Olga Zografou, Christina Spitieri, Evangelia Diapouli, Mika Komppula, Ville Vakkari, Alexis Berne, Franziska Vogel, Ottmar Moehler, Panagiotis Kokkalis, Maria Mylonaki, Ourania Soupiona, Stavros Solomos, Thierry Podvin, Philippe Goloub, Christos Kaltsonoudis, Spyros Pandis | National Technical University of Athens-LRSU

ATAS P5 058 Optical properties and radiative forcing estimations of high-altitude aerosol transport based on laser remote sensing techniques: Highlights from the CLIMPACT Campaign at the Helmos mountain (September 2021)
ALEXANDROS PAPAYANNIS, Christina-Anna Papanikolaou, Dimitra Anagnou, Romanos Foskinis, Ourania Soupiona, Maria Mylonaki, Marilena Gidarakou | National Technical University of Athens-LRSU

ATAS P5 059 Exploring the effect of photochemical ageing on the microphysical properties of brown carbon containing aerosol using electrodynamic levitation and environmental scanning electron microscopy
STEPHANIE JONES, Alexei Kiselev, Thomas Leisner | Karlsruhe Institute of Technology

ATAS P5 060 Variability of black carbon aerosol concentrations and sources at the Central Adriatic coastal zone: light-absorption observation and source-oriented modelling
Andrea Milinković, Asta Gregorič, Vedrana Džaja Grgičin, Sonja Vidič, Abra Penezić, Ana Cvitešić Kušan, Saranda Bakija Alemprijević, Anne Kasper-Giebl, SANJA FRKA MILOSAVLJEVIĆ | Ruđer Bošković Institute

ATAS P5 061 Carbonaceous Aerosol Analysis Tool CAAT Software package for data analysis
KLEMEN KUNSTELJ, Matej Zemljak, Matic Ivančič, Asta Gregorič, Martin Rigler | Aerosol d.o.o.

ATAS P5 062 Optical properties of Saharan and Saudi Arabian dust using AERONET sunphotometer data
ELINA GIANNAKAKI, Chris Skevofylax | University of Athens

ATAS P5 063 Estimate spatial distribution of PM2.5 using satellite remote sensing in land use regression model
SHIH-YA WANG, T.C. Lin, Hsueh-hsun Li, P.T. Chiueh | National Taiwan University

ATAS P5 064 Sources and Chemical Composition of Particulate Matter in the Arabian Gulf Region: A Regional and Local Perspective from Qatar
M. RAMI ALFARRA, Shamjad Moosakutty, Azhar Siddique, Mohammed Ayoub | Qatar Environment and Energy Research Institute

ATAS P5 065 Aerosol optical properties during fresh and aged wildfire smoke events in Colorado
Lauren Schmeisser, ELISABETH ANDREWS, Patrick Sheridan, A. Gannet Hallar, Daniel Jaffe | NOAA/GML and CIRES/ University of Colorado

ATAS P5 066 The NOAA Table Mountain Regional Atmospheric Monitoring Station: Overview and summary of the first three years of surface aerosol measurements
PATRICK SHERIDAN, Lauren Schmeisser, Elisabeth Andrews | NOAA Global Monitoring Laboratory

ATAS P5 068 Long-term measurements of free-tropospheric black carbon particles
SARAH TINORUA, Cyrielle Denjean, Pierre Nabat, Thierry Bourrianne, Véronique Pont, François Gheusi, Emmanuel Leclerc | Centre National De Recherches Météorologiques

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ATAS P5 069 A seven-years based characterisation of aerosol light scattering properties at Central European rural site: Variability and Source apportionment
LENKA SUCHÁNKOVÁ, Saliou Mbengue, Nadežda Zíková, Jakub Ondráček, Adéla Holubová Šmejkalová, Roman Prokeš, Ivan Holoubek, Vladimír Ždímal | Global Change Research Institute of the Czech Academy of Science, Czech Republic

ATAS P5 071 Observations of Saharan Dust over Southern Germany by Aircraft-, Ceilometer-, and In-situ-Measurements in March 2022
FRANK WAGNER, Dörthe Ebert, Ina Mattis, Tobias Pohl, Harald Flentje, Jochen Förstner, Heike Diedrich-Roesch, Axel Dalheimer, Konradin Weber | Deutscher Wetterdienst (DWD)

ATAS P5 073 Development of a spatiotemporal land use regression model for PM2.5 measurement predictions in Nairobi, Kenya
MOSES NJERU, M.J. Gatari, D. K. Kariuki | University of Nairobi

ATAS P5 074 Vertical separation and profiling of individual aerosol species based on remote sensing instruments and look up tables of preset aerosol mixtures
KONSTANTINOS MICHAILIDIS, Nikolaos Siomos, Kalliopi A. Voudouri, Katerina Garane, Angelos Karanikolas, Dimitris Karagkiozidis, Athanasios Natsis, Dimitris Balis | Aristotle University of Thessaloniki

ATAS P5 075 Investigating Intra-urban Spatial Variability of Traffic-related Airborne PM in Industrial Park Settings
SULTAN ABDILLAH, Sheng-Jie You, Ya-Fen Wang | Chung Yuan Christian University

ATAS P5 076 Refractive index of black carbon (BC) and brown carbon (BrC) particles using aerodynamic aerosol classification
Dawei Hu, Rami Alfarra, Kate Szpek, Justin Langridge, Michael Cotterell, Claire Belcher, Ian Rule, Zixia Liu, Chenjie Yu, Yunqi Shao, Aristeidis Voliotis, Mao Du, Brett Smith, Greg Smallwood, Prem Lobo, Dantong Liu, Jim Haywood, Hugh Coe, JAMES ALLAN | University of Manchester

ATAS P5 077 Direct radiative effects of smoke aerosol during the extreme 2019/2020 Australian wildfire season
ROLAND SCHRÖDNER, Holger Baars, Matthew Christensen, Anne Kubin, Fabian Senf, Ina Tegen, Kerstin Schepanski, Kevin Ohneiser | Leibniz Institute for Tropospheric Research

POSTER AREA 3

AT P2

Electrical effects

AT P2 001 Aerosol Particle Filtering Fibrous Matrixes Produced from Biobased Polymers
GODA MASIONE, Edvinas Krugly, Justinas Masionis, Darius Ciuzas, Dainius Martuzevicius | Kaunas University of Technology

AT P2 002 Apparatus for electrospray deposition studies with stationary collector
DEEPAK PARAJULI, Pol Vilanova-Font, Joan Rosell-Llompart | Universitat Rovira I Virgili

AT P2 003 Stability of nanoparticle production by spark ablation
KLITO PETALLIDOU, Spyros Bezantakos, A. Schmidt-Ott, George Biskos | The Cyprus Institute

AT P2 004 Production of decorated Pd-based nanoparticles by spark ablation
KLITO PETALLIDOU, Andreas Sousanis, Andreas Schmidt-Ott, George Biskos | The Cyprus Institute

AT P2 005 11 elements in 11 days: Automated characterization of VSP-G1 by linking aerosol generators with analytical instrumentation and computational models
Tobias Pfeiffer, BERNARDUS ZIJLSTRA, Tomas Storck, Tobias Coppejans | VSPARTICLE B.V.

AT P2 006 Design and Validation of a Highly Efficient Transparent Filterfor Respiratory Protective Devices
TADAS PRASAUSKAS, Lauryna Dabasinskaite, Justinas Masionis, Edvinas Krugly, Inga Stasiulaitiene, Pranas Šileika, Dainius Martuzevicius | Kaunas University of Technology

AT P2 007 Numerical simulations of electrosprays discharged by unipolar ions
Jordi Grifoll, JOAN ROSELL-LLOMPART | Universitat Rovira I Virgili

AT P2 008 On the variation of the bipolar charging efficiency
DOMINIK STOLZENBURG, Sebastian Holm, Tiia Laurila, Runlong Cai, Juha Kangasluoma | Institute for Atmospheric and Earth System Research, University of Helsinki

AT P2 009 The minimum flowrate and the operational window of electrospraying in the cone-jet mode
JAN MARIJNISSEN, Caner Yurteri, Karuga S. Waiyego, Rob Hartman | Un. of Nairobi

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AT P2 011 Particle formation by electrospraying in the absence of droplet Coulombic instabilities
DEEPAK PARAJULI, Joan Rosell-Llompart | Universitat Rovira I Virgili

AT P2 012 On-line compositional measurements of AuAg aerosol nanoparticles using optical emission from spark ablation
MARKUS SNELLMAN, Per Samuelsson, Axel Eriksson, Zhongshan Li, Knut Deppert | Lund University, Division of Solid State Physics and NanoLund, Lund, Sweden

AT P2 013 Collection and Decomposition of Oil Mist via Corona Discharge and Surface Dielectric Barrier Discharge
Gihyeon Yu, JISOO CHOI, Jeaho Oh, Sanggwon An, Jungho Hwang | Department of Mechanical Engineering

AT P2 014 Uncertainty Analysis of Particle Charging Probability
VÄINÖ HÄMÄLÄINEN, A. Seppänen, K. E. J. Lehtinen | University of Eastern Finland

POSTER AREA 3

AT P3

High temperature aerosols and filtration

AT P3 001 Physicochemical particle properties of biomass cookstove emissions – influence of stove technology and fuel interactions
ROBERT LINDGREN, Natxo García-López, Karin Lovén, Lisa Lundin, Joakim Pagels, Christoffer Boman | Umeå University

AT P3 002 The effect of additives to reduce the high temperature chlorine corrosion on the composition of particles in boilers of waste incineration plants
STEFAN SCHUMACHER, Jörg Lindermann, Burkhard Stahlmecke, Christof Asbach | Institute of Energy and Environmental Technology (IUTA)

AT P3 003 Emissions from residential combustion of several types of mineral coal
Estela D. Vicente, Ana Calvo, Célia Alves, Carlos Blanco Alegre, ROBERTO FRAILE | University of Leon

AT P3 004 The utilizing of a quality index to assess the filtration efficiency of air filters – lab tests
TOMASZ JANKOWSKI | Central Institute for Labour Protection-National Research Institute

AT P3 005 Pressure drop evolution of multilayer metallic filter clogging by a liquid aerosol
MARIE LECOQ, Soleiman Bourrous, Dominique Thomas, Jean-Christophe Appert-Collin, Fabien Floc'Hlay | IRSN

AT P3 006 Study of the capture of charged aerosol particles by electret filter media
ALEXEY EFIMOV, Denis Kornyushin, Anton Patarashvili, Ivan Volkov, Victor Ivanov | Moscow Institute of Physics and Technology

AT P3 007 Characterization of particle formation in intense laser-metal interaction
ATTILA NAGY, Szilvia Kugler, László Péter, János Osán, Veronika Groma, Aladár Czitrovszky | Wigner Research Centre for Physics

AT P3 008 Washable and visible-light-driven antimicrobial air filters through the simple coating of photosensitiser/silica-alumina composites
KI JOON HEO, Sang Bin Jeong, Dong Uk Lee, Byeong Jin Lee, Gi Byoung Hwang, Ivan P Parkin, Jae Hee Jung, Dong Yun Choi | University College London

POSTER AREA 3

AT P4

Aerosol emissions and control technologies

AT P4 001 Detection of Ship Plumes using Novel Markers in Single-Particle Mass Spectrometry
JOHANNES PASSIG, Lukas Anders, Julian Schade, Ellen Iva Rosewig, Paul Haubenwallner, Robert Irsig, Thorsten Streibel, Thomas Adam, Ralf Zimmermann | Helmholtz Centre Munich and University of Rostock

AT P4 002 Comparing Ground-based Contrail Observations with Flight Data and Model Forecasts
JOEL PONSONBY, Jade Low, Edward Gryspeerdt, Roger Teoh, Marc Shapiro, Marc Stettler | Imperial College London

AT P4 003 Characteristics of Frictionally Charged Brake Wear Particle According to Brake Pad Types and Electrostatic Precipitator Application
SANG-HEE WOO, Seokhwan Lee | Korea Institute of Machinery and Materials

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

AT P4 004 Characterization of polycyclic aromatic compounds emitted by EURO 6b and d-TEMP passenger cars: emission factors, gas/particle partitioning and source makers.
ALEXANDRE ALBINET, Stéphane Raux, Mickael Leblanc | INERIS

AT P4 005 Determination of unique particulate and gas-phase aviation emission tracers
ZACHARY DECKER, Martin Gysel-Beer, Jay Slowik, Peter Alpert, Markus Ammann, Andre Prévôt, Benjamin Brem | Paul Scherrer Institute

AT P4 006 Changes in CCN and IN Activity of Combustion Particles Induced by Different Pathways to Marine Fuel Regulatory Compliance
LUIS ESCUSA DOS SANTOS, Kent Salo, Jonas Sjöblom, Thomas B. Kristensen, Erik S. Thomson | University of Gothenburg

AT P4 007 AVIATOR Project – Methodology for on-wing measurement to characterize the evolution of the engine exhaust particle matter in the downstream plume
LOUISE GANEAU, David Delhaye, Patrice Blanchet, Philippe Lalande, Dévora Hormigo, Jesús Sánchez Valdepeñas, Paola Moreno González, María Sánchez García, Andrew Crayford, Eliot Durand, Jesús Javier Rodriguez Maroto, Dosh Kilic, Paul Williams, Simon Christie, Mark Johnson | ONERA

AT P4 008 Effects of lubricating oil characteristics on compressed natural gas (CNG) vehicle solid particle number emissions
TERO LÄHDE, Brouch Giechaskiel, Giorgio Martini, Keith Howard, Joanne Jones, Sukhy Ubhi | European Commission – Joint Research Centre (JRC)

AT P4 009 Spatial analysis of ultrafine particle concentrations in urban microenvironment in winter
HENNA LINTUSAARI, Teemu Lepistö, Laura Salo, Kimmo Teinilä, Jarkko V. Niemi, Hilkka Timonen, Topi Rönkkö | Tampere University

AT P4 010 Aerosol emitted by aviation within the UTLS region: properties observed from the IAGOS-CARIBIC Flying Laboratory
CHRISTOPH MAHNKE, Ulrich Bundke, Rita Gomes, Marcel Berg, Helmut Ziereis, Monica Sharma, Mattia Righi, Johannes Hendricks, Andreas Zahn, Andreas Petzold | Forschungszentrum Jülich GmbH

AT P4 011 Impact of fuel, engine, and after treatment technologies on air pollutants emitted by modern passenger vehicles
SANNA SAARIKOSKI, Anssi Järvinen, Lassi Markkula, Minna Aurela, Niina Kuittinen, Jussi Hoivala, Luis M F Barreira, Päivi Aakko-Saksa, Hilkka Timonen, Henri Hakkarainen, Pasi Jalava, Topi Rönkkö | Finnish Meteorological Institute

AT P4 012 Chemical characterisation of polar-extractable organic compounds from ship engine particulate emissions with ultrahigh-resolution mass spectrometry
ERIC SCHNEIDER, Uwe Käfer, Hendryk Czech, Christopher P. Rüger, Ralf Zimmermann | University Rostock

AT P4 013 Chemical composition of fresh primary and aged secondary emissions from a passenger ship
HILKKA TIMONEN, Luis Miguel Feijo Barreira, Pauli Simonen, Jana Moldanova, Lassi Markkula, Joni Kalliokoski, Barbara D'Anna, Brice Temime-Roussel, Grazia Maria Lanzafame, Håkan Salberg, Kimmo Teinilä, Sanna Saarikoski, Leonidas Ntziachristos, Jorma Keskinen, Miikka Dal Maso | Finnish Meteorological Institute

AT P4 014 High-throughput generation of aircraft-like soot
UNA TRIVANOVIC, Michael Pereira Martins, Georgios Kelesidis, Sotiris Pratsinis | ETH Zürich

AT P4 016 Non-regulated emission measurements on alternative fueled CNG Euro 6d-temp vehicle focusing on sub-23nm volatile particles
Zisimos Toumasatos, Corrado Corsetti, Anastasios Kontses, Anastasios Raptopoulos-Chatzistefanou, Carlo Beatrice, Zissis Samaras, LEONIDAS NTZIACHRISTOS | Aristotle University Thessaloniki

AT P4 017 The Influence of Diesel Particulate Filter on PM and PCDD/Fs emitted from Electrical Generator
AULIA NUR MUSTAQIMAN, John Paul Santos, Chen Yu Lin, Lin-Chi Wang | Chung Yuan Christian University

AT P4 018 Measurement of vehicle nanoparticle emissions from hundreds of vehicles with the on-road chase method
PANU KARJALAINEN, Henri Oikarinen, Petteri Marjanen, Aarne Kiviniemi, Leonardo Negri, Stanislav Demyanenko, Ville Leinonen, Sampsa Martikainen, Santtu Mikkonen, Miska Olin | Tampere University

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

AT P4 019 Determination of the metal fraction in marine engine emissions working under different operating conditions
Sara Padoan, Ajit Paul Mudan, JAN BENDL, Mohammad Saraji-Bozorgzad, Uwe Käfer, Uwe Etzien, Thorsten Streibel, Martin Sklorz, Bert Buchholz, Ralf Zimmermann, Thomas Adam | University of the Bundeswehr Munich

AT P4 020 Aging air filter materials with typical urban aerosols
María José Rubio Henriquez, Jesús Alejandro Marval Díaz, PAOLO TRONVILLE | Politecnico di Torino - Department of Energy

AT P4 021 Transition of size distribution and mass concentration of carbonaceous nanoparticle aggregates during low-temperature oxidation in a plug-flow reactor
FABIAN PETER HAGEN, Malte Seitz, Henning Bockhorn, Rainer Suntz, Dimosthenis Trimis | Karlsruhe Institute of Technology (KIT), Engler-Bunte-Institute

POSTER AREA 3

BAP P3

Modelling of internal and external aerosol processes

BAP P3 001 Carbonaceous aerosol formation & growth by enclosed spray combustion of hydrocarbons
UNA TRIVANOVIC, Michael Pereira Martins, Georgios Kelesidis, Sotiris Pratsinis | ETH Zürich

BAP P3 002 A new approach to liquid nucleation: Replica-exchange transition interface sampling (RETIS) simulation of argon nucleation
CHRISTOPHER DAUB, Theo Kurtén | University of Helsinki

BAP P3 003 Effect of aluminium doping on crystallinity dynamics of titania nanoparticles
DIEGO CHAPARRO, Eirini Goudeli | University of Melbourne

BAP P3 004 The collision-dominated regime of electrodynamic particulate suspension
Han Ling, FRANCISCO HIGUERA, Pedro Luis Garcia-Ybarra, Jose Luis Castillo | Universidad Politecnica De Madrid

BAP P3 005 A thermodynamically consistent representation of atmospheric microphysics
PAUL BOWEN, John Thuburn | Exeter University

BAP P3 006 Crystallization of gold aerosol nanoparticles
YI WANG, S.E. Pratsinis | ETH Zurich

BAP P3 007 Binary agglomerate fragmentation as a graph-theory problem
Lorenzo Isella, Anastasios Melas, Margaritis Kostoglou, YANNIS DROSSINOS | European Commission, Joint Research Centre

BAP P3 008 Design of carbon black morphology by discrete element modeling
SIMON BENZ, Georgios Kelesidis, Sotiris Pratsinis | ETH Zürich

BAP P3 009 Design and Validation of Nanofibrous Filters for Aerosol Particle Sampling
DAINIUS MARTUZEVICIUS, Edvinas Krugly, Preethi Ravikumar, Lauryna Dabasinskaite, Martynas Tichonovas, Tadas Prasauskas, Darius Ciuzas, Violeta Kauneliene | Kaunas University of Technology

BAP P3 010 Local aerosol deposition in industrial bends of various geometries used in ventilation networks
DELPHINE COSTA, Jeanne Malet, Evelyne Géhin | UPEC & IRSN

BAP P3 011 CFD simulations and analysis of aerosol backflow during dismantling operations
Zeinab Rida, THOMAS GELAIN, Corinne Prevost, Eric Climent | Institut De Radioprotection Et De Sûreté Nucléaire (IRSN)

BAP P3 012 Secondary Organic Aerosols-Capturing SOA formation in different timescales, using a CFD modelling approach
GIANNIS IOANNIDIS, Chaofan Li, Leonidas Ntziachristos | Aristotle University of Thessaloniki

BAP P3 013 Air dynamics and particle transport in an aerosol cyclone sampler
DZMITRY MISIULIA, Göran Lidén, Sergiy Antonyuk | Technische Universität Kaiserslautern

BAP P3 014 Aerosol deposition on resonances in a closed cross section jump tube
DAMIR GUBAIDULLIN, Rinat Zaripov, Liudmila Tkachenko, Linar Shaydullin | Institute of Mechanics and Engineering, FRC Kazan Scientific Center, Russian Academy of Sciences

BAP P3 015 Large eddy simulations of Iron(III) oxide nanoparticle synthesis in spray flames
SEUNG-JIN BAIK, Irenäus Wlokas, Andreas Kempf | Institute for Combustion and Gasdynamics (IVG), University of Duisburg-Essen

BAP P3 016 A Step-wise Hydration Model of Organics and Electrolytes
ANTHONY WEXLER | UC Davis

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BAP P3 017 Ab initio nonadiabatic molecular dynamic modelling of decomposition of tetroxide CH3O4CH3
RASHID VALIEV | University of Helsinki

BAP P3 018 Direct observations of the effect of relative humidity on gas-particle partitioning
MIHNEA SURDU, David Bell, Dongyu S. Wang, Houssni Lamkaddam, Mao Xiao, Chuan Ping Lee, Lucia Caudillo, Guillaume Marie, Dandan Li, Matthieu Riva, Wiebke Scholz, Elias Eccli, Mingyi Wang, Brandon Lopez, Farnoush Ataei, Neil M. Donahue, Urs Baltensperger, Imad El Haddad | Paul Scherrer Institute

BAP P3 019 Thermal conditioning of oil test aerosols
LARS HILLEMANN, Daniel Göhler, René Adam, Jan Müller, Andreas Rudolph | Topas GmbH

BAP P3 020 In-flight measurement of nanoparticle surface area and volume
CYPRIEN JOURDAIN, Jonathan Symonds, Adam Boies | University of Cambridge

BAP P3 021 Aerosol Capture by Vegetation: The importance of leaf shape and density
BEN MULLINS, Lizelle van Wyk, Arne Bredin, Ryan Mead-Hunter, David Belton, Nima Nadim, Andrew King | Curtin University

BAP P3 022 Influence of hydrogen environment on morphology of nanoparticle agglomerates: Atomistic simulations
ALEXANDER PLACK, Vinzent Olszok, Alfred P. Weber | Institute of Particle Technology, Clausthal University of Technology

BAP P3 023 Diffusivities of fullerene and silica nanoparticles in air from detailed molecular dynamics
KATERINA (AIKATERINI) S. KARADIMA, Dimitrios G. Tsalikis, Vlasis G. Mavrantzas, Sotiris E. Pratsinis | ETH Zurich

BAP P3 024 Simulation of deposition and growth of platinum particles on alumina nanoparticles in a spray flame process
PATRICK WOLLNY, Steven Angel, Hartmut Wiggers, Andreas Kempf, Irenäus Wlokas | University of Duisburg-Essen

BAP P3 025 Modelling and simulation of silicon nanoparticle formation and growth in a microwave plasma reactor
PATRICK WOLLNY, Linus Engelmann, Jan Menser, Johannes Sellman, Christof Schulz, Hartmut Wiggers, Andreas Kempf, Irenäus Wlokas | University of Duisburg-Essen

BAP P3 026 Toward spontaneous charging of single aerosol particles in an optical trap
ANDREA STOELLNER, I.C.D. Lenton, S. Waitukaitis | Institute of Science and Technology, Austria

BAP P3 027 Approximating the van der Waals interaction potentials between agglomerates and their coagulation enhancement
JOSÉ MORÁN, Jérôme Yon, Christophe Henry, M. Reza Kholghy | Carleton University

POSTER AREA 3

BAP P4

BAP-P4: Physical properties of aerosol particles

BAP P4 001 The influence of wettability on the penetration of soluble particles through gas cleaning filters
ALMUTH SCHWARZ, Jörg Meyer, Achim Dittler | Karlsruhe Institute of Technology

BAP P4 003 Aerosol typing from remote sensing techniques and in situ data: Overview of the two PANACEA campaigns over Thessaloniki, Greece
KALLIOPI VOUDOURI, Konstantinos Michailidis, Nikolaos Siomos, Anthi Chatzopoulou, Georgios Kouvarakis, Nikolaos Mihalopoulos, Dimitrios Balis | AUTH

BAP P4 004 HOMO-LUMO gaps of large polycyclic aromatic hydrocarbons and their implication on the quantum confinement behavior of flame-formed carbon nanoparticles
NIKOLAOS KATERIS, Amitesh Jayaraman, Hai Wang | Stanford University

BAP P4 005 Solar Steam Generation by Plasmonic and Organic Nanoparticles
PIER GIUSEPPE RIVANO, Amogh Nagarkar, Georgios Kelesidis, Sotiris Pratsinis | ETH Zurich

BAP P4 006 Long-term characterization of the Athens background aerosol optical properties
KONSTANTINOS GRANAKIS, Stergios Vratolis, Prodromos Fetfatzis, Chris Tzanis, Konstantinos Eleftheriadis | NCSRD 'Demokritos'

BAP P4 007 Secondary Organic Aerosol (SOA) from Photo-Oxidation of Toluene: Influence of Reactive Nitrogen, Acidity and Water Vapours on Optical Properties
KALYAN MITRA, Ravi Kant Pathak, Harsh Raj Mishra, Xiangyu Pei | University of Gothenburg

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

BAP P4 008 The effect of microstructured surfaces on the impaction of monodispersed polystyrene microsphere particles
ANTONELLA AL NAJJAR, Emmanuelle Algre, Frederic Marty, Charles Motzkus, Pierre Didier, Stephane Moularat, Evelyne Gehin | CERTES

BAP P4 009 Quantifying the Aerosol Hygroscopicity of Glucose and Fluorodeoxyglucose
YALAN HE, C.P.F. Day, M.A. Carroll, A.E. Carruthers | Newcastle University

POSTER AREA 3

LP P2

Late Posters 2

LP P2 001 Indoor/Outdoor Bioaerosols Interface and Relationships Network (BioAirNet)
ZAHEER AHMAD NASAR, G. Drew, S. Tyrrel, I. Colbeck, C. Whitby, R. Ferguson, S. Jackson, M. Lemon, A. Mitchell, B. Painter, P. Douglas, E. Marczylo, K. Bhui, R. Kinnersley, S. Parker, F. Coulon | Cranfield University

LP P2 002 Forecasting PM2.5 concentration in port-cities
FOTIOS ANAGNOSTOPOULOS, Spyros Rigas, Michalis Papachristou, Christos Tryfonopoulos, Ioannis Chaniotis | University of Peloponnese

LP P2 003 Temporal Variation and Chemical compositions of PM2.5 concentration in Ulaanbaatar, Mongolia
AMGALAN NATSAGDORJ, N. Amgalan, D. Dashnyam, TS. Soyol-Erdene, L. YiJi | NUM

LP P2 004 A theoretical comparison between tailpipe and dilution tunnel solid particle measurements of light-duty vehicles
KONSTANTINOS KANOUTOS, Anastasios Melas, Barouch Giechaskiel, Yannis Drossinos, Dimitris Mitrakos | National Technical University of Athens

LP P2 005 Collection of aerosols containing S. kudriavzevii using, BioCascade, a novel size-fractionated bioaerosol sampler
Yuqiao Chen, Jiayi Chen, Sripriya Nannu Shankar, Stavros Amanatidis, ARANTZAZU EIGUREN-FERNANDEZ, John A. Lednicky, Chang-Yu Wu | Aerosol Dynamics Inc

LP P2 006 Negative atmospheric ions in an urban environment with high condensation sink and NOx
RUJING YIN, Xiaoxiao Li, Chao Yan, Markku Kulmala, Jingkun Jiang | University of Helsinki

LP P2 007 Fabrication of rGO-modified CeO2/TiO2 for photothermal catalytic oxidation of elemental mercury
JI-REN ZHENG, Chung-Shin Yuan, Yu-Lun Tseng | Institute of Environmental Engineering, National Sun Yat-sen University, Taiwan, ROC

POSTER AREA 3

SS1 P1

Special Session-1: Quantification of health risk from airborne particulate matter

SS1 P1 001 Long-term satellite-based estimates of air quality and premature mortality in Equatorial Asia through deep neural networks
PAOLA CRIPPA, Giovanni Lonati, M.T. Latif, M.I Mead | University of Notre Dame

SS1 P1 002 Characterization of intense winter air pollution in Ioannina, Greece: Residential wood burning, VOCs and aerosols
MAXIMILIEN DESSERVETTAZ, Akaterina Bougiatioti, Iasonas Stravroulas, Nicolaos Mihalopoulos, Tuija Jokinen, Mihalis Vrekoussis, Efstratios Bourtsoukidis | The Cyprus Institute

SS1 P1 003 Estimation of Respiratory Deposited Doses for Metals in Submicron Aerosol Using Mobile Aerosol Lung Deposition Apparatus (MALDA)
WEI-CHUNG SU, Jinho Lee, Inkyu Han | University of Texas Health Science Center at Houston

SS1 P1 004 A miniature flow tube homogenizer for aerosol mixing in the sub-micrometer and lower micrometer particle size range
STEFAN HORENDER, Andrea Giordano, Kevin Auderset, Konstantina Vasilatou | Eidgen. Institut Für Metrologie METAS

SS1 P1 005 A tunable lung physiomimetic stretch system evaluated with precision cut lungs slices and recellularized human lung scaffolds
Arturo Ibanez Fonseca, Oskar Rosmark, Johan Thorsson, Göran Dellgren, Oskar Hallgren, ANNA-KARIN LARSSON-CALLERFELT, Linda Elowsson Rendin, Gunilla Westergren-Thorsson | Department of Experimental Medical Science, Lung Biology, Lund University

SS1 P1 006 Advances in high-resolution imaging of cell cultures and tissues exposed to airborne particles
Camilla Dondi, Stephanie Rey, Lena Scholtz, Isabella Tavernaro, Ute Resch-Genger, Anna-Karin Larsson-Callerfelt, MICHAEL SHAW | National Physical Laboratory

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

SS1 P1 007 Laboratory-based generation of soot internally mixed with controlled amounts of secondary organic and inorganic matter
Tobias Hammer, Daniel M. Kalbermatter, Alejandro Keller, KONSTANTINA VASILATOU | Federal Institute of Metrology METAS

SS1 P1 008 Application of Mobile Aerosol Lung Deposition Apparatus (MALDA) on Estimation of Respiratory Deposited Doses for Hazardous Substances Contained in Ultrafine Particles
WEI-CHUNG SU, Jinho Lee | University of Texas Health Science Center at Houston

POSTER AREA 3

SS3 P1

Special Session-3: Advanced aerosol metrology for atmospheric science and air quality

SS3 P1 002 Towards standardizing the measurements of sub-10 nm aerosol particle size distribution
KATRIANNE LEHTIPALO, Dominik Stolzenburg, Juha Kangasluoma, Silja Häme, Markku Kulmala, Tuukka Petäjä | University of Helsinki

SS3 P1 003 Automating the Swiss Pollen Monitoring Network
GIAN LIEBERHERR, Benoit Crouzy, Bernard Clot, Sophie Erb, Fiona Tummon | Meteoswiss

SS3 P1 004 Method validation for mercury determination in airborne particulate matter and implementation in Pardubice area (Czech Republic)
THEOPISTI LYMPEROPOULOU, Lamprini Areti Tsakanika, Fotios Tsopelas, Klaus Michael Ochsenkuehn, Kyriaki Kiskira, Maria Ochsenkuehn-Petropoulou, Martin Gottschalk, Stefan Seeger | National Technical University of Athens

SS3 P1 005 Field intercomparison of stationary and portable soot instruments in a rural background environment under winter conditions
MÅRTEN SPANNE, Axel Eriksson, Madeleine Petersson Sjögren, Christina Isaxon, Erik Ahlberg, Adam Kristensson, L. Nilsson, Erik Swietlicki, P. Egholm Bøgh Pedersen, Q. Thu Nguyen, S. Koust Hansn, A. Bescond, F. Gaie-Levrel, C. Debert, A. Mahnaoui, L. Stabile, F. J. Gómez-Moreno, S. Vratolis, T. Tuch, U. Winkler, Alfred Wiedensohler, Jenny Rissler | Malmö STAD

SS3 P1 006 An Investigation by NPL into the Airborne Particle Removal Efficiency of a Commercial Extraction System in a Dental Surgery
JORDAN TOMPKINS, James Allerton, Filippos Matsakas, Andrew Brown | National Physical Laboratory

SS3 P1 007 Qualification of portable instruments for ambient aerosol measurements
Peter Bøgh Pedersen, STIG KOUST | Danish Technological Institute

SS3 P1 008 Characterising the Silver Particle Generator; a pathway towards standardising silver aerosol generation
TOBIAS HAMMER, Martin Irwin, Jacob Swanson, Vinicius Berger, Umesh Sonkamble, Adam Boies, Hans-Joachim Schulz, Konstantina Vasilatou | METAS

SS3 P1 009 Preliminary results of air quality at urban site with a low cost sensor
INMACULADA FOYO MORENO, F. Mantell, J. Vida | University of Granada

SS3 P1 010 MAC values in South East Europe during 2017 to 2019
STERGIOS VRATOLIS, Maria Gini, Evangelia Diapouli, Eija Asmi, Konstantinos Eleftheriadis | NCSR DEMOKRITOS

SS3 P1 011 Comparison of novel and standard ionising sources for the purposes of nanoparticle related metrology applications
ROBERT GILLIES, Kirsty McKay, Jordan Tompkins | University of Liverpool

POSTER AREA 3

SS4 P1

Special Session-4: Aerosols in the agriculture and livestock sectors

SS4 P1 001 Characterization of primary particles emitted by pig and poultry buildings
AURÉLIE JOUBERT, Nadine Guingand, Vincent Blazy, Anne Laure Boulestreau-Boulay, Nicolas Génot, Mélynda Hassouna, Solène Lagadec, Laurence Le Coq | IMT Atlantique / GEPEA Laboratory

SS4 P1 002 Characterization of the rural boundary layer dynamics based on the combination of ceilometer and Sun-photometric measurements
JESÚS ABRIL-GAGO, Grégori de Arruda Morerira, Alberto Cazorla, Sergio Aranda-Barranco, Sergio David Aguirre-García, Francisco Navas-Guzmán, Hassan Lyamani, Lucas Alados-Arboledas, Juan Luis Guerrero-Rascado | University of Granada

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

SS4 P1 003 Exhaust emissions from a prototype non-road natural gas engine
PETTERI MARJANEN, Niina Kuittinen, Panu Karjalainen, Sanna Saarikoski, Mårten Westerholm, Rasmus Pettinen, Minna Aurela, Henna Lintusaari, Pauli Simonen, Lassi Markkula, Joni Kalliokoski, Hugo Wihersaari, Hilkka Timonen, Topi Rönkkö | Tampere University

SS4 P1 004 Temporal Variation of Aerosol Loading Over Various Terrain in Chiang-Mai, Thailand During Peak Biomass-Burning Season in 2019 Using Low-Cost Sensors and Remote Sensing
AMIT BHUJEL, Sheng-Hsiang Wang, Chiao-Ling Pan, Kun-Hsu Wu, Wan Wiriya, Somjet Pattarapanitchai, Somporn Chantara, Serm Janjai, David M. Giles, Shantanu Kumar Pani | National Central University

SS4 P1 005 Understanding Atmospheric Properties of Pesticides using Mass Spectrometry
OLIVIA JACKSON, Aristeidis Voliotis, Thomas Bannan, Hugh Coe | University of Manchester

SS4 P1 006 Toxicity score of aerosols in rural and urban areas, with a focus on the Po Valley, Italy
MARCO RAVINA, Deborah Panepinto, Mariachiara Zanetti | Turin Polytechnic

POSTER AREA 3

SS5 P1

Special Session-5: Oxidative potential of aerosol particles and health risks

SS5 P1 002 Online dithiothreitol-based measurement of PM2.5 oxidative potential from two distinct pollution events in Beijing, China
KA YUEN CHEUNG, Lu Qi, Joseph V. Puthussery, Tianqu Cui, Tiantian Wang, Manousos Ioannis Manousakas, Yanli Ge, Gaoyuan Wei, Yu Kuang, Mengshuang Sheng, Zhen Cheng, Ailin Li, Zhiyu Li, Weikang Ran, Weiqi Xu, Renjian Zhang, Yanmei Han, Qiyuan Wang, Zifa Wang, Yele Sun, Junji Cao, Jing Shang, Qi Chen, Xinhua Qiu, Vishal Verma, Martin Gysel-Beer, Imad El Haddad, Andre Prevot, Rob Modini | Paul Scherrer Institute

SS5 P1 003 Relationship between chemical composition, source apportionment and oxidative potential of PM2.5 in an East-Mediterranean site
MARC FADEL, Dominique Courcot , Gilles Delmaire, Gilles Roussel, Charbel Afif, Frédéric Ledoux |
Université Du Littoral Cote D'opale

SS5 P1 004 Influence of storage conditions on the metal bioaccessibility and the oxidative potential of welding fumes
MANUELLA GHANEM, Laurent Yves Alleman, Davy Rousset, Esperanza Perdrix, Patrice Coddeville | Institut National de Recherche et de Sécurité (INRS)

SS5 P1 005 Prenatal exposure to PM2.5 oxidative potential and lung function in preschool age children: a prospective study
ANOUK MARSAL, Rémy Slama, Sarah Lyon-Caen, Lucille Joanna S. Borlaza, Jean-Luc Jaffrezo, Anne Boudier, Sophie Darfeuil, Rhabira Elazzouzi, Yoann Gioria, Johanna Lepeule, Ryan Chartier, Isabelle Pin, Joane Quentin, Sam Bayat, Gaëlle Uzu, Valérie Siroux | Institut Des Géosciences De L'environnement (IGE)

SS5 P1 006 Long-term measurements of aerosol Oxidative Potential in an urban site, Athens, Greece
DESPINA PARASKEVOPOULOU, Georgios Grivas, Aikaterini Bougiatioti, Maria Tsagkaraki, Pavlos Zarmpas, Athanasios Nenes, Nikolaos Mihalopoulos | National Observatory of Athens

SS5 P1 007 Characterization of the Oxidative Potential of fine aerosol in the Po Valley during RHAPS
MATTEO RINALDI, Lorenzo Massimi, Maria Agostina Frezzini, Francesco Manarini, Mara Russo, Paglione Marco, Alice Forello, Franco Lucarelli, Dario Massabò, Sara Valentini, Federica Crova, Gianluigi Valli, Roberta Vecchi, Maurizio Gualtieri, Francesca Costabile, Stefano Decesari, Silvia Canepari | CNR-ISAC

SS5 P1 008 Yearlong measurements of aerosol oxygenated Polycyclic Aromatic Hydrocarbons (OPAHs) in Athens, Greece
IRINI TSIODRA, Georgios Grivas, Aikaterini Bougiatioti, Constantine Parinos , Despina Paraskevopoulou, Athanasios Nenes, Nikolaos Mihalopoulos | University of Crete

SS5 P1 009 Measuring Online Oxidative Potential, Reactive Oxygen Species and Cell Viability of Biogenic and Anthropogenic Organic and Metal Particles
BATTIST UTINGER, Alexandre Barth, Steven J. Campbell, Zaira Leni, Markus Kalberer | Univeristy of Basel

SS5 P1 010 Oxidative potential and its source apportionment in Hungarian aerosol samples
MÁTÉ VÖRÖSMARTY, Gaëlle Uzu, Jean-Luc Jaffrezo, Zsófia Kertész, Imre Salma | Eötvös Loránd University, Budapest

POSTER SESSION 2 — Tuesday, 6 September 2022 | 17:00-19:00

SS5 P1 011 On the oxidative stress under conditions representative of the real human exposure to primary and secondary aerosol in the atmosphere
FRANCESCA COSTABILE, Maurizio Gualtieri, Matteo Rinaldi, Luca Di Liberto, Marco Paglione, Ilir Shuli, Maria Cristina Facchini, Stefano Decesari, Silvia Canepari, Lorenzo Massimi, Maria Agostina Frezzini, Gabriele Curci, Roberta Vecchi, Sara Valentini, Emanuela Corsini, Gloria Melzi | CNR ISAC

SS5 P1 012 Evaluating synergisms and antagonisms of ascorbic acid (AA) redox mechanism in oxidative potential (OP) measurements
EDUARDO JOSÉ DOS SANTOS SOUZA, Khanneh Wadinga Fomba, Manuela van Pinxteren, Nabil Deabji, Hartmut Herrmann | Leibniz Institute for Tropospheric Research e.V.

SS5 P1 013 Oxidative potential of atmospheric aerosols over strategically located sites in India
ANIL PATEL, Neeraj Rastogi | Department of Environmental Science, Stockholm University

SS5 P1 014 A Gold nanoparticles GC modified electrode useful for the assessment of oxidative potential of atmospheric particulate matter
MARIA RACHELE GUASCITO, Maria Pia Romano, Maria Giulia Lionetto, Maria Elena Giordano, Anna Rita De Bartolomeo, Daniele Contini | University of Salento, Dept. Disteba

SS5 P1 015 Day-Night Variations in the Chemical Composition and Sources of Aerosol in Düzce City Center, Turkey
FATMA ÖZTÜRK, Emre Dikmen, Eda Sagırlı, Tugce Eryakalı, Ebru Sarıkaya, Zeliha Gemici, Onur Kale, Nikolaos Mihalopoulos | Bolu Abant Izzet Baysal University

SS5 P1 016 Molecular composition, sources, and oxidative potential of organic aerosol in two megacities in Western China
TIANQU CUI, Manousos Manousakas, Qiyuan Wang, Gaëlle Uzu, Lu Qi, Yufang Hao, Peeyush Khare, Jay Slowik, Markus Furger, Jean-Luc Jaffrezo, Yuemei Han, Junji Cao, Kaspar Daellenbach, André Prévôt | Paul Scherrer Institute

SS5 P1 018 PM10 sources and their Oxidative Potential in two high-altitude Bolivian cities
VALERIA PAOLA MARDOÑEZ BALDERRAMA, Gaëlle Uzu, Marcos Andrade, Lucille Joanna S. Borlaza, Marco Pandolfi, Samuel Weber, Pamela Dominutti, Isabel Moreno, Jean-Luc Jaffrezo, Jean-Luc Besombes, Andrés Alastuey, Noemi Perez, Griša Močnik, Paolo Laj | Institute Des Géosciences de l'Environnement

SS5 P1 020 Personal exposure to PM2.5 oxidative potential and its association to birth outcomes
LUCILLE JOANNA BORLAZA, Gaelle Uzu, Marion Ouidir, Sarah Lyon-Caen, Anouk Marsal, Samuel Weber, Valerie Siroux, Johanna Lepeule, Anne Boudier, Jean-Luc Jaffrezo, Rémy Slama | University of Grenoble Alpes

SS5 P1 021 Prediction of oxidative potential of fine particles in various environments
SEUNGHYE LEE, Cristine Faye Denna, Dahye Oh, Jiho Jang, Joonwoo Kim, Minhan Park, Kihong Park | Gwangju Institute of Science and Technology (GIST)

SS5 P1 022 Oxidative potential of urban aerosol and bioaccessibility of associated elements in simulated lung fluids
PAVEL MIKUŠKA, Hana Cigánková, Jitka Hegrová | Institute of Analytical Chemistry of the Czech Academy of Sciences

SS5 P1 023 Reactive Oxygen Species and Oxidative Potential Measurements of Citric Acid Aerosol Aged by Iron-Citrate photolysis
Markus Ammann, KEVIN KILCHHOFER, Battist Utinger, Alexandre Barth, Markus Kalberer | Paul Scherrer Institute

VIRTUAL POSTERS — Thursday, 8 September 2022

AH eP1

Health effects of aerosols

AH eP1 001 Fine particles in the ambient air as a risk factor for non-allergic and allergic phenotypes of bronchial asthma
LILIYA FATKHUTDINOVA, Guzel Timerbulatova, Lyaila Yapparova, Gulnaz Gabidinova, Anastasiya Ablyaeva, Mileusha Khakimova, Olesya Skorokhodkina, Ramil Zalyalov | Kazan State Medical University

AH eP1 002 The role of emission inventories in simulating toxic organic aerosols in Europe for health impact estimations
NIKI PAISI, Jonilda Kushta, Angelos Violaris, Hugo Denier Van Der Gon, Jos Lelieveld | The Cyprus Institute

AH eP1 003 Changes in the chemical and radioactive composition and airborne bacterial communitybetween dust and non-dust events in Tenerife, Canary Islands (preliminary data)
CRISTINA GONZÁLEZ-MARTÍN, M. López-Pérez, J. Martín-Armas, X. Duarte-Rodríguez, A.A. Delgado – Brito, Pedro A. Salazar-Carballo, Carlos J. Pérez-González, F.J. Expósito, J.P. Díaz | Universidad De La Laguna

AH eP1 004 In-silico medical aerosol delivery to spontaneously-breathing paediatric patients with artificial airways
NATALIE ANDERSON, Britta Regli-von Ungern-Sternberg, Ryan Mead-Hunter, Andrew King, Alexander Larcombe, Ben Mullins | Curtin University

AH eP1 005 Respiratory exposure to PAHs in the city of Venice (Italy)
ELENA GREGORIS, Marco Vecchiato, Andrea Gambaro | National Research Council of Italy

AH eP1 006 Metal(loid) inhalation bioavailability estimation from atmospheric particulate matter (PM2.5) by using simulated alveolar lysosomal fluid and a dialyzability approach
NATALIA NOVO QUIZA, Silvia Sanromán Hermida, Joel Sánchez Piñero, Jorge Moreda Piñero, Purificación López Mahía, Soledad Muniategui Lorenzo | University of La Coruña

AH eP1 007 Gas-phase electrophoresis of exhaled breath condensate (EBC) applying a nano electrospray gas-phase electrophoretic mobility molecular analyser (nES GEMMA)
VICTOR U. WEISS, Petr Kuban, Günter Allmaier, Frantisek Foret | TU Wien, Institute of Chemical Technologies and Analytics

AH eP1 008 Oxidative potential and cytotoxicity of PM2.5 emitted by combustion conditions
EUNHA PARK, Kyunghee Lee, Jisu Woo, Youngjin Kim, Chang-Hoon Lee, Chul-Gyu Yoo, Hwajin Kim | Seoul National University

AH eP2

Bioaerosols

AH eP2 001 Pollen Impact on Air Quality by an Integrated Approach
MATTIA FRAGOLA, Maria Rita Perrone, Salvatore Romano | University of Salento

AH eP2 002 High-performance antimicrobial air filters based on visible light active flower-like nanostructures of layered double hydroxide frameworks
SE KYE PARK, Dong Uk Lee, Jae Hak Shin, Dong Yun Lee, Jung Hun Park, Jae Hee Jung, Gunwoo Kim, Dong Yun Choi | Korea Institute of Industrial Technology

AH eP2 003 Assessment of potential sources of airborne pollen in a high-mountain Mediterranean site (Sierra Nevada National Park, Spain)
SOLEDAD RUIZ PEÑUELA, Gloria Titos , Andrea Casans, Alberto Cazorla, Jesus Abril-Gago, Juan Luis Guerrero-Rascado, Lucas Alados-Arboledas, Paloma Cariñanos | University of Granada

AH eP2 004 Bacteria of the cereus group in atmospheric aerosols in the south of Western Siberia
Irina Andreeva, ALEKSANDR SAFATOV, Larisa Puchkova, Nadezhda Solovyanova, Galina Buryak | FBRI SRC VB «Vector» of Rospotrebnadzor

AH eP2 005 Culturable microorganisms in aerosol identified by aircraft sounding of the atmosphere over the seas of the Arctic sector of Russia
Irina Andreeva, ALEKSANDR SAFATOV, Nadezhda Solovyanova, Olesya Okhlopkova, Larisa Puchkova, Maxim Rebus, Galina Buryak, Ekaterina Astahova, Boris Belan, Denis Simonenkov | FBRI SRC VB «Vector» of Rospotrebnadzor

AH eP2 006 Atmospheric bioaerosols biodiversity from March 2019 to March 2020 at Saclay France.
ROLAND SARDA ESTEVE, Dominique Baisnee, Gediminas Mainelis, Scot.E Dowd, Benjamin Guinot, David O'Connor, Jean Sciare | CEA

VIRTUAL POSTERS — Thursday, 8 September 2022

AH eP2 007 One year of culturable bacteria in Cyprus : variability and geographical origin
ROLAND SARDA ESTEVE, Dominique Baisnée, Jean Sciare, Konstantina Oikonomou, Thaleia Gkraikou, Benjamin Guinot, David O'Connor | CEA

AH eP2 008 Control of fine particle exposure to A549 cell line cultured at air-liquid interface
YUKO MITERA, Tatsuya Oishi, Chigusa Matsumoto, Erika Ito, Takafumi Seto | Kanazawa University

AH eP2 009 Impact of Heavy Metal Mass Concentrations on PM10 Ecotoxicity in Autumn-Winter and Spring-Summer at a Central Mediterranean Coastal Site
SALVATORE ROMANO, Mattia Fragola, Franco Lucarelli, Roberto Caricato, Maria Rita Perrone, Maria Giulia Lionetto | University of Salento

AH eP2 010 Biogeography of airborne allergenic pollen grains from 2010 to 2018 in France
ANANDARAMANE CANDASSAMY, Roland Sarda-Esteve, Dominique Baisnee, Antonio Spanu, Benjamin Guinot, Jean Sciare, David O'Connor | Oberon Sciences

AH eP2 011 Cytotoxicity and mutagenicity of particulate matter emitted in beauty salons
DANIELA FIGUEIREDO, Estela Vicente, Ana Vicente, Cátia Gonçalves, Isabel Lopes, Helena Oliveira, Célia Alves | Universidade De Aveiro

AH eP2 012 Effects of particle-bound polycyclic aromatic hydrocarbons from different traffic sources in human alveolar epithelial cell line A549
Marlene Soares, DANIELA FIGUEIREDO, Helena Oliveira, Célia Alves | Universidade De Aveiro

AH eP3

AH-eP3: Exposure: Sources and health studies

AH eP3 001 Inhalation bioaccessibility of multi-class organic pollutants associated to atmospheric PM2.5: correlation with PM2.5 properties and health risk assessment
JOEL SÁNCHEZ-PIÑERO, Cristina Pernas-Castaño, Natalia Novo-Quiza, Jorge Moreda-Piñeiro, Soledad Muniategui-Lorenzo, Purificación López-Mahía | University of La Coruña

AH eP3 003 Multi-Sensor Personal PM Exposure Monitoring Campaign_ The case of Region of Attica
DEMETRA PARDALI, T. Maggos, A. Stamatelopoulou, D. Saraga, M.N. Asimakopoulos, D. Sarigiannis | Atmospheric Chemistry & Innovative Technologies Laboratory, INRASTES, NCSR «Demokritos»

AH eP3 004 Indoor exposure to ultrafine particles: construction of an Activity-Exposure Matrix
SABYNE AUDIGNON-DURAND, Oilvier Ramalho, Corinne Mandin, Olivier Le Bihan, Olivier Favez, Fleur Delva, Aude Lacourt | INSERM-BPH U 1219-EPICENE

AH eP3 005 Large-scale personal monitoring of air pollution among pregnant women: the BiSC cohort
IOAR RIVAS, Paula de Prado, Beatriz Jurado, Berta Miralles, Cecilia Persavento, Mar Álvarez-Pedrerol, Mark Nieuwenhuijsen, Cathryn Tonne, Teresa Moreno, Elisa Llurba, Maria Dolors Gómez-Roig, Maria Foraster, Xavier Querol, Payam Dadvand, Jordi Sunyer | ISGlobal

AH eP3 006 Simulation of the possible spread in atmosphere of aerosol particles during an accidental release from a SARS-CoV-2 source
Natalya Lapteva, ALEKSANDR SAFATOV | FBRI SRC VB «Vector» of Rospotrebnadzor

AH eP3 007 Concentration and source apportionment of black carbon in various microenvironments, Vilnius, Lithuania
ABDULLAH KHAN, Sergej Šemčuk, Agnė Minderytė, Steigvilė Byčenkienė | Department of Environmental Research, Center for Physical Sciences and Technology, Vilnius, Lithuania

AH eP3 008 Indoor PM2.5 in a woodburning town in New Zealand
GUY COULSON, Ian Longley, Elizabeth Somervell, Gustavo Olivares | National Institute of Water and Atmospheric Research

AH eP3 009 Elemental analysis of particulate matter in a metal workshop
ANTONELLA BULJAT, Marija Čargonja, Darko Mekterović | University of Rijeka, Faculty of Physics

AH eP3 010 Joint analysis of gross alpha/beta activities and metals composition in airborne dust samples
Elisa Gordo Puertas, Gabriel Castelló Ortega, CRISTINA GONZÁLEZ-MARTÍN, Francisco Hernández Suárez, Pedro A. Salazar Carballo, María López-Pérez, Teodoro Ramírez Cárdenas, Esperanza Liger Pérez | Universidad De La Laguna

VIRTUAL POSTERS — Thursday, 8 September 2022

AH eP3 011 Physio-chemical characterization of Na-K eutectic alloy combustion in an open atmosphere
AMIT KUMAR, R. Ananthanarayanan, P. N. Sujatha, S. Krishanakumar, P. Usha, V. Subramanian, S. Chandramouli, M. Sivaramakrishna, B. K. Nashine, B. Venkatraman | Indira Gandhi Center for Atomic Research

AH eP3 012 Comparison of the chemical profiles of qUFP aerosols from heavy-duty machinery using different fuel types in a confined working environment
NADINE GAWLITTA, Jürgen Orasche, Genna-Leigh Geldenhuys, Gert Jakobi, Bernhard Michalke, Jürgen Schnelle-Kreis, Thomas Gröger, Patricia B.C. Forbes, Ralf Zimmermann | Helmholtz Munich

AH eP3 013 Deposition of Inhaled Particles: The Influence of Particle Hygroscopicity
ERWIN W. KARG, Anusmita Das, Ralf Zimmermann, George A. Ferron | Helmholtz Center Munich

AH eP3 015 Understanding the particle toxicity of traffic aerosols using roadway tunnel studies
SHREYA DUBEY, Nagendra Raparthi, Kamlika Gupta, Sohana Debbarma, Harish Phuleria | Indian Institute of Technology Bombay

AH eP3 016 The role of aerosols in highly pathogenic avian influenza virus early detection and transmission
FABIEN FILAIRE, Nicolas Gaide, Kateri Bertran, Aurélie Sécula, Laetitia Lebre, Charlotte Foret-Lucas, Rosa Valle, Albert Perlas, Miquel Nofrarias, Guillermo Cantero, Timothée Vergne, Mathilde Paul, Guillaume Croville, Natalia Majo, Jean Luc Guerin | ENVT

AH eP3 017 Comparison of diesel particle matter measurement methods for occupational exposure assessment in underground mines
Hanna Koponen, Maija Leppänen, Laura Kilpeläinen, Paula Jussheikki, Marko Hyttinen, Pertti Pasanen, OLLI SIPPULA | University of Eastern Finland, Department of Environmental and Biological Sciences

AH eP3 018 Construction of a system to assess the toxicological impact of gas and particle phase of dibutylphthalate on human lung cells
STEPHANIE BINDER, Narges Rastak, Martin Sklorz, Sebastian Oeder, Ralf Zimmermann | HMGU CMA

AMT eP1

Instrumentation for aerosol characterization

AMT eP1 001 Characterization of a single beam gradient force aerosol optical tweezer
YUELING CHEN, Xiangyu Pei, Huichao Liu, Yao Song, Zhengning Xu, Zhibin Wang | Zhejiang University

AMT eP1 002 Small-sized electrostatic PM2.5 monitor with a quartz crystal microbalance for environmental measurement drones
NHAN DINH NGO, Woojin Park, Jaesung Jang | Ulsan National Institute of Science and Technology

AMT eP1 003 Chemical composition and origin of PM10 using online XRF technique near industrial estates of SW of Spain
JESÚS D DE LA ROSA, María Millán Martínez, Ana M Sánchez de la Campa, Danie Sánchez-Rodas | University of Huelva

AMT eP1 005 Synchrotron-based single-particle techniques for 3D morphology and metal oxidation states of atmospheric aerosols
LI-HAO YOUNG, Wan-Yi Chen, Chun-Chieh Wang, Mau-Tsu Tang, Shao-Chin Tseng, Bi-Hsuan Lin, Li-Ting Wang, Wei-Jia Li, Tzu-Ting Yang, Yao-Tung Lin | Aerosol and Air Quality Research

AMT eP1 006 A unique laboratory aerosol Pi-polarimeter for quantitative lidar particles depolarization ratios retrievals
DANAËL CHOLLETON, Patrick Rairoux, Alain Miffre | Institute of Light and Matter

AMT eP1 007 Real time calibration challenges for low-cost air quality sensor networks
EVANGELOS BAGKIS, Theodosios Kassandros, Evangelos Bagkis | Environmental Informatics Research Group, School of Mechanical Engineering, Aristotle University of Thessaloniki

AMT eP1 008 Method Optimization and Physico-chemical characterisation of UFPs
DEEKSHA SHUKLA, Juergen Orasche, Nadine Gawlitta, Elisabeth Eckenberger, Anke Nölscher, Ralf Zimmermann | Helmholtz Zentrum München

AMT eP1 009 Numerical study of laminar-flow water condensational particle growth without the conditioner
JUNBEOM JANG, Wonyoung Jeon, Jaesung Jang | Ulsan National Institute of Science and Technology (UNIST)

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AMT eP1 010 The REDMAAS 2021 intercomparison campaign for CPC and SMPS
MAR SORRIBAS, F.J. Gómez-Moreno, E. Alonso-Blanco, B. Artiñano, M. Fernández-Amado, M. Piñeiro Iglesias, P. López-Mahía, J. Andrade-Garda, L. Chas-Álvarez, S. Suárez-Garaboa, M. Yela, L. Alados-Arboledas, F.J. Olmo, J.A. Casquero-Vera, A. Casans, T. Tritschen, E. Latorre Tarrasa | National Institute for Aeroespace Technology (INTA)

AMT eP1 011 Performance and intercomparison of multi-wavelengths photoacoustic absorption spectrometers (PAAS) during a series of burning experiments
LISA KATTNER, Robin Lewis Modini, Martin Schnaiter, Claudia Linke, Luka Drinovec, Grisa Mocnik, David Bell, Jun Zhang, Jannis Röhrbein, Matthias Oscity, Ernest Weingartner, Harald Saathoff, Feng Jiang, Martin Gysel-Beer | Paul Scherrer Institute

AMT eP1 012 High-throughput Mixing-flow Condensation Aerosol Collector (MCAC): Performance Evaluation and Application to Microscopy and Optical Spectroscopies
ORTHODOXIA ZERVAKI, Dionysios D. Dionysiou, Pramod Kulkarni | University of Cincinnati

AMT eP1 013 Expanding volatility calibration range of FIGAERO-ToF-CIMS
ARTTU YLISIRNIÖ, Noora Hyttinen, Zijun Li, Iida Pullinen, Siegfried Schobesberger | University of Eastern Finland

AMT eP1 014 Chromium speciation in PM2.5 near a stainless-steel factory in Southwestern Spain
María Millán-Martínez, Ana María Sánchez de la Campa, Jesús Damián de la Rosa, DANIEL ALEJANDRO SÁNCHEZ-RODAS | University of Huelva

AMT eP1 015 Extraction of nanoparticles' morphological information from scanning electron microscopy
PAWEŁ KOZIKOWSKI, P. Sobiech | Central Institute for Labour Protection – National Research Institute

AMT eP1 016 Crowd-sourcing PM2.5 emission inventory data: an experience from Indian city
ARINDAM ROY, Athanasios Nenes, Satoshi Takahama | EPFL

AMT eP2

Measurement techniques

AMT eP2 001 Interpretation of Particle Number Concentration and Size Distribution at Multiple Sites in the UK
SENY DAMAYANTI, Roy.M Harrison, David.C Beddows, Siqi Hou, Francis Pope | University of Birmingham

AMT eP2 003 Long-term trends in the Aerosol Optical Depth obtained across the globe using Multi-satellite measurements
GOPIKA GUPTA, M. Venkat Ratnam, B. L. Madhavan, C. S. Narayanamurthy | National Atmospheric Research Laboratory

AMT eP2 004 Intercomparison of Black Carbon and Elemental Carbon Concentrations with Three-year Continuous Measurement in Beijing, China
XIAOMENG LIU, Mei Zheng | Peking University

AMT eP2 005 Characterization of tandem aerosol classifiers for selecting particles: implication for eliminating multiple charging effect
YAO SONG, Xiangyu Pei, Huichao Liu, Jiajia Zhou, Zhibin Wang | Zhejiang University

AMT eP2 006 A mass and mobility-based system for monitoring the chemical and structural state of nanoparticles
NABIL ABOMAILEK RUBIO, Spyros Bezantakos, Anne Maisser, Andreas Schmidt-Ott, George Biskos | The Cyprus Institute

AMT eP2 007 Development of the low-temperature hygroscopicity tandem differential mobility analyzer (Low-T HTDMA) and its application for (NH4)2SO4 and NaCl particles
MANQIU CHENG, Mikinori Kuwata | Peking University

AMT eP2 008 High flow rate and high collection efficiency electrostatic particle concentrator with wire electrodes
JAEGIL LEE, Jaesung Jang | UNIST

AMT eP2 009 PMx monitoring in mining by means of mobile low-cost sensors: The case of Riotinto (Huelva, Spain)
ADRIÁN ZAFRA PÉREZ, Carlos Boente, Ana Sánchez de la Campa, Jesús Damián de la Rosa | Universidad De Huelva

AMT eP2 010 DronAIR project: Optimizing air quality monitoring methodologies using UAV systems
JOANA LAGE, P. Santana, S.M. Almeida | Instituto Superior Técnico/University of Lisbon

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AMT eP3

Novel and low cost instrumentation

AMT eP3 001 Flame Spray Pyrolysis as a pre-screening tool for Sustainable Aviation Fuel Development
JASON SCOTT, Reza Kholghy, Prem Lobo | Carleton University

AMT eP3 002 Feasibility of low-cost technologies on simultaneous PM2.5 and AOD measurements at a typical East Mediterranean site
GEORGIOS KOSMOPOULOS, John Volckens, Bonne Ford, Eric Wendt, Casey Quinn, Andreas Kazantzidis | University of Patras

AMT eP3 003 Design and implementation of autonomous low-cost measuring devices of aerosol concentration
DIEGO NESCOLARDE, Nuria Galindo, Eduardo Yubero | Miguel Hernandez University

AMT eP3 004 Lab-on-a PCB based bio-aerosol sampler using electrostatic precipitation collection and electro-wetting transportation method for multi-point sampling
Hyun Jun Cho, SEONG-JAE YOO | Yonsei University

AMT eP3 005 A bipolar chemical ionization mass spectrometer to detect aerosol precursors of a wide volatility range, composition and functionality
MARKUS LEIMINGER, Tobias Reinecke, Markus Müller, Tobias Fügenschuh, Alfons Jordan, Lukas Märk | Ionicon Analytik Gmbh

AMT eP3 006 Elemental quantification of particulate matter by direct analysis of air filters by X-ray fluorescence under grazing incidence
PAOLA CIRELLI, Fabjola Bilo, Laura Borgese | University of Brescia

AMT eP3 007 Analysis of Atmospheric Organic Aerosol with a Novel Thermal Desorption Gas Chromatograph infiTOF Mass Spectrometer (TD-GC-infiTOF)
MICHAEL WALKER, Siqin He, Minoru Kano, Brent Williams | Washington University in St. Louis

AMT eP3 008 First Results from the Groundbased Fog and Aerosol Spectrometer
DARREL BAUMGARDNER, Dagen Hughes | Droplet Measurement Technologies

AMT eP3 009 Long-term measurements with the four wavelengths Photoacoustic Aerosol Absorption Spectrometer PAAS-4λ in the Finnish Arctic
FRANZ MARTIN SCHNAITER, Henri Servomaa, Eija Asmi, Sho Ohata, Yutaka Kondo, Antti-Pekka Hyvärinen | Karlsruhe Institute of Technology

AMT eP3 010 Long-term field calibration of low-cost Sensirion SGP30 MOS VOCs sensors
Gung-Hwa Hong, Hung-Wen Cheng, Guan-Yu Lin, Thi-Cuc Le, Jhi Yuan Yu, CHUEN-JINN TSAI | National Yang Ming Chiao Tung University

AMT eP3 011 Characterization of a new real-time atmospheric particle analyzer: AeroTape (AT)
ADRIEN REYNAUD, Roland Sarda-Esteve, Dominique Filippi, Dominique Baisnee, Benjamin Guinot, Jean Sciare, David O'Connor | Oberon Sciences

AMT eP3 012 Laboratory and field testing of a new condensation particle counter
JOONAS ENROTH, Joonas Vanhanen, Tuukka Petäjä | AIRMODUS

ATAS eP1

Aerosol chemistry

ATAS eP1 001 In-situ measurement of NH3 effect on secondary aerosol formation potential using a flow reactor: agricultural area of livestock and crop
FAWAD ASHRAF, Jun-Hyun Park, Ahsan Ali, Ho-Jin Lim | Kyungpook National University

ATAS eP1 002 Effect of relative humidity on SOA formation from aromatic hydrocarbons: implications from the evolution of gas- and particle-phase species
TIANZENG CHEN, Biwu Chu, Hong He | Research Center for Eco-environmental Sciences, Chinese Academy of Sciences

ATAS eP1 003 Field Observation of Hydroxymethanesulfonate (HMS) during the Spring Dust Events in Beijing, China
YUNZHI XU, Tao Ma, Fengkui Duan, Kebin He | Tsinghua University

ATAS eP1 004 The mechanism of significant reductions of ozone by ship's emissions of high concentration NOX: A case study
Zhe Song, SHAOCAI YU, Xue Chen, Zhen Li, Yibo Zhang, Mengying Li, Pengfei Li | Zhejiang University

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ATAS eP1 005 A 5-Year correlation study of submicron organic aerosols and temperature in rural-forestry environment
TOUQEER GILL, Julija Pauraitė, Steigvilė Byčenkienė, Kristina Plauškaitė | Center for Physical Sciences and Technology

ATAS eP1 006 Evolution of Black Carbon Particles Observed with Ambient Measurement Coupled with Chamber Study
Yu-Ting Chen, Che-An Wu, Yi-Da Li, TA-CHIH HSIAO | National Taiwan University

ATAS eP1 007 A non-targeted approach for tandem mass spectrometry analysis of molecular composition in organic aerosols
YIBEI WAN, Chong Xing | China University of Geosciences

ATAS eP1 008 Tuning sampling and analysis strategies for UFP: Laboratory and field tests with selected anthropogenic and biogenic marker components
ELISABETH ECKENBERGER, Sophia Kraft, Anusmita Das, Deeksha Shukla, Nadine Gawlitta, Juergen Orasche, Jürgen Schnelle-Kreis, Martin Sklorz, Ralf Zimmermann , Anke Christine Noelscher | University Bayreuth

ATAS eP1 009 Hydrolysis reaction of NO2 promoted by high ionic strength in aerosol particles
Yui Sasaki, Atsushi Matsuki, MASAO GEN | Tohoku University

ATAS eP1 010 Exploring sources, formation, and evolution processes for organic aerosol observed at Chacaltaya Mountain Station (5240 m a.s.l., Bolivia) by combining molecular composition with air mass source regions
CHENG WU, Angela Buchholz, Diego Aliaga, Yvette Gramlich, Federico Bianchi, Wei Huang, Victoria A. Sinclair, Marcos Andrade, Claudia Mohr | University of Gothenburg

ATAS eP1 011 Evaluation of ozone production to precursor changes during and after lockdown in five Indian cities of Indo Gangetic Plain
SIMRAN BAMOLA, Anita Lakhani | Dayalbagh Educational Institute

ATAS eP1 012 Effect of pH and solar radiation on live bacteria and their biodegradation of carboxylic acid in cloud water
Yushuo Liu, Patrick Lee, THEODORA NAH | City University of Hong Kong

ATAS eP1 013 A real-time approach for the source apportionment of fine organic and inorganic atmospheric aerosols
MANOUSOS MANOUSAKAS, Lu Qi, Qiyuan Wang, Tianqu Cui, Jie Tian, Yang Chen, Yuemei Han, Markus Furger, Jay G. Slowik, Kaspar Daellenbach, Junji Cao, André S.H. Prevot | Postdoc, Paul Scherrer Institute

ATAS eP2

Source apportionment and air quality

ATAS eP2 001 City-level air quality improvement in the Beijing-Tianjin-Hebei region from 2016/17 to 2017/18 heating seasons: attributions and process analysis
Yibo Zhang, SHAOCAI YU, Xue Chen, Mengying Li, Zhen Li, Zhe Song, Pengfei Li | Zhejiang University

ATAS eP2 002 Switching to electric vehicles can lead to significant reductions of PM2.5 and NO2 across China
SHAOCAI YU, Liqiang Wang, Xue Chen, Yibo Zhang, Mengying Li, Pengfei Li , Linhui Jiang, Yan Xia, Zhen Li, Jiali Li, Lu Wang, Tangyan Hou | Zhejiang University

ATAS eP2 003 Carbonaceous components of PM1 at a suburban site in southeastern Spain
ALBA LÓPEZ CARAVACA, J. F. Nicolás, J. Crespo, E. Yubero, N. Galindo, A. Clemente, R. Castañer | Miguel Hernández University

ATAS eP2 004 Assessment of waste burning pollution contribution to air quality in Bucharest, Romania
LUMINITA MARMUREANU, C. Marin, B. Antonescu, S. Andrei, J. Vasilescu, D. Ene | INOE

ATAS eP2 005 Seasonal Variation in PM2.5 and Influence of Socioeconomic Suppression in Ho Chi Minh City, Vietna
THI MINH NGOC TRAN, Yusuke Fujii, Xuan Vinh Le, Doan Thien Chi Nguyen, Hiroshi Okochi, Thi Hien To, Norimichi Takenaka | Osaka Prefecture University

ATAS eP2 006 Atmospheric phosphorus characterization by 31P-NMR during dust events and bioavailability implications
KALLIOPI VIOLAKI, Christos Panagiotopoulos, Claudia Esther Avalos, Laura Piveteau, Athanasios Nenes | LAPI/EPFL

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ATAS eP2 007 Analysis of biomass burning sources based on organic tracers in PM2.5 during fall in Fukui City, Japan
KYOHEI KAWAMURA, Mitsuhiko Hata, Fumikazu Ikemori, Masami Furuuchi | Fukui Prefectural Institute of Public Health and Environmental Science

ATAS eP2 008 PM1 source apportionment in a Mediterranean Port City in summer using metallic trace elements
LISE LE BERRE, Benjamin Chazeau, Brice Temime-Roussel, Grazia Maria Lanzafame, Alexandre Armengaud, Stéphane Sauvage, Léonidas Ntziachristos, Nicolas Marchand, Barbara D'Anna, Henri Wortham | LCE, CNRS, Aix-Marseille University

ATAS eP2 009 Chemical characterization and source apportionment of particulate material in São Carlos, São Paulo, Brazil
Rita de Kássia S do Nascimento, JONATAS SCHADECK CARVALHO, João Vítor F R F Cintra, Roberta C Urban | Federal University of São Carlos

ATAS eP2 010 The impact of COVID-19 pandemic on air pollutants emissions in São Paulo State, Brazil
JONATAS SCHADECK CARVALHO, Gabriel M. Ferraz, Hugo L. I. Betim, Rita de Kássia S. do Nascimento, Caroline Scaramboni, Roberta C. Urban | Federal University of São Carlos

ATAS eP2 011 Changes in concentrations, sources of VOCs and their contributions to ozone formation during 2020 COVID-19 pandemic in New York City
MD AYNUL BARI, Travina Quamina, Marco Eugene | University At Albany, State University of New York

ATAS eP2 013 Evaluation of air quality changes in a Chinese megacity over 2006 – 2021 using PM2.5 receptor modelling
ANNA CANALS, WeiWei Lv, Xinguo Zhuang, Yunfei Shangguan, Xueming Zhou, Yanxin Wang, Shaofei Kong, Andrés Alastuey, Barend van Drooge, Xavier Querol | CSIC

ATAS eP2 014 Identification of the urban plume influence at Chacaltaya station in Bolivia using aerosol nitrate as a tracer
SAMARA CARBONE, Lorrany Mota, Fernando Velarde, Marcos Andrade, Isabel Moreno, Federico Bianchi, Liine Heikkinen, Claudia Mohr, Cristina Facchini, Stefania Gilardoni, Paulo Artaxo | Federal University of Uberlandia

ATAS eP2 015 Chemical composition and source apportionment of PM2.5 in a complex industrial site of SW Spain
AM Sánchez de la Campa, María Millán Martínez, Daniel Sánchez-Rodas, JESÚS D DE LA ROSA | University of Huelva

ATAS eP2 016 Source apportionment of aerosol number size distributions using positive matrix factorization in a street canyon
SAMI HARNI, S. Saarikoski, M. Aurela, J.V. Niemi, A. Kousa, H. Manninen, H. Timonen | Finnish Meteorological Institute

ATAS eP2 017 Insights about the sources of PM2.5 in an urban area from measurements of a low-cost sensor network
GEORGIOS KOSMOPOULOS, Vasilis Salamalikis, Angeliki Matrali, Spyros Pandis, Andreas Kazantzidis | University of Patras

ATAS eP2 018 Characterization of PM2.5 mass concentration spatiotemporal variability and their potential sources in a suburban area of North Greece
GEORGIOS KOSMOPOULOS, Andreas Kazantzidis | University of Patras

ATAS eP2 019 Integration of isotopic techniques and ion beam analysis for the characterization of the PM2.5 aerosol fraction monitored at a suburban site of the Central Mediterranean area
SALVATORE ROMANO, Susy Pichierri, Mattia Fragola, Alessandro Buccolieri, Gianluca Quarta, Lucio Calcagnile | University of Salento

ATAS eP2 020 Illumining an obscured contribution of sea spray aerosol to marine cloud nuclei
WEI XU, Jurgita Ovadnevaite1, Kirsten Fossum, Chunshui Lin, Darius Ceburnis, Colin O'Dowd | NUI Galway

ATAS eP2 021 Using different versions of the handbook of emission factors for road traffic (HBEFA) in air quality modelling: statistical analysis of the effects
Lisa Rogalla, Natascha Beck, Andreas Weidmann-Rose, Winfried Straub, Andreas Brandt, Thomas Schulz, Sebastian Schubert, SABINE WURZLER | LANUV NRW

ATAS eP2 023 Evaluation of carbonaceous aerosols and water-soluble inorganic ions in ultrafine and fine particles during winter in urban areas of Vietnam
Truong-Thi Huyen, Kazuhiko Sekiguchi, Ly-Bich Thuy, Nghiem-Trung Dung | Saitama University

ATAS eP2 024 Distribution characteristics and source identification of nitro-polycyclic aromatic hydrocarbons and oxy-polycyclic aromatic hydrocarbons in ambient air at five sites in Northeast Asia
JUNGMIN JO, Zihui Teng, Ki Ae Kim, Ji Yi Lee, Yun Gyong Ahn, Kyoung Soon Jang, Zhijun Wu, Amgalan Natsagdorj, Atsushi Matsuki | Ewha Womans University

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ATAS eP2 025 First in-situ vertical characterization of atmospheric aerosols on-board an unmanned aerial vehicle at El Arenosillo (Huelva, Spain)
MAR SORRIBAS, Jose Antonio Bogeat-Piqueras, Marta María Jiménez-Martín, Luis Amor, Ricardo Borovia, Álvaro Gómez-Villegas, Margarita Yela | National Institute for Aeroespace Technology (INTA)

ATAS eP2 026 Secondary Aerosol-Precursor Relationships in the United Kingdom
ROY HARRISON, David Beddows, Seny Damayanti | University of Birmingham

ATAS eP2 027 Spatio-temporal trends of the relationship between surface PM2.5 and its chemical constituents across three locations in India: A mass closure investigation
DELWIN PULLOKARAN, Ramya Sunder Raman, Ankur Bhardwaj, Deeksha Shukla, Diksha Haswani, Jawed Iqbal, Abisheg Dhandapani, Naresh Kumar R, Sadashiva Murthy BM, Laxmi Prasad, Prabhavathi Venkatesh | Indian Institute of Science Education and Research Bhopal

ATAS eP2 030 Can we reliably use satellite derived AOD to estimate annual changes in PM2.5 concentrations during 2020 (Year with COVID induced lockdown)?
PREM MAHESHWARKAR, Nirdesh Maravi | Interuniversity Laboratory of Atmospheric Systems

ATAS eP2 031 The influence of COVID-19 pandemic on PM2.5 air quality in Northern Taiwan during Q1 2020 to Q2 2021
Thi-Thuy-Nghiem Nguyen, Thi-Cuc Le, Sheng-Hua Chen, Yi-Hsuan Li, Yu-Ting Sung, C.H. Wu, CHUEN-JINN TSAI | National Yang Ming Chiao Tung University

ATAS eP2 032 Spatiotemporal variability of PM sources in Cyprus
ELIE BIMENYIMANA, Minas Iakovides, Michael Pikridas, Konstantina Oikonomou, Emily Vassiliadou, Chrysanthos Savvides, Nikos Mihalopoulos, Jean Sciare | The Cyprus Institute

ATAS eP2 033 Sources and characteristics of wintertime carbonaceous aerosols in Brahmaputra Valley
ADNAN QADRI, Gyanesh Singh, Tarun Gupta, Shahadev Rabha, Nazrul Islam, Binoy Saikia IIT Kanpur

ATAS eP2 034 Characterization of fine particulate polycyclic aromatic hydrocarbons measured in an Indian roadway tunnel and their emission factors
SOHANA DEBBARMA, Chandra Venkataraman, Harish C. Phuleria | Indian Institute of Technology Bombay

ATAS eP2 035 Use of error covariance information for source apportionment application: A comparative evaluation
NIRAV LEKINWALA, Mani Bhushan | Indian Institute of Technology Bombay

ATAS eP2 036 Implications from chemical profiles of particle emissions released from residential combustion of brown coal briquettes compared to spruce logwood
PATRICK MARTENS, Hendryk Czech, Jürgen Orasche, Gülcin Abbaszade, Bernhard Michalke, Jarkko Tissari, Mika Ihalainen, Heikki Suhonen, Pasi Yli-Pirilä, Martin Sklorz, Jorma Jokiniemi, Olli Sippula, Ralf Zimmermann | Universität Rostock

ATAS eP2 037 Ground-based measurement site categorization by airmass source area properties
TUOMO NIEMINEN, Janne Heiskanen, Ville Leinonen, Santtu Mikkonen, Taina Yli-Juuti | University of Helsinki

ATAS eP2 038 Characterization of Fossil and Contemporary Carbon Contents in Submicron Atmospheric Aerosols in the Eastern Mediterranean Sea
CHANDRA MOULI PAVULURI, Nikolaos Mihalopoulos, Masao Uchida, Kanako Mantoku, Pingqing Fu, Kimitaka Kawamura | Tianjin University

ATAS eP2 039 Identification and analysis of characteristic particle number size distributions at an urban measurement site in Duesseldorf by means of cluster analysis
TIM KRAMER, Konradin Weber | Hochschule Düsseldorf University of Applied Scienes (HSD)

ATAS eP3

Aerosols, clouds, and new particle formation

ATAS eP3 001 Contribution of fluorescent aerosols to ice nucleating particles in the Arctic
IVO BECK, Jessie Creamean, Nora Bergner, Lauriane Quélever, Tiia Laurila, Tuija Jokinen, Kevin Barry, Thomas Hill, Julia Schmale | École Polytechnique Fédérale de Lausanne

ATAS eP3 002 Pan-Arctic seasonal cycles and long-term trends of aerosol properties from ten observatories
JULIA SCHMALE, Sangeeta Sharma, Stefano Decesari, Jakob Pernov, Andreas Massling, HC Hansson, Knut von Salzen, Henrik Skov, Elisabeth Andrews, Patricia Quinn, Lucia Upchurch, Konstantinos Eleftheriadis, Rita Traversi, Stefania Gilardoni, Mauro Mazzola, James Laing, Philip Hopke | EPFL

ATAS eP3 003 A detailed assessment of the contribution of aerosols to Global Dimming and Brightening using a radiative transfer model and MERRA-2 aerosol optical properties
MICHAEL STAMATIS, Nikolaos Hatzianastassiou, Marios-Bruno Korras-Carraca, Christos Matsoukas, Martin Wild, Ilias Vardavas | University of Ioannina

ATAS eP3 004 Survival probabilities of atmospheric particles: comparison based on theory, cluster population simulations, and observations from Beijing
SANTERI TUOVINEN, Runlong Cai, Veli-Matti Kerminen, Jenni Kontkanen, Markku Kulmala | INAR/Physics, University of Helsinki

ATAS eP3 005 Characterization of particle size-distributions and new particle formation events in an urban and coastal site of the Mediterranean area
ADELAIDE DINOI, Daniel Gulli, Kay Weinhold, Ivano Ammoscato, Claudia Calidonna, Alfred Wiedensohler, Daniele Contini | ISAC-CNR

ATAS eP3 006 Impact of the direct and indirect effects of prognostic aerosols on the prediction of photovoltaic power generation
JOCHEN FÖRSTNER, Nikolas Porz, Ali Hoshyaripour, Axel Seifert, Florian Filipitsch, Annette Wagner, Vanessa Bachmann, Heike Vogel, Thomas Hanisch, Anika Rohde | Deutscher Wetterdienst

ATAS eP3 007 Proxy for accumulation mode particle concentrations using machine learning and reanalysis data
AINO OVASKA, Ella Rauth, Daniel Holmberg, Benjamin Bergmans, Don Collins, Aijun Ding, Marco Aurélio Franco, Tareq Hussein, Antti Hyvärinen, Richard Leaitch, Nikolaos Michalopoulos, Colin O'Dowd, Moa Sporre, Peter Tunved, Vidmantas Ulevicius, Alfred Wiedensohler, Vladimir Zdimal, Risto Makkonen, Kai Puolamäki, Tuomo Nieminen, Pauli Paasonen | Institute for Atmospheric and Earth System Research, University of Helsinki

ATAS eP3 008 How can we simplify cloud droplet activation in a global aerosol climate model?
ULRIKE PROSKE, Sylvaine Ferrachat, Ulrike Lohmann | ETH Zürich

ATAS eP3 010 Adsorption Nucleation Theory for Heterogeneous Ice Nucleation
MARIA LBADAOUI-DARVAS, Athanasios Nenes, Ari Laaksonen | EPFL

ATAS eP3 011 Association of new particle formation to air mass history in Hyderabad
Mathew Sebastian, Oishi Chakraborty, VIJAY P KANAWADE | University of Hyderabad

ATAS eP3 012 Reduction in anthropogenic emission suppressed new particle formation and growth: Insights from the COVID-19 lockdown
VIJAY KANAWADE, Methew Sebastian, Prasad Dasari | University of Hyderabad

ATAS eP3 013 Consequences of exceptionally warm winter 2019-2020 on ecosystem-atmosphere interactions in boreal forest
ILONA YLIVINKKA, Lauri Ahonen, Juho Aalto, Pasi Kolari, Jaana Bäck, Veli-Matti Kerminen, Markku Kulmala | University of Helsinki / INAR

ATAS eP3 014 Atmospheric new particle formation in the Scandinavian and Siberian boreal forest area
Helmi Uusitalo, Jenni Kontkanen, Ilona Ylivinkka, Ekaterina Ezhova, Anastasiia Demakova, Mikhail Arshinov, Boris Belan, Denis Davydov, Nan Ma, Tuukka Petäjä, Alfred Wiedensohler, Markku Kulmala, TUOMO NIEMINEN | University of Helsinki

ATAS eP4

Atmospheric aerosol transport and modelling

ATAS eP4 001 Optical properties of volcanic aerosols transported over the Atlantic from the Cumbre Vieja eruption
YENNY GONZALEZ RAMOS, Bighnaraj Sarangi, Africa Barreto, Sergio Rodriguez, Olga L. Mayol-Bracero, Carlos L. Marrero, Carlos Torres, Maria Fernanda Sanchez-Barrero, Ioana Popovici, Lelia Pronieswki, Stephane Victori, Fernando A. Almansa, Ramon Ramos, Emilio Cuevas | Cimel Electronique

ATAS eP4 004 Assimilation of satellite observed aerosol optical thickness with the Local Ensemble Transform Kalman Filter
TIE DAI, Yueming Cheng, Daisuke Goto, Junji Cao, Guangyu Shi, Teruyuki Nakajima | Institute of Atmospheric Physics, Chinese Academy of Sciences

ATAS eP4 005 Does the expansion of urban areas aggravate air pollution in North China Plain (NCP)?
QIAN JIANG, Guohui Li | Institute of Earth Environment, Chinese Academy of Sciences

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ATAS eP4 006 Biomass-burning aerosol direct radiative effects over Europe using detailed optical properties from the chemical transport model PMCAMx-SR
MARIOS BRUNO KORRAS-CARRACA, Ksakousti Skyllakou, Dimitris Manetas, Christos Matsoukas, Nikolaos Hatzianastassiou, Ilias Vardavas, Spyros Pandis, Athanasios Nenes | University of Ioannina

ATAS eP4 009 Dust effect on solar energy production in the European and North African regions
PANAGIOTIS KOSMOPOULOS | National Observatory of Athens

ATAS eP4 010 Aerosol absorption enhancement and mixing state in Paris, France
P. FOMBELLE, M. Zanatta, B. Holanda, O. Favez, L. Drinovec, G. Mocnik, J.-E. Petit | LSCE

ATAS eP5

Atmospheric aerosol properties and characterization

ATAS eP5 001 Quantifying on-road vehicle emissions during traffic congestions with updated LDGV emission factors and real-world traffic monitoring big data
Xue Chen, Linhui Jiang, Yan Xia, Lu Wang, Pengfei Li, SHAOCAI YU | Zhejiang University

ATAS eP5 002 A 17-year (2005-2021) climatology of sea salt aerosols on a global scale based on MODIS and OMI satellite data
ELLI MASTAKOULI, Nikos Hatzianastassiou, Maria Gavrouzou, Marios-Bruno Korras-Carraca | University of Ioannina

ATAS eP5 003 Assimilating CALIPSO aerosol extinctions to improve the simulations of global aerosol vertical structures
YUEMING CHENG, Tie Dai, Daisuke Goto, Junji Cao, Guangyu Shi, Teruyuki Nakajima | Institute of Atmospheric Physics, Chinese Academy of Sciences

ATAS eP5 004 Comparison of the Integrated Water Vapor from Diverse Retrievals at El Arenosillo (Southwest, Spain)
Marta María Jiménez-Martín, MAR SORRIBAS, Jose Antonio Adame, Carlos Toledano, Margarita Yela | National Institute for Aeroespace Technology (INTA)

ATAS eP5 005 Chemical and morphological single particles characterization of Gobi Desert dust for the complex refractive index determination from ultraviolet to TeraHertz
JEYAN BICHON, Karine Deboudt, Lise Deschutter, Hervé Herbin, Denis Petitprez, Sophie Eliet | IEMN UMR8520 CNRS

ATAS eP5 006 Synergetic study of High-Pollution Events in a medium-size city influenced by topography
SONIA CASTILLO, Pablo Ortiz-Amezcua, Gregori Moreira, Guadalupe Sánchez, Francisco José Olmo, Lucas Alados-Arboledas | Andalusian Institute for Earth System Research lista, University of Granada

ATAS eP5 007 Photo-oxidation of a-Pinene Oxidation Products in Atmospheric Waters – pH- and Temperature-Dependent Kinetic studies
AGATA KOŁODZIEJCZYK, Thomas Schaefer, Herrmann Hartmut | Institute of Physical Chemistry PAS

ATAS eP5 008 Influence of organic aerosol sources in the aerosol hygroscopicity and CCN activity during BioCloud field campaign
FERNANDO REJANO, Andrea Casans, Sonia Castillo, Juan Andres Casquero-Vera, Hassan Lyamani, Soledad Ruiz-Peñuela, Daniel Pérez-Ramírez, Paloma Cariñanos, Lucas Alados-Arboledas, Francisco José Olmo, Gloria Titos | University of Granada

ATAS eP5 009 Long-term studies of biological components of atmospheric aerosol: trends and variability
ALEKSANDR SAFATOV, Irina Andreeva, Galina Buryak, Sergei Olkin, Irina Reznikova, Boris Belan, Mikhail Panchenko, Denis Simonenkov | FBRI SRC VB «Vector» of Rospotrebnadzor

ATAS eP5 010 Comparison of methods for estimating volatilities from FIGAERO-CIMS measurements based on molecular formulae and thermograms
TAINA YLI-JUUTI, Aki Nissinen, Iida Pullinen, Siegfried Schobesberger, Angela Buchholz, Arttu Ylisirniö, Wei Huang, Annele Virtanen, Claudia Mohr | University of Eastern Finland

ATAS eP5 011 Multi-year aerosol absorption properties for an urban background site in Brussels and their relationship to meteorology, air mass origin and potential sources
ALEXANDER MANGOLD, Hugo De Backer, Karen De Causmaecker, Quentin Laffineur, Andy Delcloo | Royal Meteorological Institute of Belgium

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ATAS eP5 012 Temporal variability trend of equivalent black carbon components in Valencia (Spain)
VIOLETA MATOS TEJERA, Josep Camarasa, Sara Segura, Mar Sorribas, Víctor Estellés, M.P. Utrillas | University of Valencia

ATAS eP5 013 The anthropogenic and atmospheric influence on the Black Carbon levels at Valencia (Spain) using multiple regression analysis
VIOLETA MATOS TEJERA, Josep Camarasa, Sara Segura, Víctor Estellés, M.P Utrillas | University of Valencia

ATAS eP5 014 Air pollution and the impact of temperature inversions in Bucharest, Romania
CRISTINA ANTONIA MARIN, Luminita Marmureanu, Bogdan Antonescu, Jeni Vasilescu | National Institute of Research and Development for Optoelectronics (INOE 2000)

AT eP1

Functional nanoparticles

AT eP1 001 Numerical simulation of gas flow temperature and velocity inside an ICP-based reactor for generation of nanoparticle containing refractory elements
YONGYANG SU, Yundong Xie, Zhiming Li, Xiaofei Lan, Jiang Xu | Northwest Institute of Nuclear Technology

AT eP1 002 On the use of deep freeze homogenization for the production of defined length electrospun nanofibers
Carola Cecchi, D. Damiano, S. Pereira, F. Di Natale, L. L. F. AGOSTINHO | NHL Stenden University

AT eP1 003 The influence of flow patterns in 'Faraday 3D Nanoprinting'
Shirong Liu, JICHENG FENG | Shanghaitech University

AT eP1 004 SmartSpark: A non-visual EHDA monitoring system
MÔNICA OLIVEIRA, Doekle Yntema, Tom Poelsma, Klaus Glanzer, Luewton Agostinho | NHL Stenden, UFMG

AT eP1 005 Sintering Rate of Nickel Nanoparticles by Molecular Dynamic
HOSSEIN RAHBAR, Erini Goudeli, M. Reza Kholghy | Carleton Universiry

AT eP1 006 Cleaning of submicron-sized particles from cellulose-based paper using the CO2 snow jet
LUDMILA MASKOVA, Jiri Smolik, Vera Jandova, Lucie Ondrackova | Institute of Chemical Process Fundamentals of the CAS

AT eP1 007 One-step gas-phase fabrication of visible-light-activated TiO2 nanoparticulate thin films
Manabu Shimada, Dianping Jiang, K. Kusdianto, Masaru Kubo, MEDITHA HUDANDINI

AT eP2

Electrical effects

AT eP2 001 Laboratory study of pilot module of the compact electrostatically enhanced condensation system for pyrolysis gases
ANDREI BOLOGA, Hans-Joachim Gehrmann, Klaus Woletz, Dieter Stapf | Karlsruhe Institute of Technology

AT eP2 002 Study of corona discharge characteristics of an ionizer for a compact electrostatically enhanced condensation system for pyrolysis gases
ANDREI BOLOGA, Hans - Joachim Gehrmann, Klaus Woletz, Dieter Stapf | Karlsruhe Institute of Technology

AT eP2 003 Examining chemical composition of PM2.5 during biomass burning events and its impact on regional air quality in North India
POOJA MANWANI, Chandra Venkataraman, Harish Phuleria | IIT Bombay

AT eP3

High temperature aerosols and filtration

AT eP3 001 Effect of Flow Oscillation on the Loading Performance of Respirator Filter Media
Peng Wang, Sheng-Chieh Chen, DAREN CHEN | Virginia Commonwealth University

AT eP3 002 A mathematical model of fluid flow in nanofiber/microfiber mixed filter
RENAT MARDANOV, Elvina Panina, Shamil Zaripov | Kazan Federal University

VIRTUAL POSTERS — Thursday, 8 September 2022

AT eP4

Aerosol emissions and control technologies

AT eP4 001 Effect of temperature and applied voltage on high field type Electrostatic precipitator
KEISUKE ITOH, Daiki Ishizuka, Yuki Tanahashi, Akinori Zukeran, Keisuke Yamashiro, Yoshihiro Sakuma, Takayuki Kaneko | Kanagawa Institute of Technology

AT eP4 002 Monitoring of ultrafine particle emissions from aircraft turbine engines near runway
SALEH ALZAHRANI, Paul I. Williams , Doğuşhan Kılıç, James Allan, Michael Flynn,, Héctor L. A. Gracia, Jesus S. V. G. Moreno, Paola M. M. Gonzalez, Maria S. Garcia, Devora Hermigo, Mario Simon, Imara B. Ibarra, Jesus R. Maroto, E Rojas, D Sanz | The University of Manchester

AT eP4 005 A combined flue gas cleaning system with a novel entrained flow SCR using online synthesized catalyst particles
JANIS BEIMDIEK, Sascha Schiller, Hans-Joachim Schmid | Paderborn University

BAP eP1

Heat and mass transfer: Experiments and simulations

BAP eP1 001 Heterogeneous OH Oxidation of a-pinene derived Organosulfate: A Possible Source of Unidentified Atmospheric Organosulfates
Rongshuang Xu, Sze In Madeleine Ng, Wing Sze Chow, Yee Ka Wong, Yuchen Wang, Donger Lai, Zhongping Yao, Pui-Kin So, Jian Zhen Yu, MAN NIN CHAN | Earth System Science Programme, The Chinese University of Hong Kong

BAP eP1 002 Evolution of nitrogen-containing organic compounds from biomass burning aerosols
LIJUAN LI, Yue Lin, Jianjun Li, Xin Zhang, Zhiyu Li, Junji Cao, Yuemei Han | Institute of Earth Environment, Chinese Academy of Sciences

BAP eP1 003 Measurement of dry deposition velocity of large aerosols in a chamber
LONG BO LIU, Xiu Huan Tang, Pan Hu, Zhen Hui Ma, Bao Sheng Wang, Teng Yue Ma, Lei Tai Shi, Xin You Cai | Northwest Institute of Nuclear Technology

BAP eP3

Modelling of internal and external aerosol processes

BAP eP3 001 Exhalation and inhalation dynamics of aerosols and airborne disease transmission
JIANGHAN TIAN, Allen Haddrell, Jonathan Reid | University of Bristol

BAP eP4

Physical properties of aerosol particles

BAP eP4 001 Light absorbing properties of particulate matter from different residential wood combustion sources
SATISH BASNET, Anni Hartikainen, Aki Virkkula, Pasi Yli-Pirilä, Miika Kortelainen, Heikki Suhonen, Jarkko Tissari, Olli Sippula | University of Eastern Finland

BAP eP4 002 Physical & Optical properties of vertical distribution of Aerosols distributed in different atmospheric layers
PRATIBHA MANE | Shivaji University, Kolhapur, Maharashtra, India

SS1 eP1

Special Session-1: Quantification of health risk from airborne particulate matter

SS1 eP1 001 Information entropy tradeoffs in estimates of air pollution mortality: efficient uncertainty reduction and its environmental justice implications
MARIANA ALIFA, Stefano Castruccio, Diogo Bolster, Paola Crippa | University of Notre Dame

SS1 eP1 002 Assessment of ozone risk to vegetation for rural background area in Germany
VANESSA ENGELHARDT, Dominik van Pinxteren, Harmut Herrmann | Leibniz Institute for Tropospheric Research (TROPOS)

SS1 eP1 003 Seasonal Variation and health risk assessment of ambient PM2.5 and PM10 in an urban cities
BUDDHI PUSHPAWELA, Sherly Shelton, Gayathri Liyanage, Saduni Jayasekara, Akila Jayasundara, Lesty Jayasuriya | University of Alabama in Huntsville, USA

VIRTUAL POSTERS — Thursday, 8 September 2022

SS1 eP1 004 Evaluation of lung deposited surface area from traffic emission in the urban microenvironment
Po-Kai Chang, TA-CHIH HSIAO | National Taiwan University

SS1 eP1 005 Toxicity effects of secondary organic and metal aerosol particles on human bronchial epithelial cells after online particle deposition
ZAIRA LENI, Steven John Campbell, Kate Wolfer, Battist Utinger, Alex Barth, Julian Resch, Marianne Geiser, Markus Kalberer | University of Bern

SS1 eP1 006 Respiratory research using primary and artificially-aged reference soot aerosol
ZAIRA LENI, Michaela Ess, Alejandro Keller, Konstantina Vasilatou, Marianne Geiser | University of Bern

SS2 eP1

SS2-eP1: Special Session-2: COVID-19, aerosols and ventilation

SS2 eP1 001 Robust measurement of particle filtration efficiencies: Evaluated quantities and experimental sensitivities
TIMOTHY SIPKENS, Joel Corbin, Greg Smallwood, Andrew Oldershaw, Ian Leroux, Jalal Norooz Oliaee, Fengshan Liu, Thierry Lavoie, Triantafillos Koukoulas, Richard Green, Prem Lobo | National Research Council Canada

SS2 eP1 002 Urban air pollution declines due to COVID-19 lockdown
BUDDHI PUSHPAWELA, Sherly Shelton, Gayathri Liyanage, Saduni Jayasekara, Akila Jayasundara, Lesty Jayasuriya | University of Alabama in Huntsville, USA

SS2 eP1 003 SARS-CoV-2 and other airborne respiratory viruses in outdoor aerosols in three Swiss cities before and during the first wave of the COVID-19 pandemic
YILE TAO, Xiaole Zhang, Guangyu Qiu, Martin Spillmann, Zheng Ji, Jing Wang | ETH

SS3 eP1

Special Session-3: Advanced aerosol metrology for atmospheric science and air quality

SS3 eP1 001 The Seasonal variation of O3, and NO2 and the relation between them in two urban cities
BUDDHI PUSHPAWELA, Sherly Shelton, Gayathri G. Liyanage, Saduni Jayasekara, Akila Jayasundara, Lesty Dias Jayasuriya | University of Alabama in Huntsville, USA

SS3 eP1 002 Quantitative test of centricity of spatially distributed cascade impactor aerosol samples in Total Reflection X-ray Fluorescence (TXRF) spectroscopy
MARTIN GOTTSCHALK, Stefan Seeger | Bundesanstalt für Materialforschung und -prüfung

SS3 eP1 003 Investigation of artificial and environmental aerosol samples by X-ray fluorescence analysis under grazing incidence
ARMIN GROSS, Claudio Crazzolara, Stefan Seeger, Janos Osan, Yves Kayser, Burkhard Beckhoff | Bruker Nano Gmbh

SS4 eP1

Special Session-4: Aerosols in the agriculture and livestock sectors

SS4 eP1 001 Spray freeze drying of milk: solubility enhancement
ALBERTO BALDELLI, Hale Oguzlu, Diana Yumeng Liang, Alison Subiantoro, Meng Wai Woo, Anubhav Pratap-Singh | University of British Columbia

SS4 eP1 002 Fine particulate nitrate formation in the presence of excess ammonia at an intensive animal farming site
JOONWOO KIM, Jiho Jang, Fawad Ashraf, Ho-Jin Lim, Kihong Park | Gwangju Institute of Science and Technology (GIST)

VIRTUAL POSTERS **Thursday, 8 September 2022**

SS5 eP1

Special Session-5: Oxidative potential of aerosol particles and health risks

SS5 eP1 001 Investigating the Relationship between Mass Concentration of Particulate Matter and Reactive Oxygen Species Based on Residential Coal Combustion Source Tests
MENGXIAO LUAN, Mei Zheng | Peking University

SS5 eP1 002 Changes of oxidative stress markers among motorbike drivers working and living in polluted cities: the case of Douala and Dschang, Cameroon.
JOSEPH TIEKWE, Bruno Phelix TELEFO, Nadine Ongbayokolak, Solange Dabou, Cerge Kamhoua Natheu, Stephanie Goka, Biapa Nya Prosper, Isabella Annesi-Maesamo | University of Dschang

SS5 eP1 004 Correlations between bioaccessibility of polycyclic aromatic hydrocarbons and metals from PM10 and its oxidative potential
NATALIA NOVO QUIZA, Joel Sánchez Piñero, Jorge Moreda Piñeiro, Purificación López Mahía, Soledad Muniategui Lorenzo | University of A Coruña

SS5 eP1 005 Particle-bound reactive oxygen species in real cooking emissions: Effects of atmospheric aging and health implication
Lu Lu, Vanessa Y. Z. Ng, Melvyn Z. H. Tan, Nethmi Y. Kasthuriarachchi, Yue Qian Tan, Lina Ang, Wei Jie Seow, ALEX LEE | Environment and Climate Change Canada

SS5 eP1 006 Influence of atmospheric process on oxidative potential of submicron particles in Taiwan urban area
Li-Ti Chou, Kai-Hsien Chi, Kai-Ting Huang, Wei-Hsu Kao, TA-CHIH HSIAO | National Taiwan University

SS5 eP1 007 Oxidative potential of regional & urban background PM10, PM2.5, & PM1 in Barcelona
MARTEN IN 'T VELD, Marco Pandolfi, Fulvio Amato, Noemi Pérez, Cristina Reche, Gaëlle Uzu, Pamela Dominutti, Jean-Luc Jaffrezo, Andrés Alastuey, Xavier Querol | IDAEA-CSIC

FUTURE EVENTS

See you in...

Next EAC 2023, Malaga (Spain)
September 3 – 8, 2023

SAVE THE DATE
European Aerosol Conference
EAC 2023

www.dfmf.uned.es/EAC2023
Info: EAC2023@dfmf.uned.es

Organized by the European Aerosol Assembly
Hosted by: Spanish Association of Aerosol Science and Technology
University of Malaga
UNED

11th International Aerosol Conference

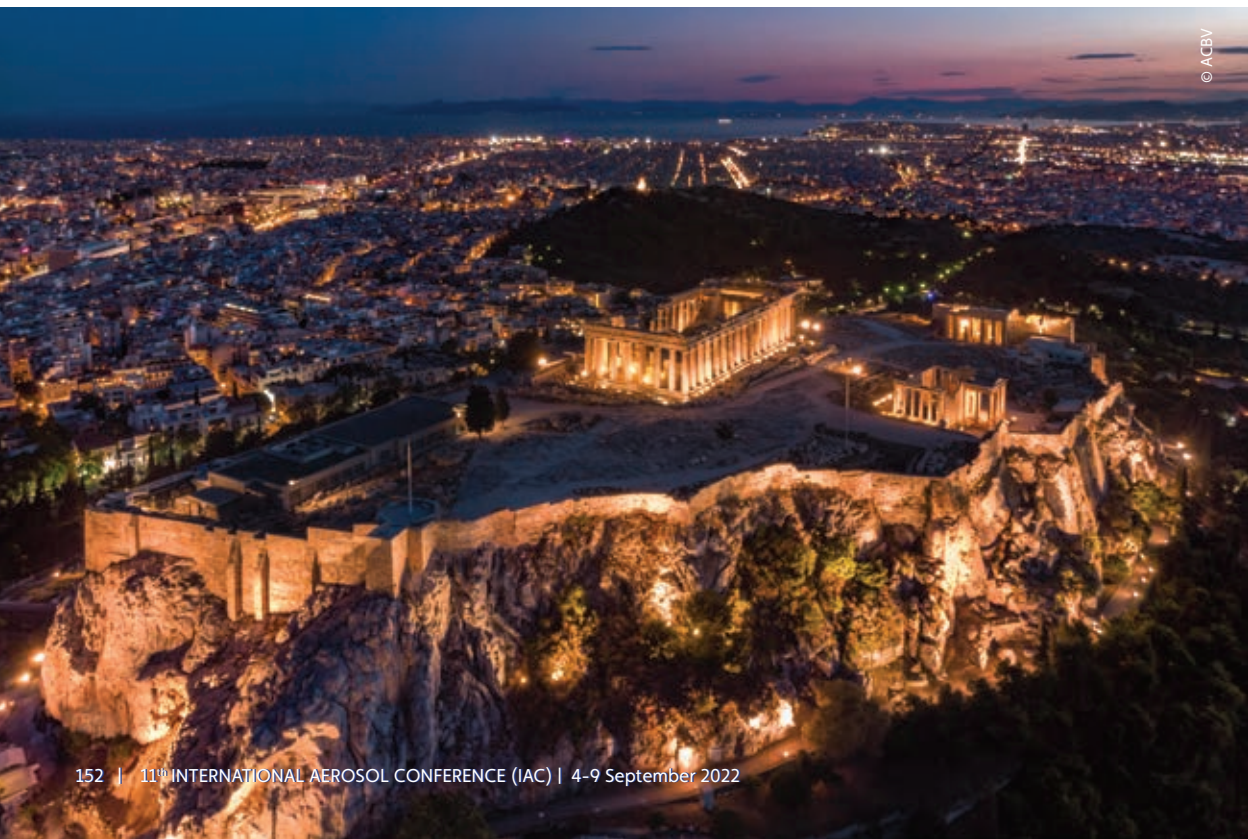
General Information

ATHENS Greece IAC 2022

About Athens

A bustling, cosmopolitan metropolis, yet the cradle of democracy and civilization, Athens is central to economic, financial, industrial, political and cultural life of Greece. Standing at the crossroads of three continents, Greece's capital has been, due its geographical position, a melting pot of different cultures, which have come together throughout its long history and still do so today. It's the land of hospitality, known since ancient times, where Greek people give a warm welcome to every visitor traveling to Athens to catch up memories to a unique destination.

Athens is a modern European city with an old-town feel; ancient monuments fuse with a trendy, cosmopolitan scene. Masterpieces of significant architectural values stand tall today in a harmonious coexistence with impressive modern buildings. But, also, is an ideal congress destination, combining state-of-the-art infrastructure, excellent congress facilities and easy access from all over the world with world-class cultural attractions, modern amenities and diverse entertainment.



MEGARON ATHENS INTERNATIONAL CONFERENCE CENTRE (MAICC)

Vas. Sofias Ave. & Kokkali St., Athens 115 21, Greece
T. +30 210 7282000

ABOUT MAICC

The MAICC is distinguished as one of the leading and most technologically advanced conference venues in Europe. A building of modern architecture, the MAICC dominates imposingly with its Doric austerity. The venue located on Vasillisis Sofias avenue, in very close distance to the city centre, yet, surrounded by its own landscaped gardens, it offers a soothing environment, beautiful aesthetics, cutting edge technology and unrivalled client service.

Right in the heart of the city, only a few minutes away from Syntagma square, the MAICC is easily accessible by all means of transportation. The Metro station is located a few meters away from the main entrance of the MAICC. It is also very close to major hotels, museums, shops, and fine restaurants, many of which are within walking distance.

The MAICC has had the privilege to host several of the most important congresses in Greece. It was designed and built with great respect to the environment and green urban planning. Furthermore, it has been incorporated subtly into the park of the complex.

The technology and stage systems incorporated into the halls are at the forefront of technology, while all sound and audiovisual systems are connected to the in-house broadcast standard recording studio, which enables sound and video recording in broadcast format.

HOW TO REACH MAICC

From the airport
you can take bus X95, or a 35 minute ride on the Metro will bring you to the venue

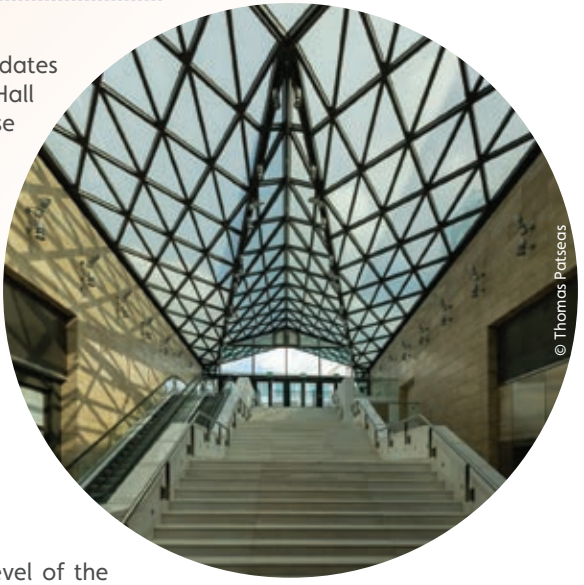
From the railway station,
it's just 30 minutes to the «Megaro Moussikis» Metro station

From Piraeus
it's just a few minutes ride on the Metro.

VENUE INFORMATION AND FACILITIES

CASH BAR

A Cash bar will be operating throughout Congress dates in the Conference venue, in the foyer of Trianti Hall (ground level). Delegates are welcome to purchase food and beverage items, at the respective costs. Kindly note that the cash bar will remain closed during official Coffee and Lunch Breaks, as well as during the Welcome Reception.



CASH POINTS

An Alpha Bank ATM machine is located inside the MAICC (Main Building entrance). Closest bank is Piraeus Bank (Address: 97, Vassilisis Sofias avenue). Banks in Greece operate daily from 08:00 to 14:00.

CLOAKROOM

A Cloakroom will be operating in the ground level of the Conference venue, in close proximity with the Registration Desk. Delegates' items (such as coats, poster cases, etc.) can be left at the Cloakroom only on a daily basis and during Conference operating hours.

FACILITIES FOR PERSONS WITH IMPAIRED MOBILITY

MAICC premises have been specifically designed to support the needs of persons with impaired mobility. All Conference areas are equipped with facilities that allow easy access, whilst specially designed restrooms, trolley bars and ramps are available in all levels.

INTERNET

Free WiFi access will be available in all Congress areas throughout the duration of the IAC 2022 Conference.

Access code: **iac2022**

LOST & FOUND

A lost and found service is available at the Cloakroom, operating near the Registrations Desk.

PARKING

The Congress venue offers a total of 750 parking spaces in a 3-story underground car-park facility.

ABSTRACT BOOK

IAC 2022 Conference abstracts have been published in electronic format and will be sent to all the registered delegates.

APP

Android devices

Search for The Event App by EventsAIR on **PlayStore**.

When you are prompted for a code upon launching the App, insert **aerosol2022**

iOS devices

Search for The Event App by EventsAIR on **AppStore**.

When you are prompted for a code upon launching the App, insert **aerosol2022**

The Mobile App will be live two weeks before the conference

CONGRESS DATES

Sunday, 4 September to Friday, 9 September 2022

CONGRESS VENUE

Megaron Athens International Conference Centre (MAICC)

Vas. Sofias avenue & Kokkali street, Athens 115 21, Greece

T. +30 210 7282000

COVID-19 PROTOCOLS

In the case of physical presence, attendees are highly recommended to follow the general rules of safety.

In the case of physical presence, attendees are highly recommended to have one of the following:

- A certificate of having been fully vaccinated against COVID-19

- A certificate of having recovered from COVID-19

A Coordinator shall be set inside the Conference venue, to handle situations of possible COVID-19 cases.

A specially designed, well-ventilated space is to be created near the entrance of the Conference Center, as an isolated area for suspicious cases, which will be supplied with protective equipment and supplies such as masks, paper tissues, garbage can with foot pedal, washbasin with liquid soap. The door of this area must be kept permanently closed and the entrance must be limited to staff trained to deal with possible cases of coronavirus.

The Organizers shall keep a list with contact details of all registered participants in order for it to be used for contact tracking in case of a positive coronavirus case.

COVID-19 Rapid Test available onsite at IAC2022

IAC2022 is pleased to partner with Bioiatriki - Digital Health Solutions (DHS), a leading Primary Healthcare Services provider in Greece, to offer rapid antigen COVID-19 testing to IAC2022 registered

participants. One test is offered free of charge and for any additional tests a fee of 6 EUR/test applies. The service is available at the venue at a conveniently sign-posted location. Rapid antigen test results are delivered electronically within 15-30 minutes. Walk-ins are welcome, no need for appointment. Testing is available Monday, 5 September to Friday, 9 September at 8:30-14:30.

For more information about Bioiatriki and other services such as PCR testing, you may visit **bioiatriki.gr**

CURRENCY / EXCHANGE

The Greek currency is euro (EUR). Exchange offices are located all around the city centre (exchange offices and banks).

ELECTRICITY

The electrical power supply voltage in Greece is 220-240 Volts (US/Canada: 110-120 Volts).

EMERGENCY CONTACTS

Police: **100**

Fire department: **199**

Medical emergency (ambulance): **166**

European emergency contact number (all above): **112**

ENVIRONMENTAL POLICY

The IAC 2022 Conference is observing an environmentally friendly policy. In this context, every effort has been made from preparation to realization of the Conference, to minimize impact on the environment. The Organising Secretariat observes an in-house recycling policy, and offices are hosted in energy saving premises.

During the IAC 2022 Conference, no plastic badges will be used. All delegate material is environmentally friendly, where possible made from recycled material. Delegates will receive a water container, which they can fill at the water stations available in various Conference areas.

Venue selection has taken into account easy access through a variety of public transportation environmentally friendly choices, thus minimizing carbon footprint.

EXHIBITION OPERATING HOURS

All exhibitors are listed in the Program Book (see Industry Section and Venue Floorplans). The exhibition will run during Conference dates at the designated areas, during coffee and lunch breaks.

MONDAY	TUESDAY	WEDNESDAY	THURSDAY
05.09.2022	**06.09.2022**	**07.09.2022**	**08.09.2022**
08.00-20.00	08.15-20.00	08.15-17.00	08.15-17.00

FOOD & BEVERAGES

Coffee during official breaks is included in the delegate registration fee and will be served in designated catering stations in all Congress areas. Lunches are provided on demand.

HYBRID FORMAT

Overcoming the pandemic crisis – and a long period of postponing the event – we are excited to finally be able to organize a physical event with interaction and full of networking opportunities in the beautiful and historic capital of Greece, Athens. Thanks to flexible technology provided to us, the Organizers have adapted the new trend in congresses structure: the IAC 2022 will be held in a hybrid format. It will be mainly a Conference with physical attendance; nevertheless, it will also have a strong digital presence with participation of high-level attendees.

Physical participation is encouraged so that this Conference makes a strong statement marking the reopening of face-to-face interaction and networking. All Conference sessions can be watched live via the IAC 2022 virtual platform, by clicking on the session's name, where you can find more information and the livestream itself.

Live Support: A Live Support system will be available for all attendees who will participate in the Conference, in order to resolve any technical issues that may arise and/or provide guidance through the platform.

Meeting Hub: You will be able to contact all participants and interact with your colleagues through the Meeting Hub section.

IMPORTANT NOTE: IAC 2022 sessions will be recorded and made available for post- viewing for a period of two (2) months following Conference dates.

LANGUAGE

English is the official language of the IAC2022. No simultaneous interpretation is provided.

LIABILITY AND INSURANCE

Registration fees do not include participants' insurance against personal accidents, sickness and cancellations by any party, theft, loss or damage to personal possessions. Participants are requested to make their own arrangements with respect to health and travel insurance. HAAR and the Conference Organizer Convin SA accept no liability.

PHOTOS

Photos of sessions and Conference areas will be taken during the IAC 2022 Conference. Attendees are advised to contact the Registrations Desk, for any issue or objection with this respect.

PRESS OFFICE

Members of the Press are welcome to register and receive the delegate material from the Registration Desk.

Interviews and other Conference material will be made available upon request and through the official social media of the Conference and its Organizers.

SELF-CHECK-IN STATIONS

Conference delegates who do not have outstanding payments may collect their name badges through the Self-check-in stations, located near the main entrance of the Conference venue, thus avoiding queues for badge pick-up.

SOCIAL RESPONSIBILITY

IAC 2022 promotes Corporate Social Responsibility taking and supporting actions and initiatives which reflect our identity and sense of responsibility to society and people. Attendees will be active members in various activities and will have the satisfaction of the contribution to society and their fellow human beings.

Tailor-made Aid Box: You can donate unopened amenities by creating your own Aid Box, to be collected by the City of Athens Homeless Foundation in their bid to ease problems faced by people who, for whatever reason, are without shelter or whose home is unsafe and inadequate.

WWF: For more than 30 years, WWF has been dedicated to protecting and defending the value of nature. Its goal is to transform the planet into a place where humanity and nature can coexist harmoniously. With the donations of thousands of supporters, unique successes have been achieved, such as establishing the Gyaros Marine Protected Area, the protection of rare birds of prey in Thrace, and the absolute protection of Sekania beach in Zakynthos, where Caretta caretta turtles lay their eggs every year.

No portion of food wasted: The partner catering company will donate all leftover food portions to the non-profit organization Boroume. Its mission is to reduce food waste and to fight malnutrition in Greece. Through the "Saving & Offering Food" program they save food on a daily basis from many sources and they offer it to charities that help people who are facing food insecurity. Their actions help the most vulnerable in our society as well as the environment by reducing organic food waste.

SUSTAINABILITY

IAC 2022 aims to minimize the environmental impact of the event and contribute towards a safe and healthy environment, implements numerous measures, from the planning of the event to execution and from the moment you start looking into your travel arrangements until you are back from the conference. This Conference aspires to bring about sustainable solutions, to act as an inspiration and to raise the level of both learning and awareness, so that the positive impacts will outweigh the negative.

- We select local suppliers to avoid long distance transport of goods and people
- We avoid printing and aim for an almost paperless office
- We offer contactless check-in for delegates and congress visitors
- We reduce energy consumption by applying LED lighting and screens
- We reduce the number and variety of amenities
- We offer a reusable bottle to refill it with water

Travel:

- Use public transport instead of a taxi when navigating through Athens.
- When using a taxi, you might think of sharing it with one of your fellow delegates.

Hotel:

- Only use the air conditioning if it is necessary.
- Turn off the lights and TV when leaving the room.
- Select the type and amount of food during meals sensibly to avoid food waste.

During the Conference:

- Bring your own folding travel cup for coffee/tea to prevent takeaway cups
- Bring your own bottle of water and refill it on the water stations provided
- Only pick up printed marketing and information material that you are really interested in and that you will use
- We suggest you download the congress mobile app

TAXI SERVICES

Delegates can hire taxis at the taxi station located across the Conference venue or address the Hospitality Desk for orders by phone.

TELECOMMUNICATIONS

There are 3 main GSM operators in Greece: Cosmote, Vodafone, and Wind. The protocols for digital mobile telephone transmissions are based on GSM technology, operating at the frequencies of 900 and 1800 MHz. Please contact your provider for further details.

TIME

Athens follows UTC/GMT +3 hours during the summer period.

TIPPING

In restaurants, hotels, taxis or other services, tipping is optional, and customized per case, depending on whether you are pleased with the service. Approximately 5% of the bill is a good guideline.

WEATHER

The weather in Athens in September is sunny and pleasant, with average temperature ranging between 20°C (68°F) and 30°C (86°F).

REGISTRATION

BADGES

Registration badges will be used during the IAC 2022 Conference. Participants will receive their badges upon check-in at the Registrations Desk. For identification purposes and admission to scientific sessions, participants are requested to wear their badges at all times. Admission to Conference areas will not be allowed without badge identification.

CERTIFICATES OF ATTENDANCE

A Certificate of Attendance will be sent to all registered participants after the Conference via email.

REGISTRATION & HOSPITALITY DESK

The **Registrations Desk and Onsite Secretariat** is located near the main entrance of the Conference venue.

Operating hours:

SUNDAY **04.09.2022** 17.00-19.00 › MONDAY **05.09.2022** 07.30-20.00 › TUESDAY **06.09.2022** 08.00-21.00

WEDNESDAY **07.09.2022** 08.00-17.00 › THURSDAY **08.09.2022** 08.00-17.00 › FRIDAY **09.09.2022** 08.00-15.30

The **Hospitality Desk** will be operating near the Registrations Desk, offering services to delegates that could facilitate their travel arrangements and make their stay in Athens as pleasant as possible, including information about hotels and the city.

REGISTRATION FEES

In-person (Physical) Attendance

Category	Late & Onsite Fees
Delegate	650,00 €
Student	300,00 €
Accompanying Person*	100,00 €

* Accompanying persons are not allowed to be authors or co-authors of any abstract.

Physical Registration Entitlements: Access to all scientific sessions / Access to poster areas / Access to virtual & physical exhibitors' area / Access to virtual meeting hub / Abstract book e-version / Final program / Daily Refreshments / Welcome Reception / Certificate of attendance / Access to the online platform on demand for two (2) months after the end of the Conference.

Accompanying Person Entitlements: Daily Refreshments / Opening Ceremony / Welcome Reception

Virtual Attendance

Category	Late & Onsite fees
Delegate	400,00 €
Student	200,00 €

Virtual Registration Entitlements: Access to all scientific sessions / Access to e-posters area / Access to virtual exhibitors' area / Access to virtual meeting hub / Abstract book e-version / Final Program / Certificate of attendance / Access to virtual Networking functions / Access to the online platform on demand for two (2) months after the end of the Conference

>> Students are kindly requested to provide the Professional Congress Organizers with a valid student identity card through the online registration process. The Professional Congress Organizers (CONVIN S.A.) reserves the right to allocate your registration to the appropriate category, in case relevant documentation is missing.

INSTRUCTIONS FOR SESSION CHAIRS, SPEAKERS & ORAL ABSTRACT PRESENTERS

All Congress session halls are equipped with the following:

- Projector & 16:9 screen (also suitable for 4:3 presentations)
- Chairs' table and microphones
- Lectern with laptop, wireless microphone & laser pointer
- Audience microphones for discussion purposes

No personal computers will be allowed.

All presentations should be handed in at the Speakers' Preview Room (MC 3.5 Hall), located in level -1 of the Conference venue) latest one (1) hour prior to the respective session, or the day before for early morning presentations. We strongly advise presenters to check their presentations well in advance, to ensure content is depicted according to their wishes.

The Speakers' Preview Room will be operating throughout Conference dates, according to the below schedule:

Operating hours:

SUNDAY **04.09.2022** 17.00-19.00	MONDAY **05.09.2022** 07.30-20.00	TUESDAY **06.09.2022** 08.00-21.00
WEDNESDAY **07.09.2022** 08.00-17.00	THURSDAY **08.09.2022** 08.00-17.00	FRIDAY **09.09.2022** 08.00-15.30

Chairs, Speakers and Oral abstract presenters who are present in Athens should be close to the stage and ready for the session at least 15 minutes before its beginning, to meet the steward/hostess and ensure everything is in place. Chairs are allocated at the panel desk, where chair screens and fixed microphones will be provided to facilitate their assignment. Chairs are advised to be alert and observe time allocation, as they are responsible for the smooth running of their session and the overall programme flow.

Those participating virtually will be asked to turn on their microphone and camera and share their screen when it is their turn to present.

Each oral communication is allocated **12 minutes**, plus 3 minutes of discussion time. Presenters are kindly requested to observe the time allotted to their presentations to ensure the smooth running of the Conference program.

INSTRUCTIONS FOR POSTER PRESENTERS

POSTER SESSIONS

Physical

MONDAY **05.09.2022**
17.00-19.00 > **Poster Session 1**

TUESDAY **06.09.2022**
17.00-19.00 > **Poster Session 2**

Virtual

THURSDAY **08.09.2022**
17.00-19.00 > **Virtual Poster Session**

Presenting your poster

Presenters that are physically present at the IAC 2022 and presenting during Poster Session 1 or Poster Session 2 will be asked to be next to their posters during their poster session in order to present them at the conference delegates.

Poster mounting and dismounting is to take place strictly on the respective presentation day. Any posters not collected at the end of the presentation day will be removed from the panels. IAC 2022 Organizers and the PCO (CONVIN S.A.) assume no responsibility for any posters damaged or lost; presenting authors are responsible for their posters.

Each poster panel will depict the allocated poster presentation codes for both Poster Sessions, duly noted as per the respective presentation date. A Poster Helpdesk will be operating in the Poster Areas during Conference dates to provide material for mounting as well as to facilitate placement, presentation and removal of posters.

In the virtual poster session, both virtual and physical attendees will have the opportunity to present their e-posters to delegates who are logged onto the virtual platform of the conference. Each e-poster presenter will have her/is own virtual room, where s/he can present their poster by sharing their screen and interact with delegates.

It should be noted that presenters who are attending the IAC 2022 physically will need to use their own computers to present their electronic versions of their posters in the virtual poster session.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11th International Aerosol Conference

Networking Program

Social Events

ATHENS Greece IAC 2022

Welcome Reception – Icebreaker Cocktail

WHEN: **Sunday, 4 September 2022 at 19.00 to 21.00**

WHERE: Conference Venue (MAICC), **Atrium**

WHAT: Opportunity to network with friends in a casual welcoming atmosphere with subtle local cultural references, and relaxing music.

WHO: All registered attendees (included in registration fee)

Dress code: Smart casual

During the Icebreaker Cocktail...

"Chaosmos, or Chess Continuum- Chaos Order Dance at the Court" 2017

Video-installation with performative elements
by Aemilia Papaphilippou
(with the kind participation of Eleftheria's Rizou studio).

Image from a previous event, Raumwelten Conference, Ludwigsburg Palace, Germany.

Conference Dinner

WHEN: **Thursday, 8 September 2022 at 20.00**

WHERE: Byzantine & Christian Museum (1 km / 13 min. walking distance from MAICC – Walk in groups starting from the Conference Venue)

WHAT: Buffet dinner with colleagues in a relaxing atmosphere overlooking an oasis in the center of the city

WHO: Not included in the registration fee. Tickets can be purchased at a fee of **70 EUR** until 4 September.

Dress code: Cocktail attire

During the Conference Dinner...

Modes & Moods – Music by Mikis Theodorakis

Jazz approach of Mikis Theodorakis' music, by the Dimitris Kalantzis Quartet

National Observatory of Athens

WHEN: **Monday, 5 September & Tuesday, 6 September 2022 at 21.00-00.00**

WHERE: **National Observatory of Athens** (Hill of the Nymphs, 11810 Athens)

WHAT: The visitors of the Center can enjoy a splendid nighttime view of the Acropolis together with a complimentary snack (finger food and a glass of wine or beer), visit the historical hill of Pnyx, walk through the NOA gardens of NOA, and explore the Geoastrophysics Museum, the library of the Observatory, which contains many historic books and documents, as well as a variety of scientific instruments of the 20th and 19th century.

WHO: Registered delegates. Not included in the registration fee. Tickets can be purchased at a fee of **20 EUR** until 4 September. Attendance limited, pre-booking required.

Dress code: Casual

Young Investigator Network event

WHEN: **Tuesday, 6 September 2022 at 19.00 to 21.00**

WHERE: Conference Venue (MAICC), **MC3 Hall**

WHAT: Discussion on academic grey zones. The event will include a short introductory talk by an invited expert and small group discussions. After the talk and discussions, food and drinks will be served with a chance for further mingling.

WHO: Early career scientists. Pre-registration is mandatory. No additional fee applies (Sponsored by GAeF and TSI).

Dress code: Smart casual

The event is organized by the Nordic Society for Aerosol Research (NOSA) early career scientist (ECS) board in collaboration with Gesellschaft für Aerosolforschung (GAeF, the German aerosol community) ECS representatives.

Art Exhibition

WHEN: **Monday, 5 September to Friday, 9 September 2022 during Conference hours**
WHERE: Conference venue (MAICC), **Foyer Kokkali**
WHAT: Display of entries to the "Art and Science: Aerosol-inspired Art Competition"
WHO: Registered delegates. Included in the registration fee.
Dress code: Smart casual

Technical Visit

WHEN: **Saturday, 10 September**
WHERE: Helmos Atmospheric Aerosol & Climate Change Station
WHAT: Guided tour of the station, the instrumentation and history of aerosol, greenhouse gases and cloud in situ measurements while enjoying breath-taking views on site and during the drive along the mountain.
WHO: Registered delegates. Not included in the registration fee. Attendance limited, pre-booking required. Please apply at the Registration Desk until 6 September.
Dress code: Casual

11th International Aerosol Conference

Tutorials

ATHENS Greece IAC 2022

NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DEMOKRITOS"

WHEN: **4 September 2022**

WHERE: **National Centre for Scientific Research "Demokritos"**

Time block	Seminar Room: INN-PC	Seminar Room: INN-MAT	Seminar Room: CC-AMPHI	Seminar Room: CC-LH
09.00-10.30 Morning I	4	13	16	10
11.00-12.30 Morning II	6	14	5	11
12.30-14.00 Lunch break & Technical visits (Athens Demokritos Aerosol station, Mobile LIDAR, Mobilab-aerosol mobile lab)				
14.00-15.30 Afternoon I	1	3	9	12
16.00-17.30 Afternoon II	2	15	8	7

Tutorial 1

Introduction to Aerosols. I.

Richard Flagan | California Institute of Technology | USA

Tutorial 2

Introduction to Aerosols. II.

Richard Flagan | California Institute of Technology | USA

Tutorial 3

Investigating microbial aerosols in the outdoor atmosphere

Pierre Amato | Centre National de la Recherche Scientifique (CNRS); Institut de Chimie de Clermont-Ferrand | FRANCE

Tutorial 4

Aerosol light-scattering and absorption: fundamentals and measurement techniques

Gloria Titos | University of Granada | SPAIN

Tutorial 5

New particle formation and Aerosol Growth

Ilona Riipinen | Stockholm University | SWEDEN

Tutorial 6

Air Quality and Aerosols in the Indoor Environment

Peter DeCarlo | Johns Hopkins University | USA

Tutorial 7

AQ-SPEC: Sensor Evaluation, Data Management, and Educational Outreach

Vasileios Papapostolou | South Coast Air Quality Management District | USA

Tutorial 8

Chemical Transport Modeling of Aerosols

Peter J. Adams | Carnegie Mellon University | USA

Tutorial 9

Aerosol chemical analysis using mass spectrometry

Imad El Haddad | Paul Scherrer Institute | SWITZERLAND

Tutorial 10

Aerosol Particle Thermodynamics

Cari S. Dutcher | University of Minnesota | USA

Tutorial 11

Aerosol-Cloud Interactions

Athanasios Nenes | Ecole Polytechnique Fédérale de Lausanne | SWITZERLAND; Foundation for Research and Technology | GREECE

Tutorial 12

Quantifying Aerosol Exposure

Philip K. Hopke | University of Rochester | USA

Tutorial 13

Investigating the mechanism of health effects of aerosols by field and laboratory studies

Yinon Rudich | Weizmann Institute of Science | ISRAEL

Tutorial 14

Determining the physical properties of aerosol particles

George Biskos | The Cyprus Institute | CYPRUS; Delft University of Technology | NETHERLANDS

Tutorial 15

Profiling the aerosol optical-microphysical and chemical properties using advanced LiDAR techniques

Alex Papayannis | National Technical University of Athens | GREECE; Ecole Polytechnique Fédérale de Lausanne | SWITZERLAND

Tutorial 16

Introduction to and Application of Receptor Models

Philip K. Hopke | University of Rochester | USA

11th International Aerosol Conference

Awards

ATHENS Greece IAC 2022

The **International Aerosol Research Assembly (IARA)** bestows the following awards at IAC 2022 Conference:

1. The Nikolai Albertovich Fuchs Memorial Award

The Nikolai Albertovich Fuchs award is sponsored jointly by American Association for Aerosol Research (**AAAR**), the Gesellschaft für Aerosolforschung (**GAeF**), and the Japan Association for Aerosol research and Technology (**JAAST**). It recognizes outstanding original research contributions to the field of aerosol science and technology. It is considered the highest honour for researchers in the field. Presented every four years at the IAC, the award memorializes late Professor Nikolai Albertovich Fuchs, the great Russian scientist who is regarded by many as the "father of aerosol science".

To be presented on	**Tuesday, 6 September 2022 at 10.00-10.30 in TRIANTI HALL**

2. The International Aerosol Fellow Award

The International Aerosol Fellow Award is bestowed by the IARA. The biennial award recognizes outstanding contributions to aerosol science and technology through research, technical development, education, and/or service. Every four years, presentation of the biennial award occurs at the IAC.

To be presented on	**Wednesday, 7 September 2022 at 10.00-10.30 in TRIANTI HALL**

The **Gesellschaft für Aerosolforschung** (**GAeF**) supports several awards granted to scientists in the field of aerosol research for their special achievements. During the IAC 2022 Conference, it will bestow the following awards:

1. The Smoluchowski award

The Smoluchowski Award, named after the physicist Marian Smoluchowski (1872-1917), is intended to recognize significant research contribution to all other fields of aerosol science.

To be presented on	**Tuesday, 6 September 2022 at 10.00-10.30 in TRIANTI HALL**

2. The Schmauss award

The Schmauss Award, named after the physicist / meteorologist August Schmauss (1877-1952), is intended to recognize significant research contribution to atmospheric aerosol science. Bestowed to a Young scientist in atmospheric aerosol science.

To be presented on	**Wednesday, 7 September 2022 at 10.00-10.30 in TRIANTI HALL**

3. The GAeF PhD award

The GAeF PhD Award is new since 2018 and granted to young scientists whose ideas have provided decisive stimulus in their area of aerosol research and who are recognized as outstanding among their peers in their field.

To be presented on	**Friday, 9 September 2022 at 10.00-10.30 in TRIANTI HALL**

The below awards will also be presented during the IAC 2022 Conference:

1. Early-Career Poster award

The European Aerosol Assembly (**EAA**) through its five Working Groups, will present the below award at the **IAC 2022 Conference**.

Motivation: To help early-career scientists to develop their full potential, to establish themselves in the aerosol-science community and to start their career, and to recognize exceptional research coupled with artistic ability and communication skills.

Eligibility: The presenting author of the poster should be an Early Career Scientist. An Early Career Scientist is defined as a student, PhD candidate, or practising scientist who received their highest certificate (e.g., BSc, MSc or PhD) within the past five years. The five-year period can be extended to allow for periods when the scientist was not working in science because of, but not limited to, caring and/or parental responsibilities, disability, personal illness, community obligations or national service.

To be presented on	**Friday, 9 September 2022 at 10.00-10.30 in TRIANTI HALL**

2. Art and Science: Aerosol-inspired Art Competition

The **IAC 2022 Conference** will host entries to the Aerosol-inspired Art Competition in a dedicated area of the Conference venue (Muses Foyer balcony, please advise venue floorplans), which are art works inspired by aerosol science and technology (photographs, paintings, computer-generated images, collages, videos, installations or any other art form featuring or related to aerosol particles and their interaction with the environment).

Three awards to the best entries will be given: first price is 200 Euros, second 150 Euros, and third 100 Euros. The selection will be through voting of the public.

Award winners will be selected by delegate vote, which will be taking place until Thursday, 8 September.

To be presented on	**Friday, 9 September 2022 at 10.00-10.30 in TRIANTI HALL**

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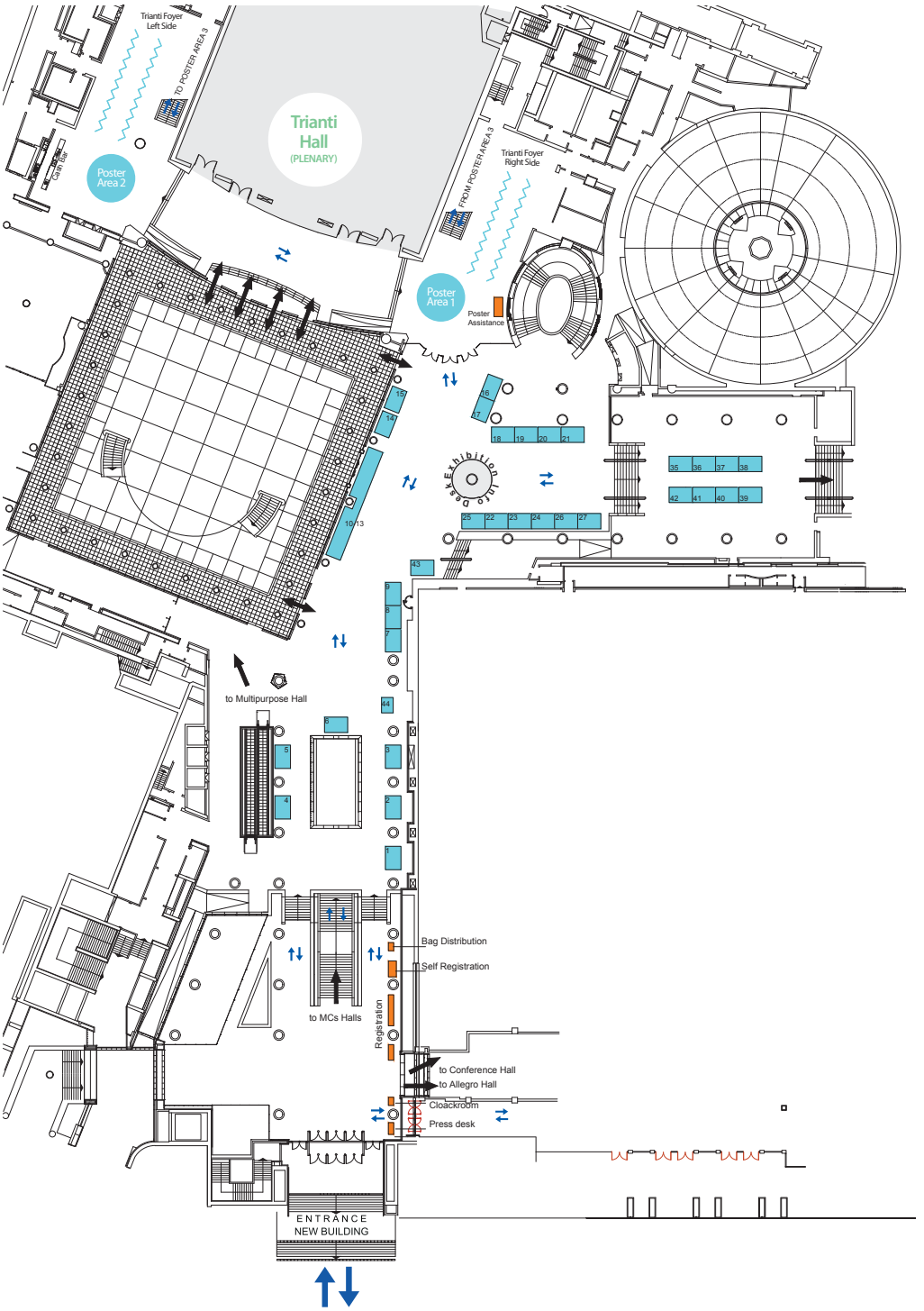
NATIONAL CENTRE FOR SCIENTIFIC RESEARCH "DEMOKRITOS"

Exhibition Floorplan



COMPANY	BOOTH
Acoem	No 27
Aerodyne Research, Inc	No 2
Aerosol and Air Quality Research	3D Virtual Booth
AethLabs	No 5
Aerosol d.o.o	No 22+25
Aerosol Devices, A Handix Division	No 1
AIRMODUS	No 35
Aerosol Science and Technology (AS&T)	No 4
Brechtel Manufacturing,Inc.	No 43
Cambustion	No 15
Catalytic Instruments	No 6
Comde-Derenda GmbH	No 20
Cooper Environmental	No 3
The Cyprus Institute	No 24
Datalystica Ltd	No 21
Dekati Ltd	No 8+9
Digitel Enviro-Sense & Envirosys Ltd	No 39
Enco Ltd	-
GRIMM AEROSOL	No 14
mSensis	No 44
naneos particle solutions gmbh	No 19
Palas GmbH	No 40
Particles Plus	No 42
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PHOTONION GMBH	No 37
PURCON Ltd	No 38
Kanomax	-
Raymetrics	No 16
Royal Society of Chemistry	No 23
Sunset Laboratory Inc.	No 17
Swisens AG	No 7
Topas GmbH	No 18
TSI GmbH	No 10-11-12-13
URG	No 26
VSPARTICLE	No 41

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Acoem

At Acoem, we create environments of possibility — helping organisations find the right balance between progress and preservation — safeguarding businesses and assets, and maximising opportunities while conserving the planet's resources. We deliver unrivalled, interoperable AI-powered sensors and ecosystems that empower our customers to make enlightened decisions based on accurate information. Together with 220+ distribution partners, our 850+ employees work across 28 offices, 6 manufacturing facilities and 5 R&D centres in 11 countries, to provide trusted, holistic data solutions for customers worldwide. Acoem links possibilities with protection.

Aerodyne Research, Inc

Aerodyne Research produces state of the art instruments for measuring gases or aerosol particles with fast time response and great sensitivity. Our instruments are used in a wide variety of research and monitoring applications on ground and mobile (truck, ship, aircraft) platforms for measuring atmospheric pollutants, combustion and industrial emissions. Our particle instruments include Aerosol Mass Spectrometer systems, the Aerosol Chemical Speciation Monitors, CAPS-Based Particle Extinction and Single Scattering Albedo Monitors, as well as the Potential Aerosol Mass Oxidation Flow Reactor (PAM). Additionally, we produce chemical ionization mass spectrometers, laser trace gas and isotope detectors, ultrasensitive CAPS-Based nitrogen dioxide monitors, cloud depth and properties monitors, and a field-deployable modular GC for time-of-flight mass spectrometry for the measurement of VOCs and OVOCs.

Aerosol and Air Quality Research

Aerosol and Air Quality Research (AAQR) is an independently-run, non-profit journal. Its mission is to serve the worldwide scientific community through the publication of high-quality and high-impact scholarly, multi- and inter-disciplinary research that broadly resides in the fields of environmental and atmospheric sciences. Under international practices and guidelines, AAQR is committed to providing a platform that disseminates scholarly work, findings, and knowledge promptly, openly, and free to all, and thus promotes academic and public discussion and communication. By this, AAQR strives to be a world-leading journal in the publication of aerosol and air quality research findings.

AethLabs

AethLabs designs and manufactures high quality portable environmental and personal exposure Black Carbon monitoring instruments. The microAeth® MA series instruments are multi-wavelength Black Carbon particulate matter monitors which can distinguish between traffic and biomass (wildfire) emissions. In addition to being able to run continuously and unattended, the microAeth® MA series instruments offer many advanced measurement features while being integrated into battery powered, lightweight and compact form factors which are small enough to be worn on-person, or fly on UAVs.

Aerosol d.o.o.

Aerosol d.o.o., based in Ljubljana, Slovenia, develops and manufactures scientific instrumentation for monitoring carbonaceous aerosols in the air. During 1996-2007, first in cooperation with Optotek d.o.o. and later on, since 2007, as an independent company, Aerosol d.o.o. has been developing, manufacturing and commercializing most relied upon Magee Scientific instruments for measuring carbonaceous aerosols. We collaborate with the leading scientists from the field of carbonaceous aerosols in many international research projects. Our Instruments are used on all continents, including Antarctica. In collaboration with partner company Magee Scientific Co. we are globally considered as the leading manufacturer of instruments for monitoring Black Carbon and the other species of carbonaceous aerosols. More recently, we also started manufacturing instrumentation for monitoring other types of carbonaceous aerosols. The company employs 30 people, including 7 with PhDs. Aerosol d.o.o. has its own research group and is therefore either a partner or coordinator of many research and development projects.

Aerosol Devices, A Handix Division

Handix Scientific and Aerosol Devices manufacture, research, and develop revolutionary scientific technologies. We are committed to suppling our customers with advanced instruments that collect the smallest particles for environmental, biological, and industrial applications. Our mission is to provide novel tools that inform customers of the physical, chemical and biological nature of the atmospheric environment in order to solve important societal needs, protect health, and advance scientific research.

AIRMODUS

Measuring ultrafine particle number is crucial but not trivial. After 12 years of continuous development and 100 peer-reviewed publications, Airmodus has created a lineup of particle counters that have competitive pricing and transparent technology development – no black boxes or magic factors! Airmodus A11 is a unique tool to capture 1 – 4nm particle size distribution without charging (and losing) the particles. The instrument has been used in various fields; from atmospheric research to indoor air, surface treatment and emission measurements. Airmodus CPC lineup includes versions with cut-offs from 3nm to 23nm. BTW, our newest and smallest CPC, A30, was just launched! Airmodus has a passion for developing instruments that are needed by researchers to create new science. Therefore, all our products can be custom-tailored. If you need an integrated version, modified sampling or dilution stage – we are happy to help you designing the measurement setup!

Aerosol Science and Technology (AS&T)

Aerosol Science and Technology (AS&T) is the official journal of the American Association for Aerosol Research, publishing theoretical and experimental investigations into aerosol phenomena, both in fundamental and applied topics. AS&T is published monthly by Taylor and Francis and accessible to all members of the AAAR and subscribing institutions with an impact factor of 4.8 for 2021. Particularly appropriate subjects include: sampling of airborne particles and measurement of physical, chemical and biological properties; effects of aerosols on climate and atmospheric processes; electrical charging and precipitation; evaporation and condensation; coagulation, cohesion and adhesion; aerosol routes in material synthesis; aerosol delivery of pharmaceuticals and health effects. AS&T enhances the impact of publications from the aerosol community through: hosting Virtual Collections and Special Issues, publishing research and headline Infographics, inviting editorials and review articles, and supporting the monthly AS&T and AAAR webinar. We welcome all submissions from the aerosol community!

Brechtel Manufacturing,Inc.

Are you trying to measure aerosols from drones? Need portable instruments for easy setup and quick measurements? Would you like to sample BC down to 20 ng/m3? Want to know which particles formed cloud droplets and which did not? Our products are easy to use and supported by the great service you deserve. With free lifetime product application support, our solutions are backed by over 30 years of sampling experience. Visit us at www.brechtel.com.

Cambustion

Cambustion are delighted to return to the in-person IAC for 2022. Visit booth #15 to speak with our engineers and scientists and see our latest instruments / techniques for aerosol measurement, including our new aerosol flowmeter, standalone aerosol charger and innovative Mass Mobility Aerosol Spectrometer for characterisation of non-spherical powders. We also have new applications to share for products, such as using the Aerodynamic Aerosol Classifier as a low pass aerosol selector, and in the standard configuration for filter penetration testing, allowing size dependent filtration characterisation.

Catalytic Instruments

Catalytic Instruments is a German company specializing in innovative aerosol instrumentation mainly based on °Catalytic Stripper technology. The °Catalytic Stripper CS contains a heated catalytic element used to remove the semi-volatile fraction of an aerosol sample (solutions for a range of flowrates from 0.7–25 L/min). Applications include combustion exhaust measurements, brake emissions, ambient studies, and air quality research. The °Catalytic Vapor Filter CVF converts noxious CPC exhaust vapor into clean air (up to 5 L/min). Furthermore, HEPA filters can be purchased directly through our online store. The new °Silver Particle Generator SPG produces a stable, solid, high concentration 2,5 to 200 nm aerosol with an almost monodisperse size concentration at a button press. It is the perfect tool for calibration and test systems. We look forward to working directly with you to provide customized and tailored solutions for your aerosol needs.

Comde-Derenda GmbH

Comde-Derenda GmbH is an international company with headquarters in Stahnsdorf near Berlin/Germany, and subsidiaries and numerous distributors worldwide. Skilled and highly motivated employees in development, production and service ensure that customers always obtain the products matching their requirements and appropriate support in any case. In the beginnings of the company in 1976, the development of the first samplers for determining airborne particle concentrations was initiated in conjunction with the Federal Health Agency in Berlin. The applied measuring method was adopted as a standard procedure in statutory regulations, including VDI guidelines and the Technical Instructions on Air Quality Control (TA Luft). Looking back on 50 years of experience in developing and manufacturing air quality monitoring devices, the product range has been steadily expanded in the light of technical progress to encompass sampling systems, automatic weighing systems and real-time measuring instruments to facilitate the direct and continuous determination of fine particulate concentrations.

Cooper Environmental

Cooper Environmental (a division of Sailbri Cooper) is a recognized global leader in metals measurement technology. The company was the first to develop and commercialize near real time measurement of metals using X-ray fluorescence (XRF). Its ambient metals monitor, the Xact 625i, has demonstrated accuracy in numerous studies and peer reviewed journal articles and it is used by researchers, environmental agencies and metal producing industries throughout the world. In addition to its ambient metals monitor the company also makes instruments to measure metals in smoke stacks and water and it offers a complete line of sensor based measurements for criteria pollutants (SO2, CO, O3, NO2, PM10 and PM2.5), hazardous gases (HCl, Cl2, H2S, HF, NH3) and total VOCs.

The Cyprus Institute (CyI)

The Cyprus Institute (CyI) is a non-profit research and educational institution with a strong scientific and technological orientation, focusing on cross-disciplinary research and post-graduate education to address pressing challenges in partnership with leading, international institutions. The Climate and Atmosphere Research Center (CARE-C) is a 100+ staff Center-of-Excellence established at CyI in 2020, through competitive funding from EU's H2020-Teaming and the Cyprus Government. CARE-C aims to create a regional hub-of-knowledge to address air pollution and climate change in the Eastern-Mediterranean-and-Middle-East through research, innovation and education with a regional focus. CARE-C focuses on Environmental Observations and Environmental Predictions research, including experimental and modelling activities on key climate drivers (reactive trace gases, aerosols, clouds, GHGs) and impacts, and technology development and innovation (including miniaturized, cost-effective instruments measuring aerosol particles and gaseous pollutants, Unmanned-Aerial-Systems and sensor-integration for air-quality-monitoring). Activities benefit from CARE-C's state-of-the-art Research-Infrastructure, including its Instrumentation & Nano-Lab, and Unmanned Systems Research Laboratory.

Datalystica Ltd

Datalystica is a spin-off company of the Paul Scherrer Institute, Switzerland, and we are developing software solutions to make source apportionment analysis easier for everybody. Our Source Finder (SoFi) is an user-friendly software that uses state-of-the-art source apportionment techniques to provide information on sources offline (SoFi Pro) or in real-time (SoFi RT). Our products are used worldwide and we have built a great user community. We constantly develop and add new features to push the limits of source apportionment, applicable to a huge variety of data. Our corporate philosophy paired with our experience and cooperation with research groups is the ideal basis for development of new and innovative solutions. We look forward meeting you – your problem is our challenge! www.datalystica.com

Dekati Ltd

Dekati's wide range of particle measurement instruments will be on display at the exhibition of the IAC 2022 conference! We have nearly 30 years of experience in designing and manufacturing innovative fine particle measurement solutions to a wide variety of environments and sample conditions and today, our measurement solutions include complete fine particle measurement setups including both sample conditioning and particle detection for <10 µm particles. We will be showing our product line at the IAC 2022 including the latest releases: the new Dekati® Oxidation Flow Reactor DOFR™ for secondary aerosol formation studies, and Dekati® MPEC+™ for monitoring particle number concentration in PEMS applications. Visit us at the IAC 2022 to discuss with our experts or go to www.dekati.com to learn more.

Digitel Enviro-Sense

Since 1972 Digitel Elektronik AG designs and manufactures measurement instrumentation for environmental monitoring. Digitel is a family-owned business and is located in Switzerland and Austria.Digitel develops and produces aerosol and wet-only samplers including a wide range of options and accessories. Focusing on the customer, a close collaboration with end-users such as universities, research institutes and measurement networks is crucial to the continuous improvements of their products. Precision and quality are most important: The use of highest -quality materials and manufacturing processes leads to long lasting instrumentation, some of their instruments have been in use for over 30years. The Enviro-Sense Technology stands for sustainable Design: A "No Obsolescence" strategy with availability of spare parts, repairs and retrofits for 20+ years, robust, weatherproof housings and use of low-wear and corrosion-resistant materials throughout the instruments, design for easy on-site repair, low maintenance cost and low energy consumption.

Enco Ltd

ENCO Ltd, certified according to EN ISO 9001:2015, specializes since 1991 in environmental measurement technologies with focus on air quality, point and fugitive emissions, indoor air quality and occupational safety. Based in Athens, with a branch in Thessaloniki and a regional office in Cyprus (ENCO Cyprus Ltd), the company offers integrated solutions for environmental measurement applications with a wide range of supply, from portable instruments to fully integrated systems for sampling, measuring and recording of environmental parameters. A main part of our scope of supply covers instrumentation for scientific atmospheric and climate research applications, including state-of-the-art instruments for aerosols, trace gases, heavy metals in atmosphere and cloud research. ENCO maintains partnerships with leading manufacturers and represents, among others, TSI Inc., ACOEM-Ecotech, Aerosol-Magee Scientific, Chromatotec, Cooper Environmental, Droplet Measurement Technologies, Aethlabs, Durag Group, FAI Instruments, Dado Lab and Bertin Technologies, with long experience in the fields of air quality measurements. ENCO's customers include several research institutions, universities and the largest industrial and construction companies

Envirosys Ltd

Envirosys Ltd was founded in December 2013, as the successor of a family company, active from 1982. Envirosys is a leader in the fields of environmental monitoring, sustainability and scientific equipment. More than 40 years of solid experience allow us to design and offer complete solutions that include installation, operation, maintenance and technical support of outdoor and indoor environmental air quality and noise monitoring systems (stationary and mobile systems and networks). Envirosys also develops air quality and noise environmental studies, dynamic air and noise pollution simulation modeling, energy and daylight modeling, life cycle assessment, consulting services for sustainable environmental design and implementation of internationally recognized environmental certification systems. Furthermore, Envirosys undertakes the supply, installation and after sales support of a wide range of high technology scientific equipment for Chemical Laboratories, Universities, Research Institutes and Industry. Envirosys qualified and experienced team, with its own vision contributes to the strong presence of the Company in the above areas of activity.

GRIMM AEROSOL

GRIMM AEROSOL, a member of the DURAG GROUP, is a renowned expert in aerosol measurement for more than 40 years. Our instruments – made in Germany – are used worldwide in wide variety of applications in aerosol research, ambient air monitoring, industry, workplace monitoring and more. Since the beginning GRIMM AEROSOL combines high time resolution and particle number size distribution in an unmatched size range from 1nm up to 35µm to provide innovative solutions in aerosol monitoring for ultrafine particles and dust mass fractions. Our team looks forward to meeting you in person at IAC 2022 in Athens at Booth 14.

mSensis

mSensis is a software developer and solutions provider founded in 2007. Company's successful services portfolio has helped us build, until now an extensive worldwide customer base. Having a strong international presence means meeting all challenges by providing a 24×7 quality service and delivering the desirable results to our customers. Our projects: 1. The Airsensis project aims at the early warning of an increase in poor air quality in order to avoid crowding and the entry of a greater number of citizens into the space of a Public Administration. The possibility of identifying the sources that lead to the poor state of air quality, can lead to its treatment and also to ensuring the physical and mental health of all users of a space. 2. Life-FrostDefend is a project that aims to design, develop, and demonstrate the benefits of a novel monitoring and frost forecasting tool to mitigate frost injury in high yield agriculture crops.

naneos particle solutions gmbh

We are a spin-off company of the University of Applied Sciences Northwestern Switzerland, and build on over a decade of experience in nanoparticle instrumentation development. Our philosophy is to keep things simple - in engineering, simple automatically means robust. We strive to build instruments that are easier to use and need less maintenance than traditional nanoparticle detectors. Our diffusion charger-based instruments can detect ultrafine particles down to a size of 10nm. Our flagship product is the partector 2, an ultra-portable multimetric aerosol sensor. It is suitable for personal and environmental monitoring or airborne measurements. We also develop sensors for engine emission measurements and special UFP measurements at airports. For more information visit our website www.naneos.ch

Palas GmbH

MORE THAN 35 YEARS OF EXPERTISE IN AEROSOL TECHNOLOGY Palas GmbH is a leading developer and manufacturer of high-precision instruments for the generation, measurement and characterization of particles in air. With numerous active patents, Palas® develops technologically leading and certified fine dust and nanoparticle analyzers, aerosol spectrometers, generators and sensors as well as related systems and software solutions. Renowned companies, universities and research institutions put their trust in Palas® precision. Palas® was founded in 1983 and employs around 70 people at its headquarters in Karlsruhe. CORE COMPETENCIES Fine dust monitoring - Nanoparticle measurement - Aerosol spectrometer systems - Filter test systems - Particle generation systems

Particles Plus

Particles Plus offers a line of advanced-technology particle counters, air quality monitors, and environmental sensors. As the most vertically integrated particle counter manufacturer and technology licensing company in the industry, Particles Plus engineers and manufactures its own counter, display, battery, vacuum pump, and sensor technology from the ground up. Added intelligence in each module results in products with superior performance, extended features, accuracy, quality, reliability and value.

Perma pure

Specializing in moisture and humidity control Perma Pure LLC, a Halma company, is a leading manufacturer of high-performance gas conditioning solutions. Our product line includes dryers, humidifiers, filters, coalescers, specialty scrubbers and complete sample conditioning systems. Headquartered in Lakewood, NJ, with worldwide distribution channels, Perma Pure is the exclusive manufacturer of Nafion™ polymer tubing, an ion exchange co-polymer. Our MD-700 gas dryer is specifically designed to control humidity during particulate monitoring. The unique design removes water in the vapor phase, promotes laminar flow, and minimizes particle loss helping to ensure accurate consistent analysis. Nafion™ is a trademark of the Chemours Company FC, LLC used under license by Perma Pure LLC. Website Link: www.permapure.com

Photonion GmbH

Photonion develops new analytical devices based on mass spectrometric methods in order to be able to directly analyze complex organic gases, liquids or solid materials. Potential applications include process control in complex applications such as coffee roasting plants or in plastics production, the fast analysis of cigarette smoke or crude oil, and the detection and determination of fine dust contamination, including the chemical characterization of single aerosols in air.

PURCON Ltd

PURCON Ltd was established in 1976 and is active in the sale, integration and support of ambient air monitoring systems and complete monitoring networks, mainly for the market of Greece.
Purcon distributes primarily EU certified analyzers and samplers (Thermo Fisher Scientific/USA – TCR Tecora/Italy) as well as robust and smart compact IoT solutions (South Coast Science/UK).
The company has installed a large number of data acquisition systems in Greece (by Envitech /Israel) and has gained know-how and expertise, in providing turn-key, custom-built solutions in data acquisition and data analysis.
It is also involved in the design, testing and support of the AirDMS/Greece platform, an ambient air monitoring / network support platform easily customizable that can host in a user-friendly cloud environment government, industrial and/or smart city projects.

Kanomax

Kanomax, is headquartered in Osaka Japan and was founded in 1934, through more than 80-year accumulated knowledge and knowhow, strives to deliver the best measurement solutions in its products and services that adapt precision measurement technology for fluids and particles across several research areas and industries all over the world.
As cutting-edge particle measurement solutions, several research institutes, universities, and industries have adopted our proprietary Nano Aerosol Generator, Fast CPC, Aerosol Particle Mass Analyzer, and Portable Aerosol Mobility Spectrometer for long time. We will keep working on new technologies to create the future of measurement and further contribute to you.

Raymetrics

Raymetrics is a worldwide pioneer and one of the most experienced LIDAR manufacturers, with over 20 years in the business. The company is developing innovative products focusing on environmental monitoring, addressing key atmospheric issues related to remote sensing, such as:

- Aerosol studies, discrimination, and classification
- Remote pollution and dust tracking
- Fog detection and remote visibility measurement
- Cloud studies, including 3D cloud mapping, multiple stratifications of clouds and near-future cloud base measurement (forecasting)
- Localization of stratifications of atmosphere
- Planetary Boundary Layer (PBL) studies
- Monitoring of vertical distribution of atmospheric temperature and humidity
- Volcanic ash positive identification plus ash layering and altitudes

Developed through a long-term collaboration with the EARLINET community, Raymetrics lidars perform state-of-the-art measurements robustly and in a fully automatic way. Through a blend of experience and expertise, Raymetrics can offer the absolute most remarkable products available in the market.

Royal Society of Chemistry

Chemistry is at the centre of everything you can see, smell, touch and taste. Whether studying the chemistry of life, or developing the advanced science behind modern technology, chemical scientists use their expertise to improve our health, our environment and our daily lives. Collaboration is essential. We connect scientists with each other and society as a whole, so they can do their best work and make discoveries and innovation happen. We publish new research. We develop, recognise and celebrate professional capabilities. We bring people together to spark new ideas and new partnerships. We support teachers to inspire future generations of scientists. And we speak up to influence the people making decisions that affect us all. We are a catalyst for the chemistry that enriches our world.

Sunset Laboratory Inc.

Sunset Laboratory Inc. was founded in 1984 by Bob Cary, a pioneer in the field of organic carbon and elemental carbon (OC-EC) aerosol analysis. The thermal-optical technique developed by Bob at the Oregon Graduate Center was adopted as the analytic method for OC-EC measurements by the National Institute for Occupational Safety and Health (known as NIOSH method 5040). In recognition of this achievement, Bob received the 1996 Alice Hamilton Award and the 2021 AS&T Outstanding Publication Award as co-author of the method. The sample sources Sunset Laboratory analyzed by this method are collected in a variety of environments for multiple purposes. Sources range from ambient urban and rural areas to mining sites, work environments, national parklands, forest fire plumes, and sites of other unusual events. Our instruments have become the analytic equipment used for OC-EC measurements in more than 40 countries, and are ready for use with the NIOSH method 5040, IMPROVE, and EUSAAR2 protocols. Highly configurable operating parameters also allow for custom designed analysis.

Swisens AG

Detect what's in the air! In 2016, we started with the vision of making the smallest particles in the air measurable and visible – in real time. With great conviction, we rely on artificial intelligence and Swiss precision work for the automatic identification of particles. Swisens develops new technologies for monitoring particles in the air. In doing so, we enable new and improved solutions for industry and science with the detection of bioaerosols, pollutants and other solid particles. We are aiming to gain new insights and to add scientific value as the earth and our living space are in a state of flux. So is the microcosm of the particles in the air that surrounds us. We want to make these changes visible. Our goal is to contribute to a better knowledge and understanding of the air we breathe, the food we eat and the aerosol microcosm with all its facets. Web: www.swisens.com

Topas GmbH

Our passion are Aerosols. Since 30 years, technology-oriented particle, analysis and sensor systems have been developed, designed and manufactured made in Germany. Our customers benefit worldwide from our ideas and experience as a developer and manufacturer of equipment for the generation, measurement and dilution of airborne particles (aerosols) and complex test systems for filters, filter media and separators. Our own research and development as well as close cooperation with universities and research institutes extends our in-house know-how, which we pass on to our customers with innovative solutions. They can be used to generate, condition and analyse test and reference aerosols. In addition, more than 60 series devices and 20 test systems of our medium-sized Saxon company have been widely used and proven for the classification and testing of filters and filter media in worldwide industry and basic research for decades.

TSI GmbH

Platinum Sponsor of IAC 2022

We as TSI® are known and well respected all over the world for our particle sizing, counting, generating and sampling solutions, all of which are designed to help our customers make informed decisions. We are dedicated to creating a better world by helping protect people, products and the environment. Trust the Pioneer for Your Air Quality Monitoring Solution. Designed with CEN/TS 16976/17434 compliance in mind, our comprehensive ultrafine particle (UFP) monitoring solution checks all the boxes: sampling, drying, and diluting the aerosol, as well as measurement of relative humidity and temperature, particle number concentration, and particle size distribution. Website: tsi.com

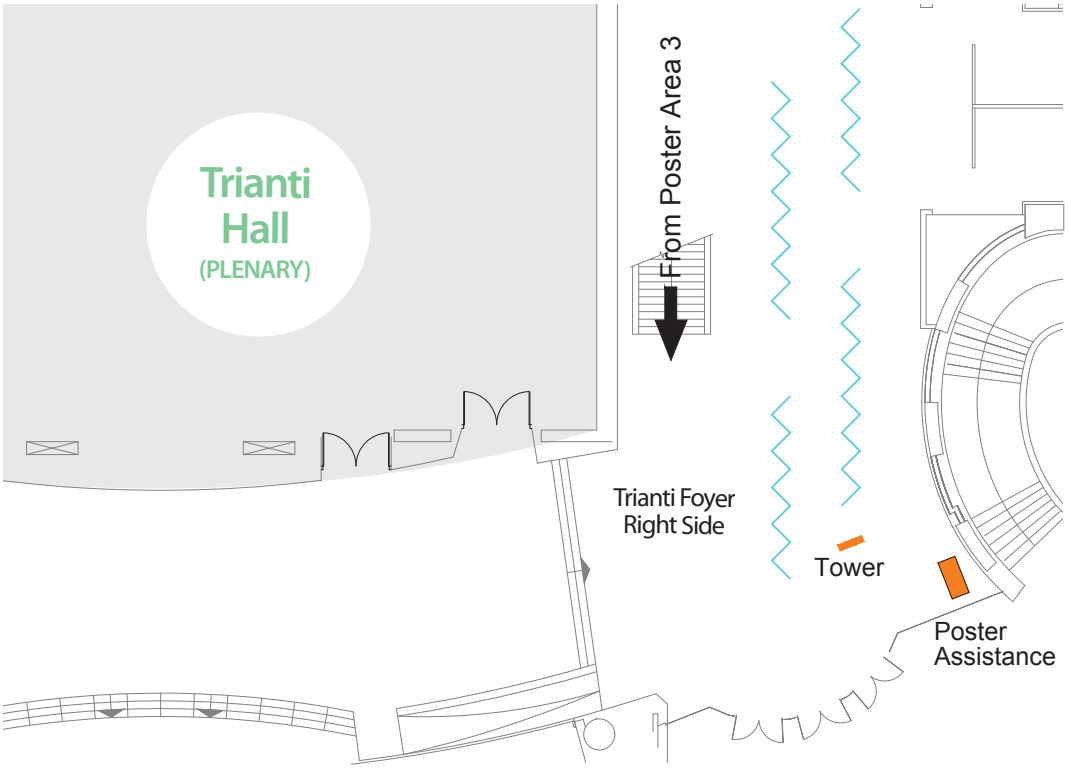
URG

URG's active development of advanced sampling systems helps ensure better air for better lives. The Ambient Ion Monitor provides real-time measurements of gas and particulate matter air pollutants. We specialize in a wide range of cyclones for ambient sampling and diesel emissions testing, annular denuders and personal sampling systems.

VSPARTICLE

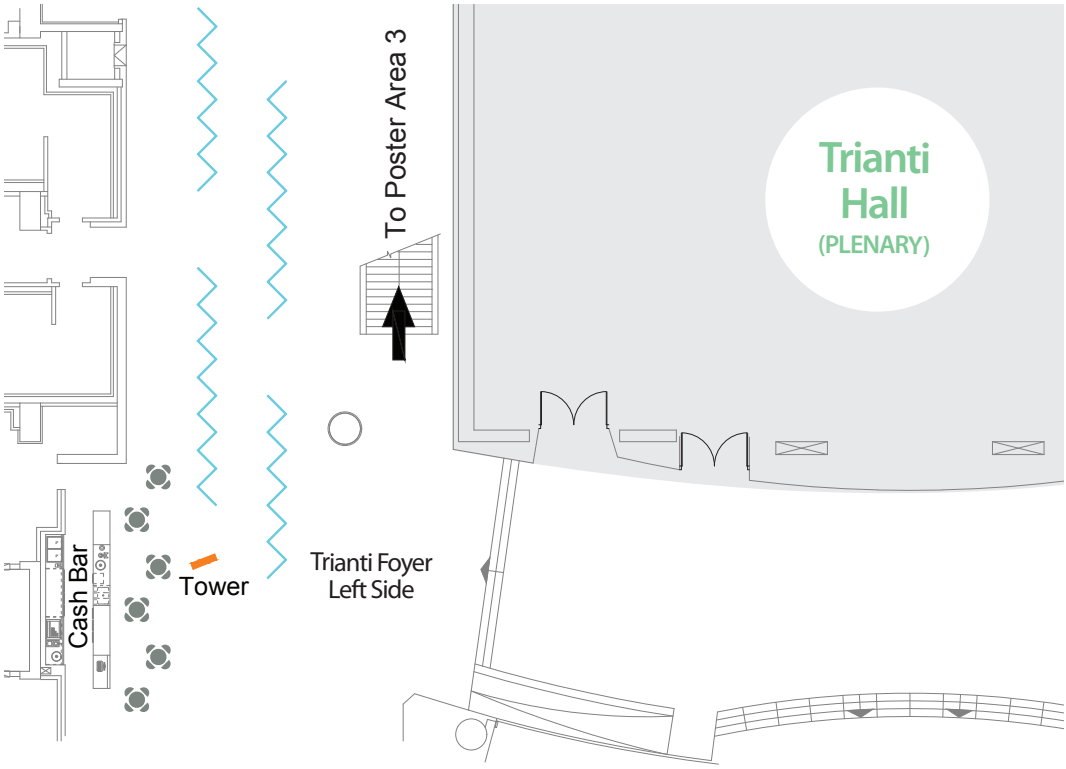
VSPARTICLE was founded in 2014 as a spin-off company from Delft University of Technology. With over 20 years of experience in the synthesis of aerosols and supported by a passionate team of scientists and engineers, VSPARTICLE's technology is unlocking a new world of nanomaterial possibilities. Our ambition is to provide academic and industrial researchers with tools to rapidly advance fields based on nanotechnology and accelerate the discovery of new materials and products.

Trianti Foyer Right Side | New Building Level 0 | **Poster Area 1**



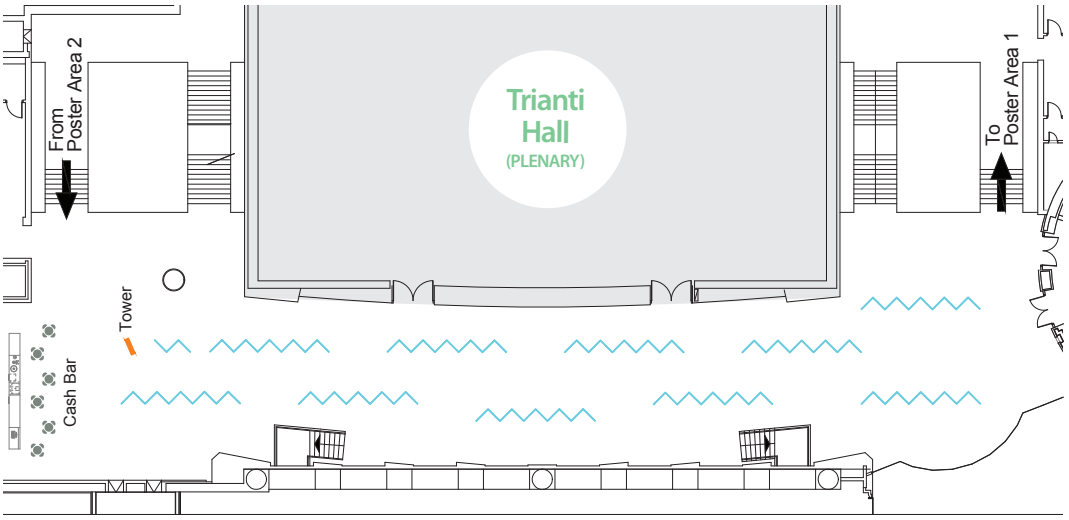
Poster Area 1		
AH-P1_001 - AH-P1_023	**AH-P1:** Health effects of aerosols	Monday, September 5
AH-P2_001 - AH-P2_023	**AH-P2:** Bioaerosols	Monday, September 5
AH-P3_001 - AH-P3_053	**AH-P3:** Exposure: Sources and health studies	Tuesday, September 6
AMT-P1_002 - AMT-P1_041	**AMT-P1:** Instrumentation for aerosol characterization	Monday, September 5
AMT-P2_001 - AMT-P2_020	**AMT-P2:** Measurement techniques	Monday, September 5
AMT-P3_001 - AMT-P3_049	**AMT-P3:** Novel and low cost instrumentation	Tuesday, September 6

Trianti Foyer Left Side | New Building Level 0 | **Poster Area 2**



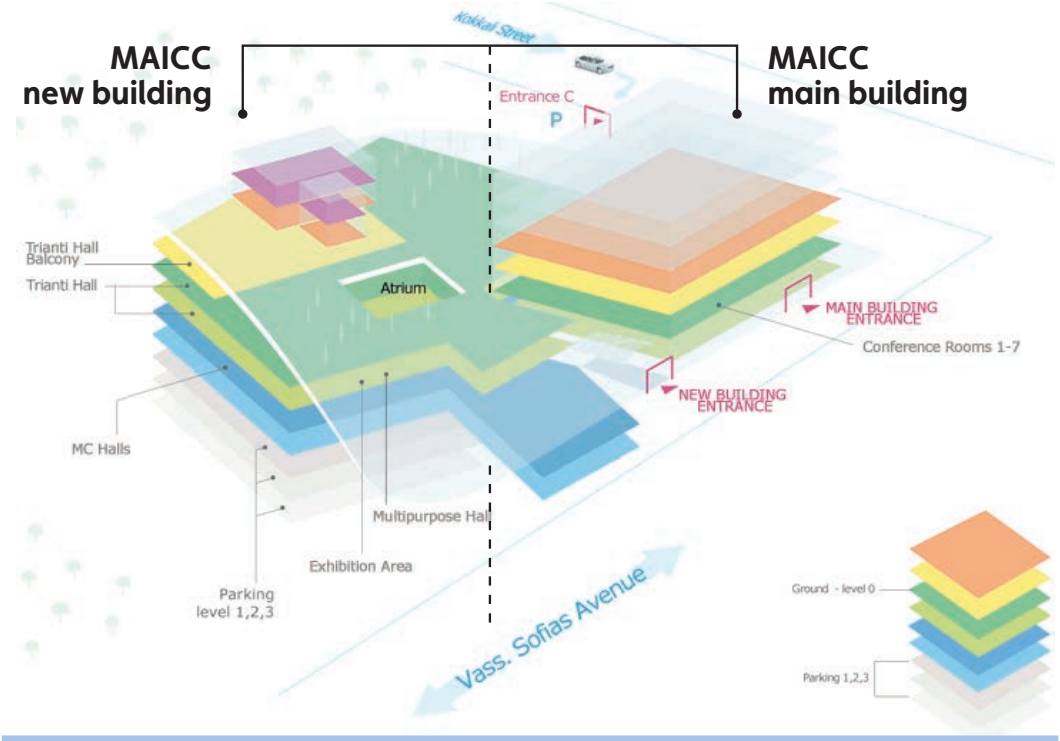
Poster Area 2		
AMT-P2_021 - AMT-P2_049	**AMT-P2:** Measurement techniques	Tuesday, September 6
AMT-P3_050	**AMT-P3:** Novel and low cost instrumentation	Tuesday, September 6
ATAS-P1_001 - ATAS-P1_049	**ATAS-P1:** Aerosol chemistry	Monday, September 5
ATAS-P2_001 - ATAS-P2_022	**AMTATAS-P2:** Source apportionment and air quality	Monday, September 5
ATAS-P3_001 - ATAS-P3-067	**ATAS-P3:** Aerosols, clouds, and new particle formation	Tuesday, September 6
ATAS-P4_001 - ATAS-P4_033	**ATAS-P4:** Atmospheric aerosol transport and modelling	Tuesday, September 6

Trianti Foyer 1st Floor | New Building Level 1 | **Poster Area 3**



Poster Area 3		
ATAS-P2_024 - ATAS-P2_120	**ATAS-P2:** Source apportionment and air quality	Monday, September 5
ATAS-P4_034 - ATAS-P4_037	**ATAS-P4:** Atmospheric aerosol transport and modelling	Tuesday, September 6
ATAS-P5_001 - ATAS-P5_077	**ATAS-P5:** Atmospheric aerosol properties and characterization	Tuesday, September 6
AT-P1_002 - AT-P1_052	**AT-P1:** Functional nanoparticles	Monday, September 5
AT-P2_001 - AT-P2_014	**AT-P2:** Electrical effects	Tuesday, September 6
AT-P3_001 - AT-P3_008	**AT-P3:** High temperature aerosols and filtration	Tuesday, September 6
AT-P4_001 - AT-P4_021	**AT-P4:** Aerosol emissions and control technologies	Tuesday, September 6
BAP-P1_001 - BAP-P1_015	**BAP-P1:** Heat and mass transfer: Experiments and simulations	Monday, September 5
BAP-P2_001 - BAP-P2_007	**BAP-P2:** Quantum chemistry of aerosol formation	Monday, September 5
BAP-P3_001 - BAP-P3_027	**BAP-P3:** Modelling of internal and external aerosol processes	Tuesday, September 6
BAP-P4_001 - BAP-P4_010	**BAP-P4:** Physical properties of aerosol particles	Tuesday, September 6
SS1-P1_001 - SS1-P1_008	**SS1-P1:** Special Session-1: Quantification of health risk from airborne particulate matter	Tuesday, September 6
SS2-P1_001 - SS2-P1_031	**SS2-P1:** Special Session-2: COVID-19, aerosols and ventilation	Monday, September 5
SS3-P1_002 - SS3-P1_011	**SS3-P1:** Special Session-3: Advanced aerosol metrology for atmospheric science and air quality	Tuesday, September 6
SS4-P1_001 - SS4-P1_006	**SS4-P1:** Special Session-4: Aerosols in the agriculture and livestock sectors	Tuesday, September 6
SS5-P1_001 - SS5-P1_023	**SS5-P1:** Special Session-5: Oxidative potential of aerosol particles and health risks	Tuesday, September 6
LP1-P1-001 - LP1-P1-007	**LP1:** Late Posters 1	Monday, September 5
LP2-P2-001 - LP2-P2-007	**LP2:** Late Posters 2	Tuesday, September 6

Megaron Athens International Conference Centre (MAICC) Overview



CONGRESS AREAS OVERVIEW		
NEW BUILDING		
TRIANTI HALL	Plenary Hall	LEVEL 0
TRIANTI FOYER RIGHT SIDE	Poster Area 1	LEVEL 0
TRIANTI FOYER LEFT SIDE	Poster Area 2	LEVEL 0
TRIANTI FOYER 1ST FLOOR	Poster Area 3	LEVEL 1
MC2	Parallel Hall	LEVEL -1
MC3	Parallel Hall	LEVEL -1
MC3.4	Parallel Hall	LEVEL -1
MULTIPURPOSE HALL	Parallel Hall	LEVEL 0
MUSES FOYER | KOKKALI FOYER	Exhibition	LEVEL 0
MAIN BUILDING		
CONFERENCE I HALL	Parallel Hall	LEVEL MEZZANINE

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- Adjustable oxidation parameters for PAM studies
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