

# Conference Agenda

## Session

### Poster Session Monday

Time: Monday, 01/Sept/2025: 5:15pm - 6:45pm

Location: Studium2000

V.le San Nicola corner, Via di Valesio, 73100 Lecce LE

## Presentations

ID: 869 / PO1: 1

### Advancing Atmospheric Research in the Eastern Mediterranean: Insights from the Cyprus Atmospheric Remote Sensing Observatory

Hossein Panahifar<sup>1</sup>, Maria Poutli<sup>1,2</sup>, George Kotsias<sup>1</sup>, Argyro Nisantzi<sup>1,2</sup>, Silas Michaelides<sup>2</sup>, Diofantos Hadjimitsis<sup>1,2</sup>, Patric Seifert<sup>3</sup>, Albert Ansmann<sup>3</sup>, Rodanthi-Elisavet Mamouri<sup>1,2</sup>

<sup>1</sup>Eratosthenes centre of excellence, Cyprus; <sup>2</sup>Department of Civil Engineering and Geomatic, Cyprus University of Technology, Limassol, 3036, Cyprus; <sup>3</sup>Leibniz Institute for Tropospheric Research (TROPOS), Leipzig, Germany

ID: 356 / PO1: 2

### Assessing the Sources of PM1 Trace Elements in the Marseille-Fos Basin through Rolling Positive Matrix Factorization Crossed-Study

Mathilde Brezins<sup>1</sup>, Benjamin Chazeau<sup>1</sup>, Nicolas Marchand<sup>1</sup>, Amandine Durand<sup>1</sup>, Grégory Gille<sup>2</sup>, Jean-Luc Jaffrezo<sup>3</sup>, Gaëlle Uzu<sup>3</sup>, Barbara D'Anna<sup>1</sup>

<sup>1</sup>Aix Marseille Univ, CNRS, LCE, Marseille, France; <sup>2</sup>AtmoSud, Regional Network for Air Quality Monitoring of Provence-Alpes-Côte-d'Azur, Marseille, France; <sup>3</sup>Univ. Grenoble Alpes, CNRS, IRD, IGE (UMR 5001), 38000 Grenoble, France

ID: 307 / PO1: 3

### Atmospheric Dry Deposition in the Central Mediterranean Seen from a Single-Particle Perspective

Marcos Eduardo Pérez Morán<sup>1</sup>, Kilian Schneiders<sup>1</sup>, Melanie Eknayan<sup>1</sup>, Fernando De Tomasi<sup>2</sup>, Pierina Ielpo<sup>3</sup>, Mark Scerri<sup>1,4</sup>, Michael Nolle<sup>5</sup>, Konrad Kandler<sup>1</sup>

<sup>1</sup>Institute for Applied Geosciences, Technical University Darmstadt, Germany; <sup>2</sup>Department of Mathematics and Physics, University of Salento, Lecce, Italy; <sup>3</sup>Institute of Atmospheric Sciences and Climate - Italian National Research Council (CNR ISAC), Lecce, Italy; <sup>4</sup>Division of Environmental Management & Planning, Institute of Earth Systems, University of Malta, Msida, Malta; <sup>5</sup>Ambient Quality and Waste Unit, Environment and Resources Authority, Marsa, Malta

ID: 559 / PO1: 4

### Characterization of an event of heat wave and particulate matter increase in Bologna

Andrea Faggi<sup>1</sup>, Erika Brattich<sup>1</sup>, Tiziano Maestri<sup>1</sup>, Laura Tositti<sup>2</sup>, Alessandro Zappi<sup>2</sup>

<sup>1</sup>Department of Physics and Astronomy "Augusto Righi", Alma Mater Studiorum - Università di Bologna, Bologna, 40120, Italy; <sup>2</sup>Department of Chemistry "Giacomo Ciamician", Alma Mater Studiorum - Università di Bologna, Bologna, 40120, Italy

ID: 1171 / PO1: 5

### Characterization of the Atmospheric Microbiome at a high-altitude station in the eastern Mediterranean using Flow Cytometry

Ernest Abboud<sup>1</sup>, Carolina Molina<sup>1,2</sup>, Sofia Gkretsi<sup>1</sup>, Romanos Foskinis<sup>1,3</sup>, Promodos Fetfatzis<sup>4</sup>, Konstantinos Granakis<sup>4</sup>, Konstantinos Eleftheriadis<sup>4</sup>, Athanasios Nenes<sup>1,2</sup>, Kalliopi Violaki<sup>1</sup>

<sup>1</sup>Laboratory of Atmospheric Processes and their Impacts, School of Architecture, Civil & Environmental Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, 1015, Switzerland; <sup>2</sup>Center for the Study of Air Quality and Climate Change, Institute of Chemical Engineering Sciences, Foundation for Research and Technology Hellas, GR-26504, Patras, Greece; <sup>3</sup>Laboratory of Environmental Remote Sensing Laboratory, School of Architecture, Civil & Environmental Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, 1015, Switzerland; <sup>4</sup>Environmental Radioactivity & Aerosol Technology for atmospheric & Climate Impact Lab, INRASTER, NCSR Demokritos 15310 Ag. Paraskevi, Attica, Greece

ID: 1174 / PO1: 6

### Drivers of cloud droplet number using a synergy of remote sensing and in situ instrumentation during the Cleancloud Helmos Orographic site experiment (CHOPIN)

Romanos Foskinis<sup>1</sup>, Nicole Clerx<sup>1</sup>, Marilena Gidarakou<sup>2</sup>, Christos Mitsios<sup>3</sup>, Carolina Molina<sup>3</sup>, Kaori Kawana<sup>3</sup>, Prodromos Fetfatzis<sup>4</sup>, Maria Gini<sup>4</sup>, Olga Zografou<sup>4</sup>, Konstantinos Granakis<sup>4</sup>, Aiden Jönsson<sup>5</sup>, Paul Zieger<sup>5</sup>, Lu Zhang<sup>6</sup>, Andreas Massling<sup>6</sup>, Mika Komppula<sup>7</sup>, Konstantinos Eleftheriadis<sup>4</sup>, Alexandros Papayannis<sup>2</sup>, Alexis Berne<sup>1</sup>, Athanasios Nenes<sup>1,3</sup>

<sup>1</sup>Ecole Polytechnique Federale de Lausanne, Switzerland; <sup>2</sup>National Technical University of Athens, Greece; <sup>3</sup>Foundation for Research and Technology Hellas, Greece; <sup>4</sup>National Center for Scientific Research Demokritos, Greece; <sup>5</sup>Stockholm University, Sweden; <sup>6</sup>Aarhus University, Denmark; <sup>7</sup>Finnish Meteorological Institute, Finland

ID: 828 / PO1: 7

### Interactions between urban heat island (UHI) and urban pollution island (UPI) under key atmospheric conditions

Andrea Cecilia<sup>1</sup>, Annalisa Di Bernardino<sup>2</sup>, Margherita Erriu<sup>2</sup>, Anna Maria Siani<sup>2</sup>, Giampietro Casasanta<sup>1</sup>, Marianna Conte<sup>1</sup>, Lorenzo Marinelli<sup>3</sup>, Stefania Argentini<sup>1</sup>

<sup>1</sup>National Research Council of Italy, Institute of Atmospheric Sciences and Climate (CNR-ISAC), Via Fosso del Cavaliere 100, 00133 Rome, Italy; <sup>2</sup>Physics Department, Sapienza University of Rome, Piazzale Aldo Moro 5, 00185 Rome, Italy; <sup>3</sup>Physics Department, University of

**ID: 977 / PO1: 8**

### **Long-term aerosol acidity in the urban center of Athens, Greece**

**Aikaterini Bougiatioti<sup>1</sup>, Kalliopi Petrinoli<sup>1,2</sup>, Iasonas Stavroulas<sup>3</sup>, Maria Tsagkaraki<sup>2</sup>, Nikolaos Mihalopoulos<sup>1</sup>**

<sup>1</sup>IERSD, National Observatory of Athens, P. Penteli, 15236, Greece; <sup>2</sup>ECPL, Department of Chemistry, University of Crete, 70013 Crete, Greece; <sup>3</sup>Center for Atmospheric Research, University of Nova Gorica, SI-5000, Nova Gorica, Slovenia

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**ID: 781 / PO1: 9**

### **Do Medicanes promote high dust concentrations in Italy? – A case study on the 2014 Mediane ‘Qendresa’**

**Franziska Vogel<sup>1</sup>, Fabio Massimo Grasso<sup>2</sup>, Umberto Rizza<sup>2</sup>, Marco Zanatta<sup>1</sup>, Angela Marinoni<sup>1</sup>**

<sup>1</sup>Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Bologna, Italy; <sup>2</sup>Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Lecce, Italy

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**ID: 551 / PO1: 10**

### **Heavy Metal(Ioid) fluxes and microbial community associated to Bulk Atmospheric Deposition in the port area of Ancona**

**Matteo Fanelli<sup>1</sup>, Marco Basili<sup>1</sup>, Grazia Marina Quero<sup>1</sup>, Emanuela Frapiccini<sup>1</sup>, Lorenzo Massi<sup>2</sup>, Federico Girolametti<sup>2</sup>, Behixhe Ajdini<sup>2</sup>, Cristina Truzzi<sup>2</sup>, Anna Annibaldi<sup>2</sup>, Pierluigi Penna<sup>1</sup>, Gian Marco Luna<sup>1</sup>, Silvia Illuminati<sup>2</sup>**

<sup>1</sup>National Research Council, CNR-IRBIM, largo Fiera della Pesca, 2, 60125, Ancona, Italy; <sup>2</sup>Department of Life and Environmental Sciences (DiSVA), Università Politecnica delle Marche, via Brece Bianche, 60131, Ancona, Italy

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**ID: 1172 / PO1: 11**

### **Characterization of the Atmospheric Microbiome in a Semi-Rural Area of Central Europe Using Flow Cytometry**

**Ernest Abboud<sup>1</sup>, Pierre Rossi<sup>2</sup>, Benoît Crouzy<sup>3</sup>, Athanasios Nenes<sup>1,4</sup>, Kalliopi Violaki<sup>1</sup>**

<sup>1</sup>Laboratory of Atmospheric Processes and their Impacts, School of Architecture, Civil & Environmental Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, 1015, Switzerland; <sup>2</sup>Central Environmental Laboratory, School of Architecture, Civil & Environmental Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, 1015, Switzerland; <sup>3</sup>Federal Office of Meteorology and Climatology MeteoSwiss, Chemin de l'Aérologie, CH-1530, Payeme, Switzerland; <sup>4</sup>Center for the Study of Air Quality and Climate Change, Institute of Chemical Engineering Sciences, Foundation for Research and Technology Hellas, GR-26504, Patras, Greece

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**ID: 760 / PO1: 12**

### **Bicycle-based mapping of black carbon across the streets of Milan**

**Valeria Paola Maldonez Balderrama<sup>1</sup>, Laura Renzi<sup>1</sup>, Luca Boniardi<sup>2</sup>, Cecilia Magnani<sup>1</sup>, Marco Rapuano<sup>1</sup>, Marco Zanatta<sup>1</sup>, Alessandro Bigi<sup>3</sup>, Ferdinando Pasqualini<sup>1</sup>, Cristina Colombi<sup>4</sup>, Angela Marinoni<sup>1</sup>**

<sup>1</sup>Institute for Atmospheric Sciences and Climate, National Research Council of Italy, CNR-ISAC, Italy; <sup>2</sup>EPIGET Lab, Department of Clinical Science and Community Health, Dipartimento di Eccellenza 2023-2027, Università degli Studi di Milano; <sup>3</sup>Dipartimento di Ingegneria 'Enzo Ferrari', University of Modena and Reggio Emilia; <sup>4</sup>UOC Qualità dell'Aria, Agenzia Regionale Protezione Ambiente (ARPA) Lombardia

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**ID: 1091 / PO1: 13**

### **URBAN EMISSIONS FATE TOWARDS SECONDARY AEROSOL FORMATION; A CHAMBER STUDY**

**Sana Farhoudian<sup>1</sup>, Rabbia Asgher<sup>1</sup>, Avinash Kumar<sup>1</sup>, Shawon Barua<sup>1</sup>, Fariba Partovi<sup>1</sup>, Matti Rissanen<sup>1,2</sup>**

<sup>1</sup>Tampere University, Finland; <sup>2</sup>University of Helsinki, Finland

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**ID: 1178 / PO1: 14**

### **Antibacterial electrospun wound dressing with flame-made Ag/SiO<sub>2</sub> nanoparticles**

**Reshma V. Ramachandran<sup>1,2</sup>, Jennifer Geara<sup>3</sup>, Maria Samara<sup>1,2</sup>, Thomas Thersleff<sup>4</sup>, Ning Xu Landén<sup>3</sup>, Georgios A. Sotiriou<sup>1,2</sup>**

<sup>1</sup>Department of Microbiology, Tumor and Cell Biology, Karolinska Institutet, Stockholm, Sweden; <sup>2</sup>Department of Chemistry, Stockholm University, Sweden; <sup>3</sup>Department of Medicine, Karolinska Institutet, Stockholm, Sweden; <sup>4</sup>Department of Cell and Molecular Biology, Karolinska Institutet, Stockholm, Sweden

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**ID: 334 / PO1: 15**

### **Decreasing or increasing pollution in the Mediterranean atmosphere? 16 years of black carbon observations at the Monte Cimone GAW Global Station integrated with FLEXPART and COPERNICUS products.**

**Marco Zanatta<sup>1</sup>, Paolo Bonasoni<sup>1</sup>, Paolo Cristofanelli<sup>1</sup>, Sabine Eckhardt<sup>2</sup>, Nikolaos Evangelou<sup>2</sup>, Cecilia Magnani<sup>1</sup>, Davide Putero<sup>1</sup>, Laura Renzi<sup>1</sup>, Franziska Vogel<sup>1</sup>, Angela Marinoni<sup>1</sup>**

<sup>1</sup>Institute of Atmospheric Sciences and Climate – National Research Council of Italy, Bologna, Italy; <sup>2</sup>Norwegian Institute for Air Research (NILU), Kjeller, Norway

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**ID: 856 / PO1: 16**

### **Effects of Soil Amendments on Soil Carbon Sequestration Stability and Nutrient Availability in Fukuyama Lettuce: Applications of Biochar and Black Soldier Fly Frass**

**Man-Chu Hsiao, Chang-Tanh Chang**

Department of Environmental Engineering, National Ilan University, Yilan City, 260007, Taiwan, Taiwan

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**ID: 619 / PO1: 17**

### **Investigating New Particle Formation and Growth over an Urban Location in the Eastern Mediterranean**

**Yinon Rudich**

Weizmann Institute, Israel

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ID: 867 / PO1: 18

**The Italian Automated Lidar Ceilometer Network ALICENET: From Near Real-time Monitoring to Long-term Characterisation of Aerosol Vertical Distributions across Italy**

**Francesca Barnaba<sup>1</sup>, Annachiara Bellini<sup>2</sup>, Alessandro Bracci<sup>1</sup>, Henri Diemoz<sup>2</sup>, Luca Di Liberto<sup>1</sup>, Caterina Mapelli<sup>1,3</sup>, Ferdinando Pasqualini<sup>1</sup>**

<sup>1</sup>CNR-ISAC, Italy; <sup>2</sup>ARPA Valle d'Aosta, Italy; <sup>3</sup>CNR-IMAA, Italy

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ID: 501 / PO1: 19

**State of the art of lunar sun-photometry algorithms and application to Izaña 2023 MAPP campaign**

**Monica Campanelli<sup>1</sup>, Victor Estelles<sup>2</sup>, Gaurav Kumar<sup>2</sup>, Africa Barreto<sup>3</sup>, Natalia Kouremeti<sup>4</sup>, Roberto Roman<sup>5</sup>, Ramiro Gonzalez<sup>2</sup>, Pablo Gonzalez<sup>3</sup>, Lionel Doppler<sup>6</sup>, Mauro Mazzola<sup>7</sup>, Anca Nemuc<sup>8</sup>, Stefano Casadio<sup>9</sup>, AnnaMaria Iannarelli<sup>9</sup>, Paola Russo<sup>10</sup>**

<sup>1</sup>National Research Council, Institute of Atmospheric Sciences and Climate, Rome, Italy; <sup>2</sup>Department de Física de la Terra i Termodinàmica, Universitat de València, Burjassot, 46100, Spain; <sup>3</sup>Izaña Atmospheric Research Center, Agencia Estatal de Meteorología (AEMET), Santa Cruz de Tenerife, Spain; <sup>4</sup>Physikalisch-Meteorologisches Observatorium Davos, World Radiation Center (PMOD/WRC), Switzerland; <sup>5</sup>Group of Atmospheric Optics (GOA-UVa), Universidad de Valladolid, 47011, Valladolid, Spain; <sup>6</sup>Deutscher Wetterdienst (DWD), Meteorologisches Observatorium Lindenberg (MOL), Germany; <sup>7</sup>National Research Council, Institute of Polar Sciences, Bologna 40129, Italy; <sup>8</sup>National Institute of R&D for Optoelectronics, INOE, Magurele, Romania; <sup>9</sup>SERCO s.p.a., Rome, Italy; <sup>10</sup>Universidad de la República, Rivera 1350, Salto, 50000, Uruguay

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ID: 1028 / PO1: 20

**Ground-Based Comparison and Validation of ATLID/EarthCARE L2 Aerosol and Cloud Products: Integrating E-PROFILE and AERONET Data**

**Onel Rodríguez-Navarro<sup>1,2</sup>, Jorge Muñoz-Rosado<sup>1,2</sup>, Alberto Cazorla<sup>1,2</sup>, Roberto Román<sup>3,4</sup>, Alexander Haeefe<sup>5</sup>, Eric Sauvageat<sup>5</sup>, Ana Del Águila<sup>1,2</sup>, Daniel Pérez-Ramírez<sup>1,2</sup>, Lucas Alados-Arboledas<sup>1,2</sup>, Francisco Navas-Guzmán<sup>1,2</sup>**

<sup>1</sup>Andalusian Institute for Earth System Research (IISTA), University of Granada, Spain; <sup>2</sup>Applied Physics Department, University of Granada, Granada 18071, Spain; <sup>3</sup>Group of Atmospheric Optics (GOA-UVa), University of Valladolid, 47011, Valladolid, Spain; <sup>4</sup>Laboratory of Disruptive Interdisciplinary Science (LaDIS), Valladolid, Spain; <sup>5</sup>Federal Office of Meteorology and Climatology, MeteoSwiss, Payerne, Switzerland

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ID: 516 / PO1: 21

**Optical and microphysical properties of local and long-range transport biomass burning aerosols with remote sensing techniques**

**Riccardo Damiano<sup>1</sup>, Alessia Sannino<sup>1</sup>, Zeeshan Ali<sup>1</sup>, Matteo Manzo<sup>1</sup>, Salvatore Spinosa<sup>1</sup>, Salvatore Amoroso<sup>1</sup>, Antonella Boselli<sup>2</sup>**

<sup>1</sup>University Federico II of Naples, Italy; <sup>2</sup>Consiglio Nazionale delle Ricerche, Istituto di Metodologie per l'Analisi Ambientale (IMAA-CNR)

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ID: 346 / PO1: 22

**Validation of aerosol extinction and mass profiles derived from elastic LIDARs using in-situ measurements**

**Martine Collaud Coen<sup>1</sup>, Maxime Hervo<sup>1</sup>, Lena Fasnacht<sup>1</sup>, Melania van Hove<sup>2</sup>, Benjamin Brem<sup>3</sup>, Robin Modini<sup>3</sup>, Martin Gysel-Beer<sup>3</sup>, Augustin Mortier<sup>4</sup>, Martine Collaud Coen<sup>5</sup>, Alexander Haeefe<sup>1</sup>**

<sup>1</sup>MeteoSwiss, Switzerland; <sup>2</sup>Institut Pierre Simon Laplace, CNRS, France; <sup>3</sup>PSI Center for Energy and Environmental Sciences, Switzerland; <sup>4</sup>Norwegian Meteorological Institute, Oslo, Norway; <sup>5</sup>Laboratory for Air Pollution/Environmental Technology, Empa, Switzerland

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ID: 1187 / PO1: 23

**Deep-Pathfinder algorithm for ground-based assessment of ATLID/EarthCARE L2 aerosol product**

**Laurel Molina-Párraga<sup>1,2</sup>, Ana del Águila<sup>1,2</sup>, Jorge Muñoz-Rosado<sup>1,2</sup>, Onel Rodríguez-Navarro<sup>1,2</sup>, Alexander Haeefe<sup>3</sup>, Eric Sauvageat<sup>3</sup>, Francisco Navas-Guzmán<sup>1,2</sup>, Lucas Alados-Arboledas<sup>1,2</sup>**

<sup>1</sup>Andalusian Institute for Earth System Research (IISTA-CEAMA), Granada, 18071, Spain; <sup>2</sup>Applied Physics Department, University of Granada, Granada 18071, Spain; <sup>3</sup>Federal Office of Meteorology and Climatology, MeteoSwiss, Payerne, Switzerland

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ID: 939 / PO1: 24

**Enhanced Fire Detection in Industrial Complexes Using Scanning LiDAR Technology**

**Kwanchul Kim<sup>1</sup>, Seong-Min Kim<sup>1</sup>, Sung-Jo Kim<sup>1</sup>, Sae-ho Oh<sup>1</sup>, Gahye Lee<sup>1</sup>, Min-kyung Sung<sup>1</sup>, Jeong-Min Park<sup>1</sup>, Youngmin Noh<sup>2</sup>, Kwonho Lee<sup>3</sup>, Young J. Kim<sup>3</sup>, Sungchul Choi<sup>4</sup>, Changgi Choi<sup>4</sup>, Woosuk Choi<sup>5</sup>, Chunsang Hong<sup>6</sup>**

<sup>1</sup>Advanced Institute of Convergence Technology, Korea, Republic of (South Korea); <sup>2</sup>Pukyong National University, Republic of (South Korea); <sup>3</sup>Gangneung-Wonju National University, Republic of (South Korea); <sup>4</sup>Samwoo TCS Co., Republic of (South Korea); <sup>5</sup>Sejong University, Republic of (South Korea); <sup>6</sup>Korea University, Republic of (South Korea)

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ID: 595 / PO1: 25

**Integrating remote sensing and in-situ measurements to assess the impact of PBL dynamics on air pollution in Milan, Po valley (Italy)**

**Camilla Perfetti<sup>1,2</sup>, Francesca Barnaba<sup>3</sup>, Annachiara Bellini<sup>3</sup>, Alessandro Bracci<sup>2</sup>, Marco Zanatta<sup>2</sup>, Laura Renzi<sup>2</sup>, Luca Di Liberto<sup>3</sup>, Ferdinando Pasqualini<sup>2</sup>, Angela Marinoni<sup>2</sup>**

<sup>1</sup>Department of Physics and Astronomy, University of Bologna, Bologna, 40126, Italy; <sup>2</sup>Institute of Atmospheric Sciences and Climate, National Research Council of Italy, Bologna, 40129, Italy; <sup>3</sup>Institute of Atmospheric Sciences and Climate, National Research Council of Italy, Rome, 00133, Italy

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ID: 771 / PO1: 26

**Remote Sensing Observations of Aerosol-Cloud Interactions in a Nitrogen Polluted Environment**

**Namita Sinha<sup>1</sup>, George Biskos<sup>1,2</sup>, Farhan R. Nursanto<sup>3</sup>, Herman Russchenberg<sup>1</sup>, Isabelle Steinke<sup>1</sup>, Ulrike Dusek<sup>4</sup>**

<sup>1</sup>Faculty of Civil Engineering and Geosciences, Delft University of Technology, Netherlands, The; <sup>2</sup>Climate and Atmosphere Research Center, The Cyprus Institute, Nicosia 2121, Cyprus; <sup>3</sup>Meteorology and Air Quality (MAQ), Wageningen University and Research (WUR), the Netherlands; <sup>4</sup>Centre for Isotope Research (CIO), University of Groningen, Groningen 9747 AG, the Netherlands

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**ID: 766 / PO1: 27**

### **Synergy of PollyXT Lidar & sun/sky photometer to retrieve aerosol properties utilizing GRASP algorithm in Limassol, Cyprus**

**Athina Savva<sup>1,2</sup>, Argyro Nisantzi<sup>1,2</sup>, Francesco Scarlatti<sup>1</sup>, Anton Lopatin<sup>3</sup>, Diofantos Hadjimitsis<sup>1,2</sup>, Rodanthi Elisavet Mamouri<sup>1,2</sup>**

<sup>1</sup>Eratosthenes Centre of Excellence, Limassol, 3012, Cyprus; <sup>2</sup>Department of Civil Engineering & Geomatics, Cyprus University of Technology, Limassol, 3036, Cyprus; <sup>3</sup>GRASP SAS, Villeneuve-d'Ascq, 59650, France

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**ID: 700 / PO1: 28**

### **Assessment of microplastic particle exposure in indoor football halls by correlative microscopy**

**Maike Stange<sup>1</sup>, Torben Peters<sup>1</sup>, John Schumann<sup>1</sup>, Nico Dziurawitz<sup>1</sup>, Carmen Thim<sup>1</sup>, Asmus Meyer-Plath<sup>1</sup>, Monica Andreassen<sup>2</sup>, Berit Brunstad Granum<sup>2</sup>, Igor Snapkow<sup>2</sup>, Raymond Pieters<sup>3</sup>, Hubert Dirven<sup>2</sup>, Dirk Broßell<sup>1</sup>**

<sup>1</sup>Federal Institute for Occupational Safety and Health, Germany; <sup>2</sup>Norwegian Institute of Public Health, Norway; <sup>3</sup>Utrecht University, Netherlands

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**ID: 1106 / PO1: 29**

### **Optimized Flotation Separation for the Characterization of Airborne Microplastics**

**Andrea Fricano<sup>1</sup>, Francesca Buiarelli<sup>1</sup>, Fabio Candiano<sup>1</sup>, Giulia Simonetti<sup>1</sup>, Patrizia Di Filippo<sup>2</sup>, Donatella Pomata<sup>2</sup>, Carmela Riccardi<sup>2</sup>**

<sup>1</sup>Department of Chemistry, University of Rome "Sapienza", Rome, 00185, Italy; <sup>2</sup>Department of technological innovations and safety of plants, products and anthropic settlements, Italian Workers' Compensation Authority, Rome, 00143, Italy

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**ID: 359 / PO1: 30**

### **Study of airborne microplastics emissions in workplaces**

**Federica Bianchi<sup>1</sup>, Marianna Pascucci<sup>1</sup>, Elena Messina<sup>1</sup>, Cristina Riccucci<sup>1</sup>, Adriana Pietrodangelo<sup>2</sup>, Donatella Pomata<sup>3</sup>, Gabriella Di Carlo<sup>1</sup>**

<sup>1</sup>Institute for the Study of Nanostructured Materials (ISMN), National Research Council (CNR), Italy; <sup>2</sup>Institute of Atmospheric Pollution (IIA), National Research Council (CNR); <sup>3</sup>Department of technological innovations and safety of plants, products and anthropic settlements, Italian Workers' Compensation Authority

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**ID: 428 / PO1: 31**

### **Airborne Nanoplastic Exposure Platform: From In-vitro to In-vivo**

**Yen Thi-Hoang Le, Hanjin Yoo, Ki-Joon Jeon**

Inha University, Korea, Republic of (South Korea)

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**ID: 1031 / PO1: 32**

### **Atmospheric microplastics modelling and quantification using Gibbs sampler**

**Ondřej Tichý<sup>1</sup>, Nikolaos Evangelou<sup>2</sup>, Václav Košík<sup>1</sup>, Václav Smidl<sup>1</sup>**

<sup>1</sup>Institute of Information Theory and Automation, Czech Academy of Sciences, Prague, 18200, Czech Republic; <sup>2</sup>NILU, ATMOS, Norway

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**ID: 864 / PO1: 33**

### **Airborne Microplastic: Dry vs. Wet Precipitation Effects and Morphological Evaluation**

**Yuliya Logvina, Helena Ribeiro, Luis Pinto da Silva, Joaquim Esteves da Silva**

University of Porto, Portugal

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**ID: 656 / PO1: 34**

### **Analysis of microplastics in airborne particulate matter (PM) in Krakow, south Poland: Review of separation techniques, in vitro toxicity, and health impacts**

**Dominika Uchmanowicz<sup>1</sup>, Katarzyna Styszko<sup>1</sup>, Madawan Chootham<sup>1</sup>, Justyna Pyssa<sup>1</sup>, Xymena Badura<sup>2</sup>**

<sup>1</sup>AGH University of Kraków, Poland; <sup>2</sup>Oil and Gas Institute – National Research Institute in Kraków, Poland

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**ID: 727 / PO1: 35**

### **Characterization of microplastics in the air and evaluation of the cytotoxicity of two plastics and additives on A549 alveolar cells and RPMI 2650 nasal cells**

**Camille Bonnefous, Frédéric Ledoux, Yann Landkocz**

Unité de Chimie Environnementale et Interactions sur le Vivant UR4492, Université du Littoral Côte d'Opale (ULCO), 145 avenue Maurice Schumann, 59140 Dunkerque, France

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**ID: 324 / PO1: 36**

### **Indoor and Outdoor Airborne Microplastics in School Settings**

**Steigvilė Byčenkienė<sup>1</sup>, Ieva Uogintė<sup>1</sup>, Lina Davulienė<sup>1</sup>, Sergej Šemčuk<sup>1</sup>, Vadimas Dudoitis<sup>1</sup>, Simonas Kecorius<sup>1,2</sup>, Mario Lovric<sup>3,4</sup>**

<sup>1</sup>SRI Center for physical sciences and technology, Lithuania; <sup>2</sup>Institute of Epidemiology, Helmholtz Zentrum München, 85764 Neuherberg, Germany; <sup>3</sup>The Lisbon Council, 1040 Brussels, Belgium; <sup>4</sup>Institute for Anthropological Research, 10000 Zagreb, Croatia

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**ID: 239 / PO1: 37**

## Microplastic particles in atmospheric bulk deposition samples in Berlin, Germany

Andreas Held<sup>1</sup>, Sarmite Kernchen<sup>2</sup>, Martin G.J. Löder<sup>2</sup>, Christian Laforsch<sup>2</sup>

<sup>1</sup>TU Berlin, Germany; <sup>2</sup>University of Bayreuth, Germany

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**ID: 374 / PO1: 38**

## Quantification of Near Real-Time Tyre Wear Particles in the Ambient PM<sub>2.5</sub> Using Online Aerosol Mass Spectrometer

Rongyan Fang<sup>1</sup>, Gang Chen<sup>1</sup>, Max Priestman<sup>1</sup>, Henry Blake<sup>1</sup>, Eric Auyang<sup>1</sup>, Stephanie Wright<sup>1,2</sup>, David C. Green<sup>1,2</sup>

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**ID: 330 / PO1: 39**

## Size segregated, highly-time resolved elemental source apportionment at two European transportation hotspots

Laurence Christian Windell<sup>1</sup>, Kristina Glojek<sup>2</sup>, Benjamin Chazeau<sup>1,3</sup>, Andres Alastuey<sup>2</sup>, Xavier Querol<sup>2</sup>, Manos Ioannidis Manousakas<sup>4</sup>, Cristina Colombi<sup>5</sup>, Roberta Vecchi<sup>6</sup>, Kaspar Rudolf Daellenbach<sup>1</sup>, Jay Gates Slowik<sup>1</sup>, André Stephan Henry Prévôt<sup>1</sup>

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**ID: 1037 / PO1: 40**

## Electrical Charging State and Effective Density of Brake Wear Particles

Sara Bengtsdotter<sup>1</sup>, Jussi Hoivala<sup>2</sup>, Yezhe Lyu<sup>3</sup>, Philipp Wacker<sup>1</sup>, Vilhelm Malmberg<sup>1,4</sup>, Topi Rönkkö<sup>2</sup>, Jens Wahlström<sup>3</sup>, Joakim Pagels<sup>1,4</sup>

<sup>1</sup>Department of Ergonomics and Aerosol Technology, Lund University, Sweden; <sup>2</sup>Aerosol Physics Laboratory, Physics Unit, Tampere University, Finland; <sup>3</sup>Department of Industrial and Mechanical Sciences, Lund University, Sweden; <sup>4</sup>Nanolund, Lund University, Sweden

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**ID: 1075 / PO1: 41**

## Investigations of Gaseous Emissions from Vehicle Braking Process with Chemical Ionization Mass Spectrometry

Wandera Kisimbiri<sup>1,2</sup>, Romain Couval<sup>3</sup>, Karine Elihn<sup>1</sup>, Ulf Olofsson<sup>3</sup>, Sophie Haslett<sup>1,2</sup>, Sarah Steimer<sup>1,2</sup>

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**ID: 1087 / PO1: 42**

## On-Road Measurements of Wetness, Road Dust and Tyre Wear Particle from Truck

Sara Janhäll<sup>1,3</sup>, Joacim Lundberg<sup>2</sup>, Sebastian Schill<sup>1</sup>, Jonas Sjöblom<sup>1</sup>

<sup>1</sup>Chalmers; <sup>2</sup>Lunds University; <sup>3</sup>RISE

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**ID: 290 / PO1: 43**

## Identification of Non-Exhaust Emissions in Laboratory and Field Measurements

Seongho Jeong<sup>1</sup>, Julian Schade<sup>1</sup>, Carsten Neukirchen<sup>1</sup>, Michael Maeder<sup>2</sup>, Christian Trapp<sup>3</sup>, Thomas Adam<sup>1</sup>

<sup>1</sup>Department of Mechanical Engineering, Institute of Chemistry and Environmental Engineering, University of the Bundeswehr Munich; <sup>2</sup>HDC Blueprints GmbH; <sup>3</sup>Department of Mechanical Engineering, Institute of Energy and Power Train Technology, University of the Bundeswehr Munich

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**ID: 299 / PO1: 44**

## An experimental characterization of PM emissions from railway braking events for the design of sustainable brake pads

Gianluigi De Falco<sup>1</sup>, Giuseppe Russo<sup>2</sup>, Vittorio De Soccio<sup>2</sup>, Andrea D'Anna<sup>3</sup>

<sup>1</sup>STEMS - CNR, Italy; <sup>2</sup>CoFren S.r.L., Italy; <sup>3</sup>DICMAPI - University of Naples "Federico II", Italy

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**ID: 849 / PO1: 45**

## Chemical and Morphological Characterisation of Particulate Matter from Brake Pads

Cecilia Gomiero<sup>1,3</sup>, Enrico Casamassa<sup>2</sup>, Giovanna Gautier di Confiengo<sup>3</sup>, Carmela Russo<sup>3</sup>, Barbara Apicella<sup>3</sup>, Maria Giulia Faga<sup>3</sup>, Dominika Zabiegaj<sup>4</sup>, Giuliana Magnacca<sup>1</sup>

<sup>1</sup>Department of Chemistry and NIS Interdepartmental Centre, University of Turin, Italy; <sup>2</sup>Raicam Industrie S.r.l., Bruzolo, Italy; <sup>3</sup>Institute of Science and Technology for Sustainable Energy and Mobility (STEMS) - CNR, Italy; <sup>4</sup>Faculty of Engineering and Environment, Northumbria University, Newcastle upon Tyne, United Kingdom

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**ID: 838 / PO1: 46**

## Chemical composition of brake wear particles – results from two different brake pads

Sanna Saarikoski<sup>1</sup>, Minna Aurela<sup>1</sup>, Anssi Järvinen<sup>2</sup>, Jussi Hoivala<sup>3</sup>, Sami Harni<sup>1</sup>, Katariina Kylämäki<sup>3</sup>, Hilkka Timonen<sup>1</sup>, Päivi Aakko-Saksa<sup>2</sup>, Topi Rönkkö<sup>3</sup>

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**ID: 793 / PO1: 47**

## Impact of Brake Pad Composition on Non-Exhaust Particle Emissions

**ID: 622 / PO1: 48**

### **Size distributions and black carbon emissions from two comparable brake pads**

**Jussi Hoivala<sup>1</sup>, Sanna Saarikoski<sup>2</sup>, Minna Aurela<sup>2</sup>, Kimmo Teinilä<sup>2</sup>, Sami Harni<sup>2</sup>, Katariina Kylämäki<sup>1</sup>, Hilikka Timonen<sup>2</sup>, Anssi Järvinen<sup>3</sup>, Topi Rönkkö<sup>1</sup>**

<sup>1</sup>Tampere University, Finland; <sup>2</sup>Finnish Meteorological Institute, Finland; <sup>3</sup>VTT Technical Research Centre of Finland, Finland

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**ID: 302 / PO1: 49**

### **Characterisation and Tribological Performance of Brake Wear Emissions**

**Aleandro Diana<sup>1,4</sup>, Silvia Comis<sup>1,4</sup>, Stefano Bertinetti<sup>1</sup>, Minghui Tu<sup>2</sup>, Lucas Bard<sup>2</sup>, Mery Malandrino<sup>1,4</sup>, Agusti Sin<sup>3,4</sup>, Ulf Olofsson<sup>2</sup>**

<sup>1</sup>Università degli studi di Torino, Italy; <sup>2</sup>KTH Royal Institute of Technology, Sweden; <sup>3</sup>ITT Friction Technologies, Italy; <sup>4</sup>UniTo-ITT JointLab, Italy

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**ID: 151 / PO1: 50**

### **The Effect of Collection Systems in TRWP Measurements: Impacts on Physical and Chemical Characterization**

**Melis Seren Celenlioglu<sup>1</sup>, Roberta Vecchi<sup>1</sup>, Fabius Epple<sup>2</sup>, Manuel Löber<sup>3</sup>, Nina Reijrink<sup>3</sup>, Sven Reiland<sup>2</sup>, Franz Philipps<sup>2</sup>**

<sup>1</sup>Department of Physics, University of Milano, Italy; <sup>2</sup>Institute of Vehicle Concepts, German Aerospace Center, Germany; <sup>3</sup>Institute of Combustion Technology, German Aerospace Center, Germany

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**ID: 152 / PO1: 51**

### **Evaluating the Repeatability of Tire Wear Particle Measurements in a Novel Housing-Based Collection System**

**Melis Seren Celenlioglu<sup>1</sup>, Roberta Vecchi<sup>1</sup>, Fabius Epple<sup>2</sup>, Manuel Löber<sup>3</sup>, Nina Reijrink<sup>3</sup>, Sven Reiland<sup>2</sup>, Franz Philipps<sup>2</sup>**

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**ID: 946 / PO1: 52**

### **High Time Resolution Quantification of PM2.5 Oxidative Potential and Reactive Oxygen Species**

**Steven J. Campbell<sup>1</sup>, Gang Chen<sup>1</sup>, Alexandre Barth<sup>2</sup>, Philip B. Punter<sup>1,3</sup>, Anja H. Tremper<sup>1</sup>, Max Priestman<sup>1</sup>, Markus Kalberer<sup>2</sup>, David C. Green<sup>1,3</sup>**

<sup>1</sup>Imperial College London, United Kingdom; <sup>2</sup>University of Basel; <sup>3</sup>NIHR HPRU in Environmental Exposures and Health, Imperial College London, UK

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**ID: 943 / PO1: 53**

### **International intercomparison of methodologies for measuring the oxidative potential of PM using ascorbic acid assay**

**Anouk Marsal<sup>1</sup>, Gaëlle Uzu<sup>1</sup>, Pamela A. Dominutti<sup>1</sup>, Cécile Tassel<sup>1</sup>, Stephan Houdier<sup>1</sup>, Jean-Luc Jaffrezo<sup>1</sup>, Fabrizia Cavalli<sup>2</sup>, Jean-Philippe Putaud<sup>2</sup>, Ian S Mudway<sup>3</sup>, Athanasios Nenes<sup>4,5</sup>, Aikaterini Bougiatioti<sup>6</sup>, Despina Paraskevopoulou<sup>6</sup>, Nikolaos Mihalopoulos<sup>6</sup>, Xavier Querol<sup>7</sup>, Gerard Hoek<sup>8</sup>, Roy M. Harrison<sup>9</sup>**

<sup>1</sup>University Grenoble Alpes, France; <sup>2</sup>European Commission, Joint Research Centre (JRC), Ispra, Italy; <sup>3</sup>MRC PHE Centre for Environment and Health, King's College London, UK; <sup>4</sup>Institute of Chemical Engineering Sciences, Foundation for Research and Technology Hellas, Patras, Greece; <sup>5</sup>Laboratory of Atmospheric Processes and their Impacts, Institute of Environmental Engineering, École Polytechnique Fédérale de Lausanne, Switzerland; <sup>6</sup>Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece; <sup>7</sup>Institute of Environmental Assessment and Water Research (IDAEA-CSIC), Barcelona, Spain; <sup>8</sup>IRAS, Division of Environmental Epidemiology, Utrecht University, The Netherlands; <sup>9</sup>Division of Environmental Health and Risk Management, Earth and Environmental Sciences, University of Birmingham, UK

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**ID: 776 / PO1: 54**

### **Oxidative potential of fine aerosols in sleeping micro-environments: a one-year study in Lisbon area dwellings**

**Sara Gonçalves<sup>1,2</sup>, Carla Gamelas<sup>2,3</sup>, Sergio Mendez<sup>2</sup>, Joana Belo<sup>1</sup>, Joana Lage<sup>2,4</sup>, Susana Marta Almeida<sup>2</sup>, Sandra Cabo Verde<sup>2</sup>, Nuno Canha<sup>2,5</sup>**

<sup>1</sup>Health & Technology Research Center (H&TRC), Escola Superior de Tecnologia da Saúde (ESTeSL), Instituto Politécnico de Lisboa (IPL), Portugal; <sup>2</sup>Centro de Ciências e Tecnologias Nucleares (C2TN), Instituto Superior Técnico, Universidade de Lisboa, Portugal; <sup>3</sup>Instituto Politécnico de Setúbal, Escola Superior de Tecnologia de Setúbal, Portugal; <sup>4</sup>Faculdade de Engenharia, Universidade Lusófona - Centro Universitário Lisboa, Portugal; <sup>5</sup>HyLab - Green Hydrogen Collaborative Laboratory, Portugal

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**ID: 578 / PO1: 55**

### **Particle Toxicity and its Drivers in India: from Regional to Local Spatial Scales**

**Shreya Dubey, Harish Phuleria**

Indian Institute of Technology Bombay, India

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**ID: 708 / PO1: 56**

### **Global Health Map: Coupling EMAC and KM-SUB-ELF to estimate air pollution health effects using accurate iron soluble fractions**

**Matteo Krüger<sup>1</sup>, Klaus Klingmüller<sup>1</sup>, Simon Rosanka<sup>2</sup>, Johannes Lelieveld<sup>1</sup>, Ulrich Pöschl<sup>1</sup>, Andrea Pozzer<sup>1</sup>, Thomas Berkemeier<sup>1</sup>**

<sup>1</sup>Max Planck Institute for Chemistry, Mainz, Germany; <sup>2</sup>Institute of Energy and Climate Research, Jülich, Germany

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**ID: 119 / PO1: 57**

## Real-Time Oxidative Potential Monitoring: Performance of DTT and FOX-Based Systems

Thomas Audoux<sup>1,2</sup>, Jean-Jacques Sauvain<sup>3</sup>, Manuella Ghanem<sup>2</sup>, Jean-Baptiste Lily<sup>2</sup>, Esperanza Perdrix<sup>1</sup>, Guillaume Suarez<sup>3</sup>, Laurent Y. Alleman<sup>1</sup>, Davy Rousset<sup>2</sup>

<sup>1</sup>Center for Energy and Environment, IMT Nord Europe, Institut Mines-Télécom, Université de Lille, Lille, France; <sup>2</sup>Pollutants Metrology Department, Institut National de Recherche et de Sécurité (INRS), Vandœuvre-lès-Nancy, France; <sup>3</sup>Department of Occupational and Environmental Health, Center for Primary Care and Public Health (Unisanté), University of Lausanne, Epalinges, Switzerland

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ID: 282 / PO1: 58

## Characterization of PM<sub>2.5</sub> and its oxidative potential in three regions of the South Italy

Daniela Cesari<sup>1</sup>, Caterina Mapelli<sup>1</sup>, Adelaide Dinoi<sup>1</sup>, Daniela Chirizzi<sup>2</sup>, Antonio Pennetta<sup>1</sup>, Giuseppe Deluca<sup>1</sup>, Daniele Contini<sup>1</sup>

<sup>1</sup>Institute of Atmospheric Sciences and Climate - ISAC-CNR, Lecce, 73100, Italy; <sup>2</sup>Clinical Pathology and Microbiology Unit, Vito Fazzi General Hospital, Lecce, 73100, Italy

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ID: 780 / PO1: 59

## Investigating PM<sub>2.5</sub> Toxicity: The Initial Comprehensive OP Study in Australia Utilising Various Acellular Assays

Saima Iram<sup>1</sup>, Rosemary Fedele<sup>2</sup>, Svetlana Stevanovic<sup>1</sup>

<sup>1</sup>Deakin University, Australia; <sup>2</sup>Environment Protection Authority Victoria

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ID: 785 / PO1: 60

## Buildings located in valley cities : An original study for the characterization of the human exposure to the infiltrated outdoor air with measurements of oxidative potential

Diana Decilap<sup>1,3</sup>, Benjamin Golly<sup>1</sup>, Jean-Luc Besombes<sup>2</sup>, Gaëlle Guyot<sup>3</sup>, Albane Barbero<sup>1,4</sup>, Jean-Luc Jaffrezo<sup>4</sup>, Gaëlle Uzu<sup>4</sup>

<sup>1</sup>LOCIE, University of Savoie Mont-Blanc-CNRS, France; <sup>2</sup>EDyTeM, University of Savoie Mont-Blanc-CNRS, France; <sup>3</sup>Research Team BPE, CEREMA, France; <sup>4</sup>IGE, CNRS-IRD-University Grenoble Alpes, France

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ID: 316 / PO1: 61

## Chemical characterization and Oxidative Potential of fine particulate matter from rural, urban and industrial sites in Sicily within the NOSE 2 project

Marco Rapuano<sup>1</sup>, Matteo Rinaldi<sup>1</sup>, Stefano Decesari<sup>1</sup>, Marco Paglione<sup>1</sup>, Tony Landi<sup>1</sup>, Salvatore Sodano<sup>1,4</sup>, Daniele Contini<sup>2</sup>, Eva Merico<sup>2</sup>, Daniela Cesari<sup>2</sup>, Anna Abita<sup>3</sup>, Lucia Basiricò<sup>3</sup>, Nicolò Tirone<sup>3</sup>, Paolo Bonasoni<sup>1</sup>

<sup>1</sup>Institute of Atmospheric Sciences and Climate (CNR-ISAC), National Research Council of Italy, Bologna, 40129, Italy; <sup>2</sup>Institute of Atmospheric Sciences and Climate (CNR-ISAC), National Research Council of Italy, Lecce, 73100, Italy; <sup>3</sup>Regional Agency for the Environmental Protection Sicily (ARPA Sicilia), Palermo, 90149, Italy; <sup>4</sup>Now at University of Tasmania, Hobart, 7001, Australia

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ID: 123 / PO1: 62

## PM<sub>2.5</sub> oxidative potential at urban and rural sites of the western Mediterranean basin

Nuria Galindo

Miguel Hernández University of Elche, Spain

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ID: 1129 / PO1: 63

## Source apportionment of PM<sub>2.5</sub> oxidative potential at urban and rural sites of the western Mediterranean basin

Álvaro Clemente María, Noelia Gómez Sánchez, Nuria Galindo Corral, Marina Alfosea Simón, José Francisco Nicolás Aguilera, Javier Crespo Mira, Eduardo Yubero Funes

Miguel Hernández University, Spain

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ID: 163 / PO1: 64

## Differences in oxidative potential between rural and urban locations in the Netherlands and related source attributions for PM<sub>10</sub>

Marloes Fleur van Os<sup>1</sup>, Johannes Cornelis Esveld<sup>1</sup>, Baye Toulaye Pehan Thera<sup>1</sup>, Floris Pekel<sup>1</sup>, Anouk Marsal<sup>2</sup>, Gaëlle Uzu<sup>2</sup>

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ID: 190 / PO1: 65

## Field deployment of simultaneous particulate mass and DTT consumption monitoring system for coarse PM and PM<sub>2.5</sub>

Hiroyuki Hagino<sup>1</sup>, Masaki Ohata<sup>2</sup>, Chikako Cheong<sup>2</sup>, Yuji Fujitani<sup>3</sup>, Mizuo Kajino<sup>4</sup>

<sup>1</sup>Japan Automobile Research Institute (JARI), Japan; <sup>2</sup>National Institute of Advanced Industrial Science and Technology (AIST), Japan; <sup>3</sup>National Institute for Environmental Studies (NIES), Japan; <sup>4</sup>Meteorological Research Institute (MRI), Japan

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ID: 936 / PO1: 66

## Next-Gen Aerosol Tech: SAW-based Aerosol Sources for Industrial Applications

Stefanie Hartmann<sup>1,2</sup>, Mehrzad Roudini<sup>1,2</sup>, Uhland Weißker<sup>1,2</sup>, Edwin Zschetsche<sup>2</sup>, Andreas Winkler<sup>1,2</sup>

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ID: 336 / PO1: 67

## Exploring Nanostructured Permalloy Particles Prepared by Aerosol Process for Power Converter component in Electronics

Eka Lutfi Septiani, Takashi Ogi

Hiroshima University, Japan

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ID: 615 / PO1: 68

**Direct Synthesis of Silica-coated Iron (Fe@SiO<sub>2</sub>) Particles Using an Aerosol Process**

**Delyana Ratnasari, Eka Lutfi Septiani, Takashi Ogi**

Hiroshima University, Japan

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ID: 1183 / PO1: 69

**Light patterns for colorizations**

**Bingyan Liu, Jicheng Feng**

School of Physical Science and Technology, ShanghaiTech University, Shanghai, 201210, China

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ID: 859 / PO1: 70

**An Endoscope-sized Acoustofluidic Aerosol Generator for Minimally Invasive Medicine and Technical Applications**

**Andreas Winkler, Andreas Büst, Mehrzad Roudini, Steve Wohlrab**

Leibniz IFW Dresden, Germany

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ID: 1184 / PO1: 71

**Faraday lithography**

**Yuxiang Yin, Bingyan Liu, Jicheng Feng**

shanghaitech University, China, People's Republic of

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ID: 593 / PO1: 72

**Removal of Sulfur Compounds from Pyrolysis Oil using Cu-MOF Beads**

**You-Yu Dong<sup>1</sup>, Joy Thomas<sup>2</sup>, Chang-Tang Chang<sup>1</sup>**

<sup>1</sup>National Ilan University, Taiwan; <sup>2</sup>National Taiwan University, Taiwan

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ID: 848 / PO1: 73

**Strategy for the synthesis of size-controlled oxide-free copper nanoparticles and their reactivity**

**Hideki Tanaka**

Chuo University, Japan

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ID: 419 / PO1: 74

**Synthesis of TWC Aggregated and Porous Particles via Spray Drying Method: Catalytic Performance and Internal Structure Analysis**

**Ai Ando**

Hiroshima University, Japan

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ID: 676 / PO1: 75

**MOF induced Perovskite for Cleaner Energy Production**

**Yi-Hsuan Tsai<sup>1</sup>, Joy Thomas<sup>2</sup>, Chang-Tang Chang<sup>1</sup>**

<sup>1</sup>National Ilan University, Taiwan; <sup>2</sup>National Taiwan University, Taiwan

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ID: 115 / PO1: 76

**Process Optimization for Repeated CO<sub>2</sub> Capture Using Porous MgO adsorbents**

**Yeryeong Kang<sup>1</sup>, Sukbyung Chae<sup>2</sup>, Euntae Yang<sup>3</sup>, Changhyuk Kim<sup>1</sup>**

<sup>1</sup>Pusan National University, Korea, Republic of (South Korea); <sup>2</sup>Korea University of Technology and Education, Korea, Republic of (South Korea); <sup>3</sup>Gyeongsang National University, Korea, Republic of (South Korea)

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ID: 1123 / PO1: 77

**Electrophoretic assisted flame synthesis of hydrophilic carbon nanoparticles film**

**Raffaella Griffo<sup>1</sup>, Arianna Parisi<sup>2</sup>, Mario Minale<sup>1</sup>, Francesco Di Natale<sup>2</sup>, Claudia Carotenuto<sup>1</sup>**

<sup>1</sup>Department of Engineering, University of Campania L. Vanvitelli, Aversa (CE) 81031, Italy; <sup>2</sup>Department of Chemical, Material and Industrial Production Engineering, University of Naples Federico II, Napoli, 80125, Italy

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ID: 1162 / PO1: 78

**Template-free synthesis of porous metal nitride films from combustion aerosols**

**Adrien Baut, Michael Pereira Martins, Andreas Thomas Güntner**

ETH Zuerich, Switzerland

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ID: 933 / PO1: 79

**Effect of the Oxidation State of Copper Nanoparticles on Their Interfacial Interaction with Metallic Substrates**

**Alexander Plack, Alfred P. Weber**

Institute of Particle Technology - Clausthal University of Technology, Germany

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ID: 770 / PO1: 80

**Electrochemical Sensor for Detection of Oxytetracycline Using ZnO-Modified Carboxylate Multi-Walled Carbon Nanotubes on Glassy Carbon Electrode**

**Yu -Ting Tsai, Chang-tang Chang**

National Ilan University, Taiwan

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ID: 580 / PO1: 81

## Multifunctional and Eco-Friendly EDTA/PEI Aerogels for the Removal of Cu(II) from Aqueous Solutions

Siao Jyun Hu<sup>1</sup>, Joy Thomas<sup>2</sup>, Chang Tang Chang<sup>1</sup>

<sup>1</sup>National Ilan University, Taiwan; <sup>2</sup>National Taiwan University, Taiwan

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ID: 545 / PO1: 82

## Synthesis of TiO<sub>2</sub> nanoparticle and rGO composite material by flame spray pyrolysis for Li-Sulfur battery cathode creation.

Kirill Murashko, Muhammad Tanveer, Anna Lähde

University of Eastern Finland, Finland

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ID: 572 / PO1: 83

## Deep Spatio-Temporal Neural Network for Air Quality Reanalysis

Ammar Kheder<sup>1,2</sup>, Benjamin Foreback<sup>2,3</sup>, Lili Wang<sup>4</sup>, Zhi-Song Liu<sup>1,2</sup>, Michael Boy<sup>1,2,3</sup>

<sup>1</sup>LUT UNIVERSITY, Finland; <sup>2</sup>Atmospheric Modelling Centre Lahti, Lahti University Campus; <sup>3</sup>Univeristy of Helsinki; <sup>4</sup>Chinese Academy of Sciences

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ID: 777 / PO1: 84

## Effect of brake friction material on brake particle emissions

Christophe Bressot<sup>1</sup>, MARIE HOFF<sup>2</sup>, YANMING CHEN<sup>3</sup>, MARTIN MORGENEYER<sup>4</sup>

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ID: 544 / PO1: 85

## Real-Time Characterization of PAH Derivatives in Bitumen Fume Emissions

Maria Bou Saad<sup>1</sup>, Brice Temime-Roussel<sup>1</sup>, Vincent Gaudefroy<sup>2</sup>, Jean-Philippe Terrier<sup>2</sup>, Olivier Burban<sup>2</sup>, Audrey Pevere<sup>3</sup>, Thierry Orsière<sup>4</sup>, Henri Wortham<sup>1</sup>, Pierre Doumenq<sup>1</sup>

<sup>1</sup>Aix Marseille Univ, LCE, 13331 Marseille, France.; <sup>2</sup>MAST/MIT, Université Gustave Eiffel, Allée des Ponts et Chaussées, CS4, 44344 Bouguenais, France.; <sup>3</sup>Cerema, Univ Gustave Eiffel, UMR MCD, F-13100 Aix-en-Provence, France.; <sup>4</sup>Aix Marseille Université, Avignon Université, CNRS, IRD, IMBE, Marseille, France.

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ID: 427 / PO1: 86

## A Study on the Distribution Characteristics of Particulate Matter Emissions in Industrial Complex Areas Using Scanning LiDAR

Gahye Lee<sup>1</sup>, Seong-min Kim<sup>1</sup>, Jeong-Min Park<sup>1</sup>, kyoungho Kim<sup>2</sup>, Youndae Jung<sup>2</sup>, Ilkwon Yang<sup>2</sup>, Sungchul Choi<sup>3</sup>, Changgi Choi<sup>3</sup>, Sang Cheol Kim<sup>4</sup>, Kwanchul Kim<sup>1</sup>

<sup>1</sup>Advanced Institute of Convergence Technology(AICT), Korea, Republic of (South Korea); <sup>2</sup>Metropolitan Environment Management Office, Suwon-si, Gyeonggi-do,16444, South Korea; <sup>3</sup>Samwoo TCS Co., Ltd., Chilgok-gun, Gyeongsangbuk-do, 39910, South Korea; <sup>4</sup>Sungkyunkwan University Environmental Forensic Lab, Suwon-si, Gyeonggi-do, 16419, South Korea

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ID: 194 / PO1: 87

## Evaluation of different causes of air pollution in the Central European Region

Vladimira Volná, Blanka Krejčí, Radim Seibert, Daniel Hladky

Czech Hydrometeorological Institute, Czech Republic

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ID: 630 / PO1: 88

## Monitoring of radioactive aerosols by two-layer filters in the premises air on low levels of the Shelter Object inside the New Safe Confinement

Oleksandr Kalynovskyi

Institute for Safety Problems of Nuclear Power Plants of NAS of Ukraine, Ukraine

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ID: 636 / PO1: 89

## Effects of exhaust dilution parameters on characteristics of semi-volatile aerosol emissions from a gasoline internal combustion engine

Hugh Davies<sup>1</sup>, Soheil Zeraati Rezaei<sup>1</sup>, James Brean<sup>2</sup>, Nategheh Najafpour<sup>1</sup>, Jose M. Herreros<sup>1</sup>, Mohammed S. Alam<sup>3</sup>, Athanasios Tsolakis<sup>1</sup>, Roy M. Harrison<sup>2</sup>

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ID: 587 / PO1: 90

## Exploring the Formation and Toxicity of Secondary Particles in Gasoline Vehicle Emissions

Georgios Tsakonas<sup>1</sup>, Rodopi Stamatiou<sup>2</sup>, Kimmo Korhonen<sup>3</sup>, Ukko-Ville Mäkinen<sup>3</sup>, Petteri Marjanen<sup>3</sup>, Pauli Simonen<sup>3</sup>, Jorma Keskinen<sup>3</sup>, Karine Elihn<sup>4</sup>, Antigone Lazou<sup>2</sup>, Zissis Samaras<sup>1</sup>

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ID: 703 / PO1: 91

## High secondary aerosol formation from motorcycle exhaust

Pauli Simonen<sup>1</sup>, Atte Ojala<sup>1</sup>, Giorgos Triantafyllopoulos<sup>2</sup>, Dimos Melachrous<sup>3</sup>, Ukko-Ville Mäkinen<sup>1</sup>, Kuisma Vesisenaho<sup>1</sup>, Petteri Marjanen<sup>1</sup>, Ville Leinonen<sup>1</sup>, Thanasis Tziovas<sup>2</sup>, Dimitris Katsaounis<sup>3</sup>, Leonidas Ntziachristos<sup>3</sup>, Panu Karjalainen<sup>1</sup>

**ID: 1052 / PO1: 92**

**The positive impact of burning sustainable aviation fuel on reducing non-volatile particle emissions**

Louise Ganeau<sup>1</sup>, Ismael K. Ortega<sup>1</sup>, Alaric Vandestoc<sup>1</sup>, Antoine Berthier<sup>1</sup>, Yanis Melliti<sup>1</sup>, Mickaël Sicard<sup>1</sup>, Frederic Ollivier<sup>2</sup>, Marc Delcourt<sup>2</sup>

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**ID: 746 / PO1: 93**

**CFD simulation of non-exhaust particles dispersion in the wake flow of a passenger car**

Selma Doumaz<sup>1</sup>, Ahmed Benabed<sup>1</sup>, Amine Mehel<sup>1</sup>, Bart Janssens<sup>2</sup>

<sup>1</sup>Ecole Supérieure des Techniques Aéronautiques et Construction Automobile (ESTACA), France; <sup>2</sup>Royal Military Academy (RMA)

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**ID: 773 / PO1: 94**

**Effect of fuel composition to particles emitted from auxiliary heaters of cars**

Henri Oikarinen<sup>1</sup>, Anni Hartikainen<sup>2</sup>, Pauli Simonen<sup>3</sup>, Karolina Klemi<sup>1</sup>, Laura Ala-Hakuni<sup>3</sup>, Santtu Mikkonen<sup>1,2</sup>, Panu Karjalainen<sup>3,4</sup>

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**ID: 614 / PO1: 95**

**Experimental Investigation of Particle Loss from Sampling Tube Surface Roughness, Tube Coiling, Flow Splitters, and Tube Fittings in Aviation nvPM Sampling Systems**

Fergus Oscar Noah Lidstone-Lane<sup>1</sup>, Paul Williams<sup>1</sup>, Mark Johnson<sup>2</sup>, Amanda Lea-Langton<sup>1</sup>

<sup>1</sup>University of Manchester, United Kingdom; <sup>2</sup>Rolls-Royce, United Kingdom

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**ID: 280 / PO1: 96**

**Roadside emission factors of emerging and unregulated pollutants**

Lauri Savolainen<sup>1</sup>, Teemu Lepistö<sup>1</sup>, Heidi Hellén<sup>2</sup>, Henna Lintusaari<sup>1</sup>, Milja Jäppi<sup>1</sup>, Jarkko V. Niemi<sup>3</sup>, Markus Lampimäki<sup>4</sup>, Janne Lampilahti<sup>4</sup>, Katrianne Lehtipalo<sup>4</sup>, Tuukka Petäjä<sup>4</sup>, Hilkka Timonen<sup>2</sup>, Topi Rönkkö<sup>1</sup>

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**ID: 966 / PO1: 97**

**Real-time monitoring of transport-related air and noise pollution in European cities (Net4Cities): Monitoring plan and approach**

Martine Van Poppe<sup>1</sup>, Jan Peters<sup>1</sup>, Sean Schmitz<sup>2</sup>, Robert Wegener<sup>3</sup>, Max Adam<sup>3</sup>, Aki Pajunoja<sup>4</sup>, Saskia Drossaert van Dusseldorp<sup>5</sup>, Michael Pikridas<sup>6</sup>, Joana Soares<sup>7</sup>, Roberto Sanz Pozo<sup>8</sup>, Kris Vanherle<sup>9</sup>, Erika von Schneidmesser<sup>2</sup>

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**ID: 858 / PO1: 98**

**Exploring Particle Dynamics: Preliminary Investigations in Wear Particle Measurement for Tire and Road Surfaces**

Danilo Engelmann<sup>2</sup>, Volker Ziegler<sup>1</sup>, Martin Schmidt<sup>1</sup>, Markus Barth<sup>1</sup>

<sup>1</sup>Palas GmbH, Germany; <sup>2</sup>Bern University of Applied Sciences

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**ID: 792 / PO1: 99**

**Particulate emissions from vehicles: a detailed characterization of fine and ultrafine fractions**

Christian Ferrarese<sup>1,2</sup>, Sara Valentini<sup>2</sup>, Dora Mehn<sup>2</sup>, Jessica Ponti<sup>2</sup>, Gabriella Schirinzi<sup>2</sup>, Andrea Valsesia<sup>2</sup>, Natalia Elisabeth Fonseca González<sup>1</sup>, Dario Manara<sup>2</sup>

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**ID: 1058 / PO1: 100**

**Emissions of particulate matter and pollution control technologies for marine engines operated with green fuels**

Francesco Di Natale, Arianna Parisi

University of Naples Federico II, Italy

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**ID: 406 / PO1: 101**

**Evaluation of Emissions in a Lab-scale Turbojet Engine Using Fossil and Sustainable Aviation Fuels**

Enrique Rojas<sup>1</sup>, David Sanz<sup>1</sup>, Jesús Javier Rodríguez<sup>1</sup>, Manuel Pujadas Cordero<sup>1</sup>, Rosa María Pérez Pastor<sup>1</sup>, Susana García Alonso<sup>1</sup>, José Antonio Soriano García<sup>2</sup>, Pablo Fernández Yañez<sup>2</sup>, Reyes García Contreras<sup>2</sup>, Octavio Armas Vergel<sup>2</sup>

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**ID: 960 / PO1: 102**

**Ultrafine Particulate Emissions from the Transport Sector: First results from the Net4Cities project**

**Archita Rana<sup>1</sup>, Robert Wegener<sup>1</sup>, Max Gerrit Adam<sup>1</sup>, René Dubus<sup>1</sup>, Lukas Kesper<sup>1</sup>, Dieter Klemp<sup>1</sup>, Sean Schmitz<sup>2</sup>, Martine van Poppel<sup>3</sup>, Aki Pajunoja<sup>4</sup>, Saskia Drossaert van Dusseldorp<sup>5</sup>, Michael Pikridas<sup>6</sup>, Erika von Schneidmesser<sup>2</sup>**

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**ID: 283 / PO1: 103**

### **Fresh exhaust particle emissions from modern passenger cars**

**Milja Jäppi<sup>1</sup>, Katariina Kylämäki<sup>1</sup>, Lassi Markkula<sup>1</sup>, Wojciech Honkisz<sup>2</sup>, Laura Salo<sup>1</sup>, Henna Lintusaari<sup>1</sup>, Teemu Lepistö<sup>1</sup>, Petteri Marjanen<sup>1</sup>, Kimmo Teinilä<sup>3</sup>, Luis Barreira<sup>3</sup>, Delun Li<sup>3</sup>, Leila Simon<sup>3,7</sup>, Minna Aurela<sup>3</sup>, Sanna Saarikoski<sup>3</sup>, Sami Harni<sup>3</sup>, Anssi Järvinen<sup>4</sup>, Hannu Kuutti<sup>4</sup>, Rabbia Ashger<sup>1</sup>, Sana Farhoudian<sup>1</sup>, Siddhart Iyer<sup>1</sup>, Avinash Kumar<sup>1</sup>, Tereza Cervena<sup>5</sup>, Katerina Honkova<sup>5</sup>, Michal Vojtisek-Lom<sup>5</sup>, Martin Pechout<sup>6</sup>, Matti Rissanen<sup>1</sup>, Andrzej Szczotka<sup>2</sup>, Piotr Bielaczyc<sup>2</sup>, Jan Topinka<sup>5</sup>, Hilikka Timonen<sup>3</sup>, Päivi Aakko-Saksa<sup>4</sup>, Topi Rönkkö<sup>1</sup>**

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**ID: 961 / PO1: 104**

### **Portable FTIRs' capability to measure secondary aerosol precursors from vehicle exhaust**

**Hannu Kuutti<sup>1</sup>, Päivi Aakko-Saksa<sup>1</sup>, Michal Vojtisek-Lom<sup>2</sup>, Martin Pechout<sup>3</sup>, Wojciech Honkisz<sup>4</sup>, Piotr Bielaczyc<sup>4</sup>, Katariina Kylämäki<sup>5</sup>, Topi Rönkkö<sup>5</sup>, Sanna Saarikoski<sup>6</sup>, Hilikka Timonen<sup>6</sup>**

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**ID: 715 / PO1: 105**

### **Influence of Fuel Standards on Vehicular Emissions: Assessing the Impact of Bharat Stage Regulations in Urban Idling Conditions**

**Amir Ali, Azajul Haque, Anjanay Pandey, Vikram Singh, Mayank Kumar**  
Indian Institute of Technology Delhi, India

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**ID: 291 / PO1: 106**

### **Motor vehicle exhaust ultrafine particle number (PN) concentration monitor and calibration technology**

**Tongzhu Yu<sup>1,2</sup>, Yixin Yang<sup>1,2</sup>, Huaqiao Gui<sup>1,2</sup>, Junjie Liu<sup>3</sup>, Da-Ren Chen<sup>1,4</sup>**

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**ID: 186 / PO1: 107**

### **Regulated and unregulated pollutants emitted by an inland waterway ship – comparison of traditional fuel with two alternative fuels.**

**Boris Vansevenant<sup>1</sup>, Ashok Singh Vishnoi<sup>1</sup>, Yassine Azizi<sup>3</sup>, Emeric Borjon-Piron<sup>3</sup>, Bernard Guiot<sup>3</sup>, Fabrizio Cunzi<sup>3</sup>, Antoine Rigault<sup>3</sup>, Corinne Ferronato<sup>2</sup>, Ludovic Fine<sup>2</sup>, Patrick Tassel<sup>1</sup>, Sophie Serindat<sup>1</sup>, Yao Liu<sup>1</sup>**

<sup>1</sup>University Gustave Eiffel, France; <sup>2</sup>University Claude Bernard Lyon 1; <sup>3</sup>CRMT

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**ID: 1092 / PO1: 108**

### **Chitosan based crosslinked nanoparticles by coaxial electrospraying**

**Yaride Pérez-Pacheco<sup>1</sup>, Eszter Bodnár<sup>1</sup>, Ricard Garcia-Valls<sup>1</sup>, Joan Rosell-Llompart<sup>1,2</sup>**

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**ID: 1079 / PO1: 109**

### **Finite Taylor Cone: the impact of the electrospray**

**Javier Rivero-Rodriguez<sup>1</sup>, Antonio Hijano<sup>1</sup>, Francisco Higuera<sup>2</sup>, Ignacio Loscertales<sup>1</sup>**

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**ID: 413 / PO1: 110**

### **Spark Ablation Generation of Metal and TiO<sub>2</sub> Nanoparticles for CO<sub>2</sub> Hydrogenation**

**Benjamin Gfeller<sup>1</sup>, Mariia Becker<sup>1</sup>, Marcus Wyss<sup>2</sup>, Nicolas Bukowiecki<sup>1</sup>, Markus Kalberer<sup>1</sup>**

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**ID: 164 / PO1: 111**

### **Combined Reduction of NO<sub>x</sub> and PM Emissions from Small-scale Biomass Combustion with Electrostatic Precipitation**

**Alexandr Molčanov, Kamil Krpec**

**ID: 1026 / PO1: 112**

**CFD modeling of a perpendicularly oriented EHDA system in a pressurized lateral gas flow**

**Kelly Schneider Moreira<sup>1</sup>, Leon Schmittgens<sup>2</sup>, Ignacio González Loscertales<sup>3</sup>, Luewton Lemos F Agostinho<sup>4</sup>**

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**ID: 701 / PO1: 113**

**Droplet behavior and characteristics in high-flow rate electrospray processes**

**Joon Yub Kim<sup>1</sup>, Myong-Hwa Lee<sup>1,2</sup>**

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**ID: 1182 / PO1: 114**

**Spreading aerosol nanoparticles through mobilizing substrates for wafer-scale nanoprinting**

**Shirong Liu, JiCheng Feng**

ShanghaiTech University, China, People's Republic of

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**ID: 679 / PO1: 115**

**Sustainable Aliphatic Polyketone/Nylon6 fibrous Membrane for Emulsion Separation**

**Hsiang-Chieh Chiu<sup>1</sup>, Joy Thomas<sup>2</sup>, Chang-Tang Chang<sup>1</sup>**

<sup>1</sup>Department of Environmental Engineering, National Ilan University; <sup>2</sup>Department of Materials Science and Engineering, National Taiwan University

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**ID: 1011 / PO1: 116**

**Volatile organic compounds emission factors for boreal forest surface fires in laboratory experiments**

**Markus Jere Oskari Somero<sup>1</sup>, Angela Buchholz<sup>2</sup>, Mika Ihalainen<sup>1</sup>, Pasi Yli-Pirilä<sup>1</sup>, Anni Hartikainen<sup>1</sup>, Iida Pullinen<sup>2</sup>, Kajar Köster<sup>1</sup>, M. Hamza Zaman<sup>5</sup>, Ville Vakkari<sup>3,4</sup>, Lejish Vettikkat<sup>2</sup>, Aki Virkkula<sup>3</sup>, Annele Virtanen<sup>2</sup>, Olli Sippula<sup>1,5</sup>**

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**ID: 875 / PO1: 117**

**Light absorption dynamics of wildfire-like BrC from wood combustion**

**Constantinos Moularas<sup>1,2</sup>, Irini Tsiotra<sup>3</sup>, Nikos Mihalopoulos<sup>3,4</sup>, Philip Demokritou<sup>1</sup>, Georgios A. Kelesidis<sup>1,2</sup>**

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**ID: 1150 / PO1: 118**

**Condensable PM formation inside the masonry heater and in the emission gases**

**Marek Maasikmets, Erik Teinmaa, Keio Vainumäe, Magnar Vainumäe**

Estonian Environmental Research Centre, Estonia

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**ID: 626 / PO1: 119**

**3D-printed Filters for Particulate Emissions Reduction in Biomass Combustion**

**Oday Hakami<sup>1</sup>, Daniel Wilson<sup>2</sup>, Fergus Lidstone-Lane<sup>2</sup>, Arthur Garforth<sup>1</sup>, Amanda Lea-Langton<sup>2</sup>**

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**ID: 604 / PO1: 120**

**Electro Hydrodynamic Fabricated Ecofriendly Polymers for PM0.1-0.5 Capture**

**Ya Ying Wu<sup>1</sup>, Joy Thomas<sup>2</sup>, Chang Tang Chang<sup>1</sup>**

<sup>1</sup>National Ilan University, Taiwan; <sup>2</sup>National Taiwan University, Taiwan

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**ID: 199 / PO1: 121**

**Field testing of air filters for efficiency of removal aerosol particles in an air handling unit**

**Tomasz Jankowski**

CIOP-PIB, Poland

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**ID: 877 / PO1: 122**

**A Detailed assessment of catalytic reduction of organic emissions from a wood stove using PTR-ToF-MS and FTIR**

**Muhammad Hamza Zaman<sup>1</sup>, Onni Ovaskainen<sup>2,3</sup>, Anni Hartikainen<sup>2</sup>, Pasi Yli-Pirilä<sup>2</sup>, Tuukka Kokkola<sup>2</sup>, Niko Kinnunen<sup>1</sup>, Jarkko Tissari<sup>2</sup>, Olli Sippula<sup>1,3</sup>**

**ID: 687 / PO1: 123**

**Analysis of pressure drops and dust-holding capacities of nano-micro composite filters during dust loading**

**Min-Seon Kwon, Myong-Hwa Lee**

Kangwon National University, Korea, Republic of (South Korea)

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**ID: 197 / PO1: 124**

**Development of a High Electric Field Type Electrostatic Precipitator with High Gas Velocity for Diesel Exhaust Particles**

**Hayato Ito<sup>1</sup>, Takumi Kojima<sup>1</sup>, Koji Yasumoto<sup>1</sup>, Akinori Zukeran<sup>1</sup>, Yoshiyasu Ehara<sup>2</sup>**

<sup>1</sup>Kanagawa Institute of Technology, Japan; <sup>2</sup>Tokyo City University

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**ID: 251 / PO1: 125**

**Effect of reputation frequency on suspended particle trajectory in nanosecond pulsed discharge with DC bias**

**Mio Kitamura<sup>1</sup>, Kaho Hosaka<sup>1</sup>, Akinori Zukeran<sup>1</sup>, Yoshihiro Kawada<sup>2</sup>, Riku Yamaguchi<sup>3</sup>, Tasuku Hatakeyama<sup>3</sup>, Sho Fujikura<sup>3</sup>, Katuyuki Takahashi<sup>3</sup>, Koichi Takaki<sup>3</sup>**

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**ID: 686 / PO1: 126**

**Application of granular bed theory to predict the filtration performance of porous filters**

**Jae-Hyun Park, Myong-Hwa Lee**

Kangwon National University, Korea, Republic of (South Korea)

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**ID: 878 / PO1: 127**

**Atmospheric Particle Fluxes in the High Arctic Across Three Surface Types**

**Theresa Mathes<sup>1</sup>, Heather Guy<sup>2</sup>, John Prytherch<sup>3</sup>, Julia Kojoj<sup>4</sup>, Ian Brooks<sup>2</sup>, Sonja Murto<sup>3</sup>, Paul Zieger<sup>4</sup>, Birgit Wehner<sup>5</sup>, Michael Tjernstrom<sup>3</sup>, Andreas Held<sup>1</sup>**

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**ID: 953 / PO1: 128**

**Characterisation of Physical and Optical properties of Arctic Dust Aerosols at Villum station**

**Zihui Teng<sup>1</sup>, Lu Zhang<sup>2</sup>, Andreas Massling<sup>2</sup>, Henrik Skov<sup>2</sup>, Merete Bilde<sup>1</sup>, Bernadette Rosati<sup>1,3</sup>**

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**ID: 638 / PO1: 129**

**Investigating the Impact of heating on Semi-Volatile Organic Species in Cloud Condensation Nuclei Counter**

**Mayur Gajanan Sapkal<sup>1</sup>, Shravan Deshmukh<sup>2</sup>, Jian Xu<sup>3</sup>, Junteng Wu<sup>4</sup>, Anne Monod<sup>3</sup>, mathieu cazaunau<sup>5</sup>, Edouard Panguis<sup>5</sup>, Silvia Henning<sup>2</sup>, Brice temime-rousseau<sup>3</sup>, Judith Kleinheins<sup>1</sup>, Claudia Marcolli<sup>1</sup>, Jim Grisillon<sup>3</sup>, Bénédicte Bénédicte Picquet-Varrault<sup>5</sup>, Luo Beijing<sup>1</sup>, Zamin Kanji<sup>1</sup>**

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**ID: 512 / PO1: 130**

**Chemical characterization of fogs in the hyper arid zone of Namibia**

**Agathe Gérardin<sup>1</sup>, Jim Grisillon<sup>1</sup>, Pierre Amato<sup>2</sup>, Servanne Chevaillier<sup>3</sup>, Karine Desboeufs<sup>3</sup>, Amandine Durand<sup>1</sup>, Gaël Durrieu<sup>4</sup>, Khanneh Wadinga Fomba<sup>5</sup>, Juan Miguel Gonzalez Sanchez<sup>1</sup>, Brigitte Language<sup>6</sup>, Frederic Mathonat<sup>2</sup>, Gaël Noyalet<sup>3</sup>, Benjamin Oursel<sup>4</sup>, Stuart Piketh<sup>6</sup>, Sylvain Triquet<sup>3</sup>, Daniel Tetteh Quaye<sup>5</sup>, Paola Formenti<sup>1</sup>, Fabien Robert-Peillard<sup>3</sup>, Anne Monod<sup>1</sup>**

<sup>1</sup>Aix Marseille Université, CNRS, LCE, Marseille, France; <sup>2</sup>Université Clermont Auvergne, CNRS, Clermont-Ferrand, France; <sup>3</sup>Université Paris-Est Créteil et Université Paris Diderot, CNRS, LISA, Créteil, France; <sup>4</sup>Aix Marseille Université, MIO, La Garde, France; <sup>5</sup>Leibniz Institute for Tropospheric Research (TROPOS), Leipzig, Germany; <sup>6</sup>North-West University, Unit for Environmental Science and Management, Potchefstroom, South Africa

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**ID: 129 / PO1: 131**

**Evaluation of different sampling methodologies for the characterization of ice nucleating particle concentration using GRAINS, the new INP spectrometer at the AGORA Observatory**

**Elena Bazo<sup>1,2</sup>, Gloria Titos<sup>1,2</sup>, Olga Ruiz-Galera<sup>1</sup>, Diego Patrón<sup>1</sup>, Sonia Castillo<sup>1</sup>, Alejandro Ontiveros<sup>1</sup>, Juan Andrés Casquero-Vera<sup>1,2</sup>, Francisco José Olmo<sup>1,2</sup>, Lucas Alados-Arboledas<sup>1,2</sup>, Alberto Cazorla<sup>1,2</sup>**

<sup>1</sup>Andalusian Institute for Earth System Research (IISTA-CEAMA), Granada 18006, Spain; <sup>2</sup>Department of Applied Physics, University of Granada, Granada 18071, Spain

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**ID: 292 / PO1: 132**

### **The Influence of Precipitation on Black Carbon Aerosols**

**Kajal Julaha<sup>1,2</sup>, Joseph Durat<sup>1</sup>, Vladimir Zdimal<sup>1</sup>, Nadezda Zikova<sup>1</sup>**

<sup>1</sup>Research Group of Aerosol Physics and Chemistry, Institute of Chemical Process Fundamentals CAS, Prague, CZ-16500, Czech Republic;

<sup>2</sup>Department of Atmospheric Physics, Faculty of Mathematics and Physics, Charles University, Prague, 18000, Czech Republic

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**ID: 433 / PO1: 133**

### **INP parameterization comparison: boundary layer vs free troposphere**

**Joseph, Jean-Marcel Durat<sup>1,2</sup>, Jakub Ondracek<sup>1</sup>, Vladimir Zdimal<sup>1</sup>, Naděžda Ziková<sup>1</sup>**

<sup>1</sup>Institute of Chemical Process Fundamentals, Czech Academy of Sciences, Prague, 165 02, Czech Republic; <sup>2</sup>Institute of Environmental Sciences, Charles University, Prague, 128 00, Czech Republic

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**ID: 1086 / PO1: 134**

### **Atmospheric Aerosol Composition and Formation in an Alaskan Boreal Forest**

**Steven Job Thomas<sup>1</sup>, James Campbell<sup>2</sup>, Wang Congrong<sup>2</sup>, Federico Bianchi<sup>1</sup>, Jingqiu Mao<sup>2</sup>**

<sup>1</sup>Institute for Atmospheric and Earth System Research / Physics, Faculty of Science, University of Helsinki, Helsinki, 00560, Finland.;

<sup>2</sup>Geophysical Institute and Department of Chemistry and Biochemistry, University of Alaska Fairbanks, Fairbanks, AK 99775, USA

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**ID: 590 / PO1: 135**

### **Atmospheric ions indicating continuous new particle formation in the Mediterranean coastal environment**

**Spyridon Emmanouil Markoulakis<sup>1</sup>, Nikos Kalivitis<sup>1</sup>, Panagiotis Kalkavouras<sup>2,3</sup>, Veli-Matti Kerminen<sup>4</sup>, Markku Kulmala<sup>4</sup>, Maria Kanakidou<sup>1,5,6</sup>**

<sup>1</sup>University of Crete, Greece; <sup>2</sup>National Observatory of Athens, Greece; <sup>3</sup>University of the Aegean, Greece; <sup>4</sup>University of Helsinki, Finland;

<sup>5</sup>University of Patras, Greece; <sup>6</sup>University of Bremen, German

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**ID: 298 / PO1: 136**

### **Composition of air ions during new particle formation events in Cyprus**

**Neha Deot, Mihai Ciobanu, Vijay Kanawade, Katrianne Lehtipalo, Tuija Jokinen**

University of Helsinki and The Cyprus Institute, Finland

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**ID: 272 / PO1: 137**

### **Contribution of new particle formation events to cloud condensation nuclei concentrations at U.S. observatories**

**Ines Zabala<sup>1,2</sup>, Andrea Casans<sup>1,2</sup>, Juan Andrés Casquero-Vera<sup>1,2</sup>, Gerardo Carrillo-Cardenas<sup>3</sup>, Suqian Chu<sup>4</sup>, Jingbo Mao<sup>4</sup>, Fangqun Yu<sup>4</sup>, Elisabeth Andrews<sup>5,6</sup>, Anna Gannet Hallar<sup>3</sup>, Gloria Titos<sup>1,2</sup>**

<sup>1</sup>Andalusian Institute for Earth System Research IISTA, University of Granada, Granada, Spain; <sup>2</sup>Department of Applied Physics, Faculty of Sciences, University of Granada, Granada, Spain; <sup>3</sup>Department of Atmospheric Sciences, University of Utah, Salt Lake City, UT, United States; <sup>4</sup>Atmospheric Sciences Research Center, State University of New York, Albany, NY, United States; <sup>5</sup>CIRES, University of Colorado, Boulder, CO, United States; <sup>6</sup>Global Monitoring Laboratory, NOAA, Boulder, CO, United States

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**ID: 597 / PO1: 138**

### **Methanesulfonic acid chemistry and new particle formation : a global model study**

**Samuel Ruhl<sup>1</sup>, Matthias Kohl<sup>1</sup>, Rolf Sander<sup>1</sup>, Christos Xenofontos<sup>2</sup>, Rima Baalbaki<sup>2</sup>, Theodoros Christoudias<sup>2</sup>, Jos Lelieveld<sup>1,2</sup>, Andrea Pozzer<sup>1,2</sup>**

<sup>1</sup>Atmospheric Chemistry Department, Max Planck Institute for Chemistry, Mainz, 55128, Germany; <sup>2</sup>Climate and Atmosphere Research Center, The Cyprus Institute, Nicosia, 2121, Cyprus

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**ID: 320 / PO1: 139**

### **Uncertainty Quantification of autoCONSTRAINTS derived Reaction Coefficients with MCMC**

**Valery Ntui Ashu<sup>1,2,3</sup>, Heikki Haario<sup>1,2</sup>, Lukas Pichelstorfer<sup>2,4</sup>, Michael Boy<sup>1,2,3</sup>**

<sup>1</sup>LUT University, Finland; <sup>2</sup>University of Helsinki, Finland; <sup>3</sup>Atmospheric Modelling Center, Lahti, Finland; <sup>4</sup>Pi-numerics

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**ID: 993 / PO1: 140**

### **Internally Mixed Aerosols in Urban Area of Katowice Conurbation (Poland)**

**Tetiana G. Kalinichenko<sup>1,2</sup>, Mariola B. Jabłońska<sup>1,2</sup>**

<sup>1</sup>University of Silesia, Poland; <sup>2</sup>University Laboratories of Atmospheric Survey

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**ID: 885 / PO1: 141**

### **Secondary particle formation in the aqueous phase – Conversion of catechol in the presence of iron**

**Sabine Lühtrath, Rico Wutke, Andreas Held**

Technische Universität Berlin, Germany

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**ID: 664 / PO1: 142**

### **Sensitivity Analysis of a New Inorganic Multiphase Chemical Model**

**Zeqi Cui**

Institute for Atmospheric and Earth System Research (INAR) of University of Helsinki, Finland

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**ID: 173 / PO1: 143**

### **Towards automated inclusion of representative autoxidation chemistry in explicit models**

**Lauri Franzon<sup>1</sup>, Richard Valorso<sup>2</sup>, Bernard Aumont<sup>2</sup>, Marie Camredon<sup>2</sup>, Julia Lee-Taylor<sup>3</sup>, John Orlando<sup>3</sup>, Anni Savolainen<sup>4</sup>, Siddharth Iyer<sup>4</sup>, Matti Rissanen<sup>1,4</sup>, Theo Kurtén<sup>1</sup>**

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**ID: 997 / PO1: 144**

### **Implementation of a particle resuspension model in a Large Eddy Simulation code**

**Victor Bourgin, Mohamed Sellam, Amir Feiz**

University of Evry Paris Saclay, France

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**ID: 233 / PO1: 145**

### **Influence of long-range transport over the sea on submicron aerosol chemical composition**

**Agne Minderyte<sup>1</sup>, Julija Pauraite<sup>1</sup>, Erik Ahlberg<sup>2</sup>, Adam Kristensson<sup>2</sup>, Steigvilė Byčėnienė<sup>1</sup>, Axel Eriksson<sup>2</sup>**

<sup>1</sup>Center for Physical Sciences and Technology, Lithuania; <sup>2</sup>Lund University

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**ID: 850 / PO1: 146**

### **Towards an improved historical emission dataset for modelling air quality in urban areas during the industrialization**

**Clara Seidel<sup>1</sup>, Roland Schrödner<sup>1</sup>, Ina Tegen<sup>1</sup>, Anna Hanitzsch<sup>2</sup>**

<sup>1</sup>Leibniz Institute for Tropospheric Research, Leipzig, Germany; <sup>2</sup>Faculty of Economics and Management Science, Leipzig University, Leipzig, Germany

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**ID: 995 / PO1: 147**

### **Optimizing Black Carbon emissions on a global scale using TM5-MP and CTDAS**

**Angelos Gkouvousis<sup>1</sup>, Nikos Gialesakis<sup>1,2</sup>, Alexios Drosos<sup>1</sup>, Ioannis Maris<sup>1</sup>, Maria Kanakidou<sup>1,2,3</sup>**

<sup>1</sup>Department of Chemistry, University of Crete, Greece; <sup>2</sup>Institute for Environmental Physics, University of Bremen, Germany; <sup>3</sup>Institute for Chemical Engineering Sciences, Foundation for Research and Technology Hellas, Greece

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**ID: 852 / PO1: 148**

### **Simulating the Effect of Bark Beetle Infestation on Secondary Organic Aerosol (SOA) and Ozone**

**Jana Wackermann, Marie Luise Luttkus, Roland Schrödner, Ralf Wolke**

Leibniz Institute for Tropospheric Research, Germany

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**ID: 397 / PO1: 149**

### **An improved Europe-wide spatiotemporal machine learning modelling for PM<sub>2.5</sub> using European open databases**

**Tetiana Vovk, Maciej Kryza**

University of Wrocław, Poland

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**ID: 460 / PO1: 150**

### **Development and Evaluation of Coupled Climate Simulations Using Machine Learning Enhanced Aerosol Model**

**Hermanni Halonen<sup>1</sup>, Eemeli Holopainen<sup>2</sup>, Tommi Bergman<sup>3</sup>, Anton Laakso<sup>3</sup>, Tero Mielonen<sup>3</sup>, Harri Kokkola<sup>1,3</sup>**

<sup>1</sup>University of Eastern Finland, Finland; <sup>2</sup>Foundation For Research and Technology Hellas, Institute of Chemical Engineering Sciences, Greece; <sup>3</sup>Finnish Meteorological Institute, Finland

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**ID: 376 / PO1: 151**

### **Numerical Simulation Analysis on SO<sub>2</sub> and Sulfate Aerosol Source Apportionment in the Tibetan Plateau**

**YuXuan Lu, Guohui Li, JiaRui Wu, Xia Li**

institute of earth environment, chinenes academy of sciences, China, People's Republic of

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**ID: 480 / PO1: 152**

### **Spatial and temporal variability of ultrafine particle number concentrations and their link to air quality close to Munich airport in 2023**

**Shengyi Hou, Markus Friedrich, Anke Nölscher**

University of Bayreuth, Germany

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**ID: 1199 / PO1: 153**

### **Assessment of Aerosol Optical Properties and Dipole Nature of Aerosol Induced Radiative Forcing for Shortwave and Longwave over Northwest India**

**Prity S. Pippal<sup>1</sup>, Rajesh Kumar<sup>2</sup>**

<sup>1</sup>Central University of Rajasthan, India; <sup>2</sup>Central University of Rajasthan, India

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**ID: 588 / PO1: 154**

### **Impacts of changes in land use and land cover between 2001 and 2018 in winter haze pollution in North China Plain and surrounding areas-A case study**

**Jiaoyang Yu**

Institute of Earth Environment, Chinese Academy of Sciences, China, People's Republic of

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**ID: 140 / PO1: 155**

## Composition, sources and formation process of atmospheric aerosol in marine atmosphere

Hao Li<sup>1,2</sup>, Kan Huang<sup>1</sup>, Congrui Deng<sup>1</sup>, Harald Saathoff<sup>2</sup>, Xuefeng Shi<sup>2</sup>

<sup>1</sup>Fudan University, China, People's Republic of; <sup>2</sup>Karlsruhe Institute of Technology, Germany

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ID: 262 / PO1: 156

## A mass-spectrometric study of the formation and aging of organic aerosol from vanillin oxidation

Julia David<sup>1</sup>, Anna Breuninger<sup>1</sup>, Franziska Köllner<sup>2,3</sup>, Oliver Eppers<sup>2</sup>, Oliver Appel<sup>2,3</sup>, Jonas Wilsch<sup>2</sup>, Fatih Ekinici<sup>2,3</sup>, David Wasserzier<sup>4</sup>, Stefanie Hildmann<sup>4</sup>, Luca D'Angelo<sup>1</sup>, Mario Simon<sup>1</sup>, Jialiang Ma<sup>1</sup>, Thorsten Hoffmann<sup>4</sup>, Johannes Schneider<sup>2</sup>, Alexander Vogel<sup>1</sup>

<sup>1</sup>Institute for Atmospheric and Environmental Sciences, Goethe University Frankfurt, Germany; <sup>2</sup>Particle Chemistry Department, Max Planck Institute for Chemistry, Mainz, Germany; <sup>3</sup>Institute for Atmospheric Physics, Johannes Gutenberg University, Mainz, Germany; <sup>4</sup>Department of Chemistry, Johannes Gutenberg University, Mainz, Germany

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ID: 179 / PO1: 157

## First study of the composition of cloud water collected at Monte Cimone observatory during the MC3 campaign in October 2024.

Pauline Nibert<sup>1</sup>, Yi Wu<sup>1,2</sup>, Marco Zanatta<sup>3</sup>, Angela Marinoni<sup>3</sup>, Muriel Joly<sup>2</sup>, Pierre Amato<sup>2</sup>, Paolo Cristofanelli<sup>3</sup>, Francescopiero Calzolari<sup>3</sup>, Marcello Brigante<sup>2</sup>, Laurent Deguillaume<sup>1,4</sup>, Angelica Bianco<sup>1,4</sup>

<sup>1</sup>Laboratoire de Météorologie Physique LaMP, CNRS, Université Clermont Auvergne, Aubière, 63178, France; <sup>2</sup>Institut de Chimie de Clermont-Ferrand, Université Clermont Auvergne, CNRS, Clermont-Ferrand, 63000, France; <sup>3</sup>Institute of Atmospheric Sciences and Climate, National Research Council of Italy, Bologna, 40129, Italy; <sup>4</sup>Observatoire de Physique du Globe de Clermont-Ferrand, UMS 833, CNRS, Université Clermont Auvergne, Aubière, 63178, France

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ID: 1147 / PO1: 158

## Characterization of PM<sub>2.5</sub>-Associated Dicarboxylic Acids and Sugars: Insights into Biomass Burning and Air Quality

Muskan Agarwal, Simran Bamola, Anita Lakhani

Dayalbagh Educational Institute, India

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ID: 1144 / PO1: 159

## Characteristics and levels of carbonaceous aerosols from real-time measurements during Diwali festivity

Vidit Suryakant Parkar, Abhishek Chakraborty

Indian Institute of Technology Bombay, India

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ID: 868 / PO1: 160

## Emission factors of organic aerosols from a prescribed burning of European boreal forest

Snehitha Manaswini Kommula<sup>1</sup>, Liqing Hao<sup>1</sup>, Angela Buchholz<sup>1</sup>, Tuukka Kokkola<sup>2</sup>, Iida Pullinen<sup>1</sup>, Mika Ihalainen<sup>2</sup>, Saara Peltokorpi<sup>1</sup>, Arttu Ylisirniö<sup>1</sup>, Ville Vakkari<sup>3</sup>, Olli Sippula<sup>2</sup>, Annele Virtanen<sup>2</sup>

<sup>1</sup>Department of Technical Physics, University Of Eastern Finland, Finland; <sup>2</sup>Department of Environmental and Biological sciences, University of Eastern Finland, Finland; <sup>3</sup>Finnish Meteorological Institute, Helsinki, Finland

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ID: 650 / PO1: 161

## Influence of the anthropic settlements on European Arctic climate in terms of Light-Absorbing Aerosol concentrations and Heating Rate

Niccolò Losi<sup>1</sup>, Ferdinando Pasqualini<sup>2</sup>, Alessandro Bracci<sup>2</sup>, Fabio Giardi<sup>3</sup>, Cosimo Fratliccioli<sup>3</sup>, Marcus Acton-Bond<sup>4</sup>, Piotr Markuszewski<sup>5</sup>, Martin Rigler<sup>6</sup>, Asta Gregoric<sup>6</sup>, Vera Bernardoni<sup>4</sup>, Luca Ferrero<sup>1</sup>, Luca Di Liberto<sup>2</sup>, Angelo Lupi<sup>7</sup>, Giulia Calzolari<sup>3</sup>

<sup>1</sup>GEMMA and POLARIS Centre, Università degli Studi di Milano Bicocca, Milano, 20126, Italy; <sup>2</sup>Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Roma, 00133, Italy; <sup>3</sup>Istituto Nazionale di Fisica Nucleare (INFN), Firenze, 50019, Italy; <sup>4</sup>Department of Physics, Università degli Studi di Milano and INFN, Milan, 20133, Italy; <sup>5</sup>Institute of Oceanology Polish Academy of Sciences (IOPAN), Sopot, 81-712, Poland; <sup>6</sup>Aerosol d.o.o., Ljubljana, 1000, Slovenia; <sup>7</sup>Institute of Polar Sciences (ISP), National Research Council (CNR), Bologna, 40129, Italy

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ID: 796 / PO1: 162

## Tethered Balloon Observations of Vertical Aerosol Distributions at Neumayer III, Coastal Antarctica

Yolanda Temel<sup>1</sup>, Michael Lonardi<sup>1</sup>, Zsofia Juranyi<sup>2</sup>, Julia Schmale<sup>1</sup>

<sup>1</sup>Extreme Environments Research Laboratory, École Polytechnique Fédérale de Lausanne, Sion, Switzerland; <sup>2</sup>Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremerhaven, Germany

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ID: 547 / PO1: 163

## Airborne measurements of the spatial distribution and variability of ultrafine aerosol particles in Svalbard during melting season 2024

Malte Schuchard<sup>1</sup>, Barbara Harm-Altstädter<sup>1</sup>, Konrad Bärfuss<sup>1</sup>, Sven Bollmann<sup>1</sup>, Lutz Bretschneider<sup>1</sup>, Matthew Boyer<sup>2</sup>, Dominic Heslin-Rees<sup>3</sup>, Mona Kellermann<sup>4</sup>, Ralf Käthner<sup>4</sup>, Radovan Krejci<sup>3</sup>, Christian Pilz<sup>4</sup>, Christoph Ritter<sup>5</sup>, Andreas Schlerf<sup>1</sup>, Birgit Wehner<sup>4</sup>, Astrid Lampert<sup>1</sup>

<sup>1</sup>Institute of Flight Guidance, Technische Universität Braunschweig, Braunschweig, 38108, Germany; <sup>2</sup>Institute for Atmospheric and Earth System Research, University of Helsinki, Helsinki, 00560, Finland; <sup>3</sup>Department of Environmental Science, Stockholm University, Stockholm, 11418, Sweden; <sup>4</sup>Leibniz Institute of Tropospheric Research, Leipzig, 04318, Germany; <sup>5</sup>Physics of the Atmosphere, Alfred Wegener Institute, Potsdam, 14473, Germany

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ID: 183 / PO1: 164

## Condensation-freezing Ice Nucleating Particles at Ny-Ålesund: seasonality and sources investigated by the Dynamic Filter Processing Chamber

**Matteo Rinaldi<sup>1</sup>, Alessia Nicosia<sup>1</sup>, Marco Paglione<sup>1</sup>, Karam Mansour<sup>1</sup>, Stefano Decesari<sup>1</sup>, Mauro Mazzola<sup>2</sup>, Gianni Santachiaia<sup>1</sup>, Franco Belosi<sup>1</sup>**

<sup>1</sup>Institute of Atmospheric Sciences and Climate, National Research Council of Italy, Bologna, 40129, Italy; <sup>2</sup>Institute of Polar Sciences, National Research Council of Italy, Bologna, 40129, Italy

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**ID: 275 / PO1: 165**

## Dust sources in Iceland: Insights from the High-Latitude Dust Experiment in 2021/2022

**Kerstin Schepanski<sup>1</sup>, Konrad Kandler<sup>2</sup>, Mara Montag<sup>2</sup>, Kilian Schneiders<sup>2</sup>, Pascal Kunze<sup>3</sup>, Agnesh Panta<sup>2</sup>, Adolfo González-Romero<sup>4</sup>, Cristina González-Flórez<sup>4,5</sup>, Martina Klose<sup>6</sup>, Xavier Querol<sup>7</sup>, Andres Alastuey<sup>7</sup>, Jesus Yus-Diez<sup>8</sup>, Sylvain Dupont<sup>9</sup>, Pavla Dagsson-Waldhauserová<sup>10,11</sup>, Carlos Pérez García-Pando<sup>4,12</sup>**

<sup>1</sup>Institute of Meteorology, Freie Universität Berlin, Berlin, Germany; <sup>2</sup>Institute of Applied Geosciences, Technical University of Darmstadt, Darmstadt, Germany; <sup>3</sup>Leibniz Institute for Tropospheric Research (TROPOS), Leipzig, Germany; <sup>4</sup>Barcelona Supercomputing Centre (BSC), Barcelona, Spain; <sup>5</sup>Danish Meteorological Institute (DMI), Copenhagen, Denmark; <sup>6</sup>Institute of Meteorology and Climate Research, Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany; <sup>7</sup>Institute of Environmental Assessment and Water Research – Consejo Superior de Investigaciones Científicas (IDAEA-CSIC), Barcelona, Spain; <sup>8</sup>Center for Atmospheric Research, University of Nova Gorica, Slovenia; <sup>9</sup>INRAE, Bordeaux Science Agro, ISPA, Villenave d'Ornon, France; <sup>10</sup>Faculty of Environmental and Forest Sciences, Agricultural University of Iceland, Iceland; <sup>11</sup>Faculty of Environmental Sciences, Czech University of Life Sciences, Czech Republic; <sup>12</sup>ICREA, Catalan Institution for Research and Advanced Studies, Barcelona, Spain

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**ID: 696 / PO1: 166**

## High Gaseous Methanesulfonic Acid in Antarctic Air: Evidence of Evaporation from Particle Surfaces During Katabatic Outflows

**Branka Miljevic<sup>1</sup>, Marc Mallet<sup>2</sup>, Joel Alroe<sup>1</sup>, Chiemiwo Godday Osuagwu<sup>1</sup>, Zoran Ristovski<sup>1</sup>, Abithaswathi Saraswathy<sup>1</sup>, Ruhi Humphries<sup>3</sup>, Melita Keywood<sup>3</sup>, Sally Taylor<sup>3</sup>**

<sup>1</sup>Queensland University of Technology, Australia; <sup>2</sup>University of Tasmania, Australia; <sup>3</sup>Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australia

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**ID: 1008 / PO1: 167**

## High spatial resolution measurements of the aerosol climate-relevant parameters from mid-latitudes to the Arctic, up to 90°N (GAIA)

**Fabio Giardi<sup>1</sup>, Cosimo Fratticioli<sup>1,2</sup>, Vera Bernardoni<sup>3</sup>, Marcus Acton-Bond<sup>3</sup>, Marco Potenza<sup>3</sup>, Luca Ferrero<sup>4</sup>, Niccolò Losi<sup>4</sup>, Luca Di Liberto<sup>5</sup>, Ferdinando Pasqualini<sup>5</sup>, Alessanfro Bracci<sup>5</sup>, Spartaco Ciampichetti<sup>5</sup>, Maurizio Busetto<sup>5</sup>, Angelo Lupi<sup>6</sup>, Piotr Markuszewski<sup>7</sup>, Janna E. Rückert<sup>8</sup>, Ingo Schewe<sup>9</sup>, Giulia Calzolai<sup>1</sup>**

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**ID: 754 / PO1: 168**

## Source areas and effect on snow albedo of mineral aerosol deposition on snow in North Western Greenland

**Silvia Becagli<sup>1</sup>, Filippo Cali Quaglia<sup>2</sup>, Virginia Ciardini<sup>3</sup>, Annalisa Di Bernardino<sup>4</sup>, Tatiana Di Iorio<sup>3</sup>, Alcide di Sarra<sup>3</sup>, Jose-Louis Gomez Amo<sup>5</sup>, Konrad Kandler<sup>6</sup>, Daniela Meloni<sup>3</sup>, Giovanni Muscarì<sup>2</sup>, Mirko Severi<sup>1</sup>, Monica Tosco<sup>2</sup>, Rita Traversi<sup>1</sup>**

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**ID: 865 / PO1: 169**

## Zooplankton grazing increases atmospheric primary aerosol production in the high Arctic

**Manuel Dallosto<sup>1</sup>, Katrin Schmidt<sup>2</sup>, Robert Campbell<sup>3</sup>, Daiki Nomura<sup>4</sup>, Jongkwan Park<sup>5</sup>, Young Jun Yoon<sup>6</sup>, Jiyeon Park<sup>6</sup>**

<sup>1</sup>CSIC, Spain; <sup>2</sup>University of Plymouth, Plymouth, UK; <sup>3</sup>University of Rhode Island, Narragansett, Rhode Island, USA; <sup>4</sup>Hokkaido University, Hakodate, Japan; <sup>5</sup>Department of Environment & Energy Engineering, School of Smart & Green Engineering, Changwon National University, Republic of Korea; <sup>6</sup>Korean Polar Research Institute, Republic of Korea

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**ID: 888 / PO1: 170**

## Characterizing Particulate Matter Concentrations in Southern Iceland

**Agnes Panda<sup>1</sup>, Pavla Dagsson-Waldhauserová<sup>2</sup>, Frederik Weis<sup>1</sup>, Maximilian Weiss<sup>1</sup>, Henrik Hof<sup>1</sup>, Volker Ziegler<sup>1</sup>**

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**ID: 841 / PO1: 171**

## Pristine Antarctic Cloud Condensation (CCN) and Ice Nucleating Particle (INP) Concentrations and Properties at Neumayer Station III

**Silvia E. Henning<sup>1</sup>, Oliver Eckermann<sup>1</sup>, Zsafia Juranyi<sup>2</sup>, Rolf Weller<sup>2</sup>, Heike Wex<sup>1</sup>, Frank Stratmann<sup>1</sup>**

<sup>1</sup>Leibniz-Institute for Tropospheric Research, TROPOS, Leipzig, Germany; <sup>2</sup>Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung, Bremerhaven, Germany

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ID: 415 / PO1: 172

### **A molecular journey from the Baltic Sea to Svalbard: HRMS on organic aerosols collected on board the Oceania vessel**

**Luca D'Angelo**<sup>1,2</sup>, **Niccolò Losi**<sup>3</sup>, **A.E Spazzini**<sup>3</sup>, **Vera Bernardoni**<sup>4</sup>, **Marcus Acton-Bond**<sup>4</sup>, **C Fratticioli**<sup>5,6</sup>, **Giulia Calzolai**<sup>6</sup>, **Fabio Giardi**<sup>6</sup>, **P Markuszewski**<sup>7</sup>, **Luca Di Liberto**<sup>8</sup>, **Ferdinando Pasqualini**<sup>8</sup>, **Alexander Lucas Vogel**<sup>1</sup>, **Luca Ferrero**<sup>3</sup>

<sup>1</sup>Institute for Atmospheric and Environmental Sciences, Goethe University Frankfurt, Frankfurt am Main, Germany; <sup>2</sup>Environmental Protection Agency of Lombardy Region (ARPA Lombardia), Milan, Italy; <sup>3</sup>POLARIS research centres, University of Milano-Bicocca, Milano, Italy; <sup>4</sup>Department of Physics, Università degli Studi di Milano and INFN-Milano, Milan, Italy; <sup>5</sup>Department of Physics and Astronomy, University of Florence, Sesto Fiorentino (FI), Italy; <sup>6</sup>National Institute for Nuclear Physics (INFN), Florence div., Sesto Fiorentino (FI), Italy; <sup>7</sup>IOPAN, Institute of Oceanology Polish Academy of Sciences, Poland; <sup>8</sup>National Research Council - Institute of Atmospheric Sciences and Climate (CNR-ISAC), Italy

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ID: 980 / PO1: 173

### **Black carbon in the Arctic (Ny-Ålesund): An Assessment Comparing AE33 and LIDAR Data**

**Sofia Cerri**<sup>1,2</sup>, **Christoph Ritter**<sup>5</sup>, **Marion Maturilli**<sup>5</sup>, **Niccolò Losi**<sup>2</sup>, **Stefania Gilardoni**<sup>3</sup>, **Mauro Mazzola**<sup>4</sup>, **Andrea Doldi**<sup>2</sup>, **Ezio Bolzacchini**<sup>2</sup>, **Luca Ferrero**<sup>2</sup>

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ID: 844 / PO1: 174

### **Chemical Composition of Size-Segregated Aerosols During Second Turkish Arctic Scientific Expedition (TASE-II)**

**Emre Dikmen**<sup>1</sup>, **Eda Sağırılı**<sup>2</sup>, **Aşkın Birgül**<sup>3</sup>, **Perihan Binnur Kurt Karakuş**<sup>3</sup>, **Fatma Öztürk**<sup>2</sup>

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ID: 821 / PO1: 175

### **Continental river runoff over the Arctic Ocean enhances atmospheric aerosol formation**

**James Brean**<sup>1</sup>, **Cedric Fichot**<sup>2</sup>, **David Beddows**<sup>1</sup>, **Douglas Worsnop**<sup>3,4</sup>, **Zongbo Shi**<sup>1</sup>, **Roy Harrison**<sup>1</sup>, **Eija Asmi**<sup>5</sup>, **Manuel Dallosto**<sup>6</sup>

<sup>1</sup>University of Birmingham, UK; <sup>2</sup>Boston University, USA; <sup>3</sup>Aerodyne Research Inc., Billerica, Massachusetts 01821, USA; <sup>4</sup>University of Helsinki, Helsinki, 00014, Finland; <sup>5</sup>FMI, Finland; <sup>6</sup>ICM CSIC, Spain

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ID: 990 / PO1: 176

### **GAInfrA: A Versatile Mobile Laboratory for Aerosol, Clouds and Radiation Studies in Extreme Environments**

**Ferdinando Pasqualini**<sup>1</sup>, **Alessandro Bracci**<sup>1</sup>, **Spartaco Ciampichetti**<sup>1</sup>, **Maurizio Busetto**<sup>1</sup>, **Marcus Acton-Bond**<sup>2</sup>, **Vera Bernardoni**<sup>2</sup>, **Luca Ferrero**<sup>3</sup>, **Niccolò Losi**<sup>3</sup>, **Angelo Lupi**<sup>4</sup>, **Janna.E Rückert**<sup>5</sup>, **Ingo Schewe**<sup>6</sup>, **Cosimo Fratticioli**<sup>7,8</sup>, **Fabio Giardi**<sup>8</sup>, **Giulia Calzolai**<sup>8</sup>, **Luca Di Liberto**<sup>1</sup>

<sup>1</sup>Institute of Atmospheric Sciences and Climate (ISAC), National Research Council (CNR), Italy; <sup>2</sup>Department of Physics – Università degli Studi di Milano and INFN, Milan, Italy; <sup>3</sup>GEMMA Center, Department of Earth and Environmental Sciences, University of Milano-Bicocca, Italy; <sup>4</sup>Institute of Polar Sciences, National Research Council (CNR), Bologna, 40129, Italy; <sup>5</sup>University of Bremen, Institute of Environmental Physics, Bremen, Germany; <sup>6</sup>Alfred Wegener Institut (AWI), 27568, Bremerhaven, Germany; <sup>7</sup>Dept. of Physics and Astronomy, University of Florence, Florence, Italy; <sup>8</sup>INFN (Istituto Nazionale di Fisica Nucleare), Florence, Italy

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ID: 996 / PO1: 177

### **Long-term Trends of Key Chemical Species in the High Arctic and Possible Drivers**

**Lu Zhang**<sup>1,2</sup>, **Henrik Skov**<sup>1,2</sup>, **Massling Andi**<sup>1,2</sup>, **Haochi Che**<sup>3</sup>, **Frederik Bælum Hildebrand**<sup>1,2</sup>, **Varun Kumar**<sup>1,2</sup>, **Jacob Nis Klønb Nøjgaard**<sup>4,5</sup>

<sup>1</sup>Department of Environmental Science, Aarhus University, 4000 Roskilde, Denmark; <sup>2</sup>iCLIMATE Aarhus University Interdisciplinary Centre for Climate Change, Aarhus University, 4000 Roskilde, Denmark; <sup>3</sup>Department of Geosciences, University of Oslo, 0371 Oslo, Norway; <sup>4</sup>National Research Centre for the Working Environment, Chemistry, Copenhagen, Denmark; <sup>5</sup>University of Copenhagen, Department of Chemistry, Copenhagen, Denmark

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ID: 926 / PO1: 178

### **Preliminary Results from the CleanCloud Campaign in Greenland – Villum Research Station**

**Romanos Foskinis**<sup>1,2,3</sup>, **Marilena Gidarakou**<sup>3</sup>, **Anne-Claire Marie Billault-Roux**<sup>2</sup>, **Varun Kumar**<sup>4</sup>, **Lise Lotte Sørensen**<sup>4</sup>, **Bjarne Jensen**<sup>4</sup>, **Christel Christoffersen**<sup>4</sup>, **Silvia Henning**<sup>5</sup>, **Sven-Erik Gryning**<sup>6</sup>, **Andreas Massling**<sup>4</sup>, **Henrik Skov**<sup>4</sup>, **Ulas Im**<sup>4</sup>, **Alexandros Papayannis**<sup>3</sup>, **Alexis Berne**<sup>2</sup>, **Athanasios Nenes**<sup>1</sup>

<sup>1</sup>Laboratory of Atmospheric Processes and Their Impacts, School of Architecture, Civil and Environmental Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland.; <sup>2</sup>Environmental Remote Sensing Laboratory, School of Architecture, Civil and Environmental Engineering, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland.; <sup>3</sup>Laser Remote Sensing Unit, Physics Department, National Technical University of Athens, Zografou, Greece; <sup>4</sup>Department of Environmental Science, Aarhus University, Roskilde, Denmark.; <sup>5</sup>Leibniz-Institut für Troposphärenforschung, Leipzig, Deutschland.; <sup>6</sup>DTU Wind and Energy Systems, Technical University of Denmark, Roskilde, Denmark.

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ID: 155 / PO1: 179

### **The T-Bird – A new aircraft-towed instrument platform to measure turbulence and aerosol properties close to the surface**

Zsófia Jurányi<sup>1</sup>, Laura Köhler<sup>1</sup>, Christof Lüpkes<sup>1</sup>, Frank Stratmann<sup>2</sup>, Jörg Hartmann<sup>1</sup>, Jonas Schaefer<sup>2</sup>, Bruno Wetzel<sup>2</sup>, Anna-Marie Jörss<sup>1</sup>, Alexander Schulz<sup>1</sup>, David Simon<sup>2</sup>, Andreas Herber<sup>1</sup>

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**ID: 1000 / PO1: 180**

### **Validation of methods for simulating aerosol samples from remote dust sources using a resuspension chamber**

Federica Bruschi<sup>1</sup>, Beatrice Moroni<sup>1</sup>, Marco Massetti<sup>1,2</sup>, Chiara Petroselli<sup>1</sup>, Silvia Nava<sup>3</sup>, Mirko Severi<sup>4</sup>, David Cappelletti<sup>1</sup>

<sup>1</sup>Department of Chemistry, Biology and Biotechnology, University of Perugia, Perugia, 06123, Italy; <sup>2</sup>Department of environmental sciences, informatics and statistics, University of Venice, Mestre, 30170, Italy; <sup>3</sup>Department of Physics and Astronomy, University of Florence and INFN, Sesto F.no, 50019, Italy; <sup>4</sup>Department of Chemistry "Ugo Schiff", University of Florence, 50019 Sesto Fiorentino (FI), Italy

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**ID: 425 / PO1: 181**

### **A Simple Surface-bulk Partitioning Model for Estimating Size-dependent Surface Tension of Deliquesced Aerosol Particles**

Rikuto Minamikawa<sup>1</sup>, ManNin Chan<sup>2</sup>, Masao Gen<sup>3</sup>

<sup>1</sup>Institute of Multidisciplinary Research for Advanced Material, Tohoku University, Sendai, Japan; <sup>2</sup>The Institute of Environment, Energy, and Sustainability, The Chinese University of Hong Kong, Hong Kong 999077, China; <sup>3</sup>Department of Applied Chemistry, Faculty of Science and Engineering, Chuo University, Tokyo, Japan

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**ID: 491 / PO1: 182**

### **Cloud Condensation Nuclei properties and variability at Mt. Cimone station**

Cecilia Magnani<sup>1,2</sup>, Marco Zanatta<sup>1</sup>, Franziska Vogel<sup>1</sup>, Laura Renzi<sup>1</sup>, Martina Mazzini<sup>1</sup>, Stefano Decesari<sup>1</sup>, Paolo Cristofanelli<sup>1</sup>, Andrea Gambaro<sup>2</sup>, Angela Marinoni<sup>1</sup>

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**ID: 959 / PO1: 183**

### **Cloud droplet spectra measurements: comparison in low stratiform clouds**

Nadezda Zikova<sup>1</sup>, Kajal Julaha<sup>1,2</sup>, Pavel Sedlak<sup>3</sup>, Vladimir Zdimal<sup>1</sup>, David Brus<sup>4</sup>

<sup>1</sup>ICPF CAS CZ, Czech Republic; <sup>2</sup>Faculty of Mathematics and Physics, Charles University, Czech Republic; <sup>3</sup>IAP CAS CZ, Czech Republic; <sup>4</sup>Finnish Meteorological Institute, Finland

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**ID: 568 / PO1: 184**

### **Polysaccharides - Important Constituents of Ice Nucleating Particles of Marine Origin**

Roland Schrödner<sup>1</sup>, Susan Hartmann<sup>1</sup>, Brandon Hassett<sup>2</sup>, Markus Hartmann<sup>1</sup>, Manuela van Pinxteren<sup>1</sup>, Khanneh Wadinga Fomba<sup>1</sup>, Frank Stratmann<sup>1</sup>, Mira Pöhlker<sup>1</sup>, Hartmut Herrmann<sup>1</sup>, Sebastian Zeppenfeld<sup>1</sup>

<sup>1</sup>Leibniz-Institute for Tropospheric Research, Germany; <sup>2</sup>Department of Arctic and Marine Biology, UiT – The Arctic University of Norway, Tromsø, Norway

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**ID: 876 / PO1: 185**

### **Can CCN activation of insoluble particles be predicted based on water adsorption measurements?**

Ari Laaksonen<sup>1,2</sup>, Ana A. Piedehierro<sup>1</sup>, Yrjö Viisanen<sup>1</sup>, Golnaz Roudsari<sup>1</sup>, André Welti<sup>1</sup>

<sup>1</sup>Finnish Meteorological Institute, Helsinki, Finland; <sup>2</sup>University of Eastern Finland, Kuopio, Finland

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**ID: 191 / PO1: 186**

### **CARGO-ACT – towards a global interoperability for aerosol, cloud and trace gas research infrastructures**

Mikhail Paramonov<sup>1</sup>, Honey Alas<sup>2</sup>, Alfred Wiedensohler<sup>2</sup>, Doina Nicolae<sup>3</sup>, Ellsworth J. Welton<sup>4</sup>, Elisabeth Andrews<sup>5,6</sup>, Ewan O'Connor<sup>7</sup>

<sup>1</sup>ACTRIS ERIC, Finland; <sup>2</sup>Leibniz Institute for Tropospheric Research; <sup>3</sup>National Institute of Research and Development for Optoelectronics; <sup>4</sup>NASA; <sup>5</sup>CIRES, University of Colorado; <sup>6</sup>GML, NOAA; <sup>7</sup>Finnish Meteorological Institute

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**ID: 892 / PO1: 187**

### **Cloud-Aerosol-Interactions in a Nitrogen-dominated Atmosphere (CAINA) – New particle formation, Activation, and Turbulence**

Birgit Wehner<sup>1</sup>, Mona Kellermann<sup>1</sup>, Manuel Lohoff<sup>1</sup>, Hermann Winter<sup>1</sup>, Christian Pilz<sup>1</sup>, Mira Pöhlker<sup>1</sup>, Ulrike Dusek<sup>2</sup>, Holger Siebert<sup>1</sup>

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**ID: 497 / PO1: 188**

### **Ice-nucleating particles at a background site in the southeast Tibetan Plateau**

Liang Ran<sup>1</sup>, Zhaoze Deng<sup>1</sup>, Ping Tian<sup>2</sup>, Mengyu Huang<sup>2</sup>, Yunfei Wu<sup>1</sup>, Jianchun Bian<sup>1</sup>

<sup>1</sup>LAEEM/LAGEO, Institute of Atmospheric Physics, Chinese Academy of Sciences, Beijing, 100029, China; <sup>2</sup>Beijing Key Laboratory of Cloud, Precipitation and Atmospheric Water Resources, Beijing, 100089, China

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**ID: 954 / PO1: 189**

### **Ice-nucleating properties of mineral dust particles from Taklimakan Desert**

Zhaoze Deng<sup>1</sup>, Liang Ran<sup>1</sup>, Yunfei Wu<sup>1</sup>, Ping Tian<sup>2</sup>, Mengyu Huang<sup>2</sup>

**ID: 1067 / PO1: 190**

**Co-located real-time bioaerosol monitoring and measurements of Ice Nucleating Particles (INP) at the rural background station Melpitz**

**Markus Hartmann, Heike Wex, Susan Hartmann**

Leibniz-Institute for Tropospheric Research (TROPOS), Germany

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**ID: 657 / PO1: 191**

**Investigations on the cirrus cloud seeding abilities of K-feldspar dust particles**

**Kunfeng Gao, Zamin A. Kanji**

Institute for Atmospheric and Climate Sciences, ETH Zurich, Switzerland

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**ID: 673 / PO1: 192**

**Synergistic Observations of Aerosol-Cloud Interactions During Long-Range Transported Dust Events**

**Gabriela Ciocan<sup>1,2</sup>, Anca Nemuc<sup>1</sup>, Jeni Vasilescu<sup>1</sup>, Livio Belegante<sup>1</sup>, Razvan Pirloaga<sup>1</sup>**

<sup>1</sup>National Institute Of Research And Development For Optoelectronics - Inoe 2000, Remote Sensing Department, Romania; <sup>2</sup>Faculty of Physics, University of Bucharest, Romania

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**ID: 139 / PO1: 193**

**Does decreasing of sulphur concentration influence the amount of low clouds?**

**Adéla Holubová Šmejkalová, Marcela Hejkrliková, Radek Lhotka**

The Czech hydrometeorological institute, Czech Republic

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**ID: 965 / PO1: 194**

**Investigating Marine Aerosol Variability and Climate Feedbacks: A Multi-Site Analysis Using Particle Composition and Size Distribution Data**

**Gurmanjot Singh<sup>1</sup>, Annele Virtanen<sup>1</sup>, Harri Kokkola<sup>1,2</sup>, Wei Xu<sup>3</sup>, Jurgita Ovadnevaite<sup>3</sup>, Darius Ceburnis<sup>3</sup>, Chris Lunder<sup>4</sup>, Wenche Aas<sup>4</sup>, Markus Fiebig<sup>4</sup>, Taina Yli-Juuti<sup>1</sup>**

<sup>1</sup>Department of Technical Physics, University of Eastern Finland, Kuopio, 70200, Finland; <sup>2</sup>Finnish Meteorological Institute, Kuopio, 70200, Finland; <sup>3</sup>School of Natural Sciences, Physics, University of Galway, Galway, H91 CF50, Ireland; <sup>4</sup>NILU, Kjeller, 2007, Norway

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**ID: 998 / PO1: 195**

**10 years of particle number size distribution in the urban supersite of Bologna in the Po Valley (Italy)**

**Arianna Trentini, Dimitri Bacco, Fabiana Scotto, Vanes Poluzzi**

ARPAE, Italy

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**ID: 1138 / PO1: 196**

**Atmospheric conditions that drive NPF events: a case study**

**Aare Luts, Urmas Horrak, Kaupo Komsaare, Marko Vana, Heikki Junninen**

Tartu University, Estonia

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**ID: 737 / PO1: 197**

**Bi-directional vertical transport of cluster ions during new particle formation**

**Luzie Kretschmer, Andreas Held**

Technische Universität Berlin, Germany

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**ID: 1023 / PO1: 198**

**Diurnal cycle of new particle formation in the upper troposphere above the Amazon**

**Anouck Chassaing<sup>1,2</sup>, Ilona Riipinen<sup>1,2</sup>, Radovan Krejci<sup>1,2</sup>, Roman Bardakov<sup>1,2</sup>**

<sup>1</sup>Stockholm University, Sweden; <sup>2</sup>Bolin Centre for Climate Research, Sweden

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**ID: 407 / PO1: 199**

**Enhanced new particle formation in Milan due to low pollution and atmospheric mixing**

**Myriam Agro<sup>1</sup>, Manuel Bettineschi<sup>1</sup>, Silvia Melina<sup>2</sup>, Juha Sulo<sup>1</sup>, Katrianne Lehtipalo<sup>1</sup>, Tuukka Petäjä<sup>1</sup>, Ivan Grigioni<sup>2</sup>, Giancarlo Ciarelli<sup>1</sup>, Janne Lampilahti<sup>1</sup>, Cristina Colombi<sup>3</sup>, Beatrice Biffi<sup>3</sup>, Angela Marinoni<sup>4</sup>, Alessandro Bigi<sup>5</sup>, Celestine Oliewo<sup>5</sup>, Markku Kulmala<sup>1</sup>, Federico Bianchi<sup>1</sup>**

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**ID: 1059 / PO1: 200**

**First Determination of New Particle Formation in Istanbul**

**Melike Servin Coşgun<sup>1</sup>, Ülkü Alver Şahin<sup>1</sup>, Panayiotis Kalkavouras<sup>2</sup>, Coşkun Ayvaz<sup>1</sup>, Burcu Uzun Ayvaz<sup>1</sup>, Zehra Çolak<sup>1</sup>, Burcu Onat<sup>1</sup>, Sadullah Levent Kuzu<sup>3</sup>, Gülen Güllü<sup>4</sup>, Mihalopoulos Nikolaos<sup>2</sup>, Roy Harrison<sup>5,6</sup>**

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**ID: 466 / PO1: 201**

**New particle formation in urban background conditions in the Po valley**

**Celestine Atieno Oliewo<sup>1,2</sup>, Marco Paglione<sup>3</sup>, Matteo Rinaldi<sup>3</sup>, Arianna Trentini<sup>4</sup>, Grazia Ghermandi<sup>1</sup>, Alessandro Bigli<sup>1</sup>**

<sup>1</sup>University of Modena and Reggio Emilia, Italy; <sup>2</sup>Istituto Universitario di Studi Superiori IUSS Pavia, Italy; <sup>3</sup>Institute of Atmospheric Sciences and Climate, National Research Council of Italy; <sup>4</sup>ARPAE Emilia-Romagna, Regional Agency for Prevention, Environment and Energy, Bologna, Italy

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**ID: 543 / PO1: 202**

**Observations of atypical decreasing mode diameter events at a rural background site in Cyprus**

**Vijay Punjaji Kanawade<sup>1</sup>, Neha Deot<sup>1</sup>, Mihai M. Ciobanu<sup>1</sup>, Alike Christodoulou<sup>1,2</sup>, Anchal Garg<sup>1</sup>, Efstratios Bourtsoukidis<sup>1</sup>, Alkistis Papetta<sup>1</sup>, Rima Baalbaki<sup>1</sup>, Michael Pikridas<sup>1</sup>, Spyros Bezantakos<sup>1</sup>, George Biskos<sup>1</sup>, Franco Marengo<sup>1</sup>, Jean Sciare<sup>1</sup>, Tuija Jokinen<sup>1</sup>**

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**ID: 380 / PO1: 203**

**Differences of New Particle Formation in Seoul and Seosan, South Korea**

**Yoonkyeong Ha<sup>1</sup>, Jeongbeen Kim<sup>1</sup>, Mijung Song<sup>2,3</sup>, Ji Yi Lee<sup>4</sup>, Kyoung-Soon Jang<sup>5</sup>, Kwangyul Lee<sup>6</sup>, Junyoung Ahn<sup>6</sup>, Changhyuk Kim<sup>1,7</sup>**

<sup>1</sup>School of Civil and Environmental Engineering, Pusan National University, Busan 46241, South Korea; <sup>2</sup>Department of Earth and Environmental Sciences, Jeonbuk National University, Jeonju, 54896, South Korea; <sup>3</sup>Department of Environment and Energy, Jeonbuk National University, Jeonju, 54896, South Korea; <sup>4</sup>Department of Environmental Science and Engineering, Ewha Womans University, Seoul, 03760, South Korea; <sup>5</sup>Digital Omics Research Center, Korea Basic Science Institute, Cheongju, 28119, South Korea; <sup>6</sup>Division of Climate and Air Quality Research, National Institute of Environmental Research, Incheon, 22689, South Korea; <sup>7</sup>Institute for Environment and Energy, Pusan National University, Busan 46241, South Korea

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**ID: 550 / PO1: 204**

**Estimation of particle growth rate using cross-correlation**

**Janne Lampilahti, Santeri Tuovinen, Katrianne Lehtipalo, Pauli Paasonen, Veli-Matti Kerminen, Markku Kulmala**

University of Helsinki, Finland

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**ID: 772 / PO1: 205**

**Humidity driven spontaneous OH radical-initiated oxidation of organic aerosols**

**Maria Angelaki<sup>1</sup>, D. James Donaldson<sup>2,3</sup>, Sebastien Perrier<sup>1</sup>, Matthieu Riva<sup>1,4</sup>, Christian George<sup>1</sup>**

<sup>1</sup>Université Claude Bernard Lyon 1, CNRS, IRCELYON, UMR 5256, F-69626, Villeurbanne, France; <sup>2</sup>Department of Chemistry, University of Toronto, 80 George Street, Toronto, Ontario, Canada M5S 3H6; <sup>3</sup>Department of Physical and Environmental Sciences, University of Toronto, Scarborough, 1265 Military Trail, Toronto, ON Canada M1C 1A4; <sup>4</sup>Tofwerk AG, Thun, Bern, Switzerland

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**ID: 689 / PO1: 206**

**Characterisation of VOC over the Great Barrier Reef**

**Magdalena Okuljar<sup>1</sup>, Juha Sulo<sup>1</sup>, Zijun Li<sup>1</sup>, Joel Alroe<sup>1</sup>, Daniel Harrison<sup>2</sup>, Zoran Ristovski<sup>1</sup>**

<sup>1</sup>Queensland University of Technology, Australia; <sup>2</sup>Southern Cross University, Australia

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**ID: 381 / PO1: 207**

**Competitive multiphase reactions of deliquesced aerosol particles in the presence of SO<sub>2</sub> and NO<sub>2</sub> regulated by aerosol pH**

**Nanami Emori, Masao Gen**

Chuo University

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**ID: 567 / PO1: 208**

**SOA precursor emissions in and above a forest consisting of beech and Douglas fir and their relation to aerosol particle numbers and composition**

**Xuefeng Shi, Hao Li, Yanxia Li, Aurélie Orphal, Uzoamaka Ezenobi, Thomas Leisner, Harald Saathoff**

Karlsruhe Institute of Technology, Germany

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**ID: 114 / PO1: 209**

**THE IMPACT OF VEHICLE EMISSION CHARACTERISTICS ON SECONDARY AEROSOL FORMATION: A LABORATORY STUDY USING AN OXIDATION FLOW REACTOR**

**Fabio Sasso<sup>1</sup>, Francesca Picca<sup>1</sup>, Salvatore Florio<sup>2</sup>, Corrado Fittavolini<sup>2</sup>, Antonello Tilocca<sup>2</sup>, Massimiliano Tincani<sup>2</sup>, Daniele Limirolli<sup>2</sup>, Andrea D'Anna<sup>1</sup>**

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**ID: 763 / PO1: 210**

**Growth of coating thickness driving absorption enhancement in the urban city of Barcelona**

**Laura Renzi<sup>1</sup>, Angela Marinoni<sup>1</sup>, Marco Zanatta<sup>1</sup>, Paolo Laj<sup>2</sup>, Xavier Querol<sup>3</sup>, Marco Pandolfi<sup>3</sup>**

**ID: 271 / PO1: 211**

**Impact of Agricultural Emissions on Rural and Urban Air Quality (IMAGE)**

**Vivien Corona Ramirez<sup>1</sup>, David O'Connor<sup>2</sup>, Stig Hellebust<sup>3</sup>, Alan Gilmer<sup>1</sup>, Vivienne Byers<sup>1</sup>, Aoife Donnelly<sup>1</sup>, Eoin McGillicuddy<sup>1</sup>**

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**ID: 1216 / PO1: 212**

**CFD and Experimental Investigation of Time-Controlled Aerosol Delivery from a Nebulizer in respiratory airways**

**Miloslav Belka, Ondrej Misik, Frantisek Lizal, Jakub Elcner, Miroslav Jicha**

Brno university of technology, Czech Republic

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**ID: 1219 / PO1: 213**

**Formation and Aging of Nitrogen-Containing Organic Aerosol**

**Ru-Jin Huang, Lu Yang, Wei Huang, Li Liu**

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**ID: 1060 / PO1: 214**

**PM10-bacterial infection interaction in A549 cells: A One Health perspective**

**Paula Rodríguez Rodríguez<sup>1</sup>, Blanca Lorente Torres<sup>2</sup>, Michal Letek Polberg<sup>2</sup>, Catia Vanessa Maio Gonçalves<sup>1</sup>, Estela Alexandra Domingos Vicente<sup>3</sup>, Carla Alonso Rodríguez<sup>1</sup>, Fernando José Pereira García<sup>4</sup>, Carlos Del Blanco Alegre<sup>1</sup>, Roberto Fraile Laiz<sup>1</sup>, Darrel Baumgardner<sup>5</sup>, Ana Isabel Calvo Gordaliza<sup>1</sup>**

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**ID: 1134 / PO1: 215**

**Analysis of PM2.5 concentrations in African countries: findings from 2019 to 2024**

**Lucrecia Bilé Osa-Akara<sup>1</sup>, Ana Isabel Calvo<sup>1</sup>, Cátia Vanessa Maio Gonçalves<sup>1</sup>, Carlos del Blanco Alegre<sup>1</sup>, Ramón Castelo Alvarez<sup>2</sup>, Victoria Opo Mete<sup>2</sup>, Sonia Araceli Eyang Ndong<sup>2</sup>, Evi Becerra Acosta<sup>1</sup>, Darrel Baumgardner<sup>3</sup>, Roberto Fraile<sup>1</sup>**

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**ID: 215 / PO1: 216**

**Atmospheric particles, airborne bacteria and fungi at Akrotiri monitoring station (Crete, Greece)**

**Sofia Firini Chatoutsidou<sup>1</sup>, Ioannis Galiatsos<sup>2</sup>, Panagiota Stathopoulou<sup>2</sup>, George Tsiamis<sup>2</sup>, Mihalis Lazaridis<sup>1</sup>**

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**ID: 254 / PO1: 217**

**Impact of a bioethanol fireplace on indoor pollutant concentrations under different operating conditions**

**Estela Vicente<sup>1</sup>, Jiri Ryšavý<sup>2</sup>, Yago Cipoli<sup>1</sup>, Teresa Nunes<sup>1</sup>, Gustavo Higawa<sup>1</sup>, Manuel Feliciano<sup>3</sup>, Célia Alves<sup>1</sup>**

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**ID: 281 / PO1: 218**

**PM10 source apportionment combining aerosol size and light absorption properties from high-time-resolution optical sensors: multi-year analysis, comparison with chemical speciation, and real-time implementation at an urban site in an Italian Alpine valley**

**Henri Diémoz<sup>1</sup>, Francesca Barnaba<sup>2</sup>, Luca Ferrero<sup>3</sup>, Annachiara Bellini<sup>1</sup>, Claudia Désandré<sup>1</sup>, Tiziana Magri<sup>1</sup>, Caterina Mapelli<sup>2,4</sup>, Devis Panont<sup>1</sup>, Ivan K.F. Tombolato<sup>1</sup>, Manuela Zublena<sup>1</sup>**

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**ID: 440 / PO1: 219**

**Effects of the hygroscopicity and mass scattering efficiency of secondary organic aerosols on light scattering**

**Li Liu<sup>1</sup>, Ye Kuang<sup>2</sup>, Xuejiao Deng<sup>1</sup>**

<sup>1</sup>Guangzhou Institute of Tropical and Marine Meteorology, China Meteorological Administration, China; <sup>2</sup>Institute for Environmental and Climate Research, Jinan University, China

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**ID: 744 / PO1: 220**

**Estimating the growth characteristics of commonly used pesticide (Glyphosate) aerosols**

**Gaurav Mishra, Félicie Theron, Ala Bouhanguel, Aurélie Joubert, Yves André**

IMT Atlantique, Nantes, France, France

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ID: 1191 / PO1: 221

### Study and Identification of Benzene Emission Sources in a Complex Industrial Area in Taranto (Italy)

Alessandra Nocioni<sup>1</sup>, Valerio Margiotta<sup>1</sup>, Tiziano Pastore<sup>1</sup>, Davide Vignola<sup>2</sup>, Francesca Sollecito<sup>1</sup>, Vincenzo Campanaro<sup>1</sup>

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ID: 339 / PO1: 222

### Characterization and Source Apportionment of Ambient Air Particulate Matter (PM<sub>2.5</sub>) across Lagos, Nigeria using PMF

Adebola Odu-Onikosi<sup>1,2</sup>, Paul A. Solomon<sup>3</sup>, Philip K. Hopke<sup>1,4</sup>

<sup>1</sup>Clarkson University, United States of America; <sup>2</sup>EnvironQuest Limited, Nigeria; <sup>3</sup>PAS Environmental, LLC, United States of America;

<sup>4</sup>University of Rochester, United States of America

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ID: 361 / PO1: 223

### Aerosols collection through dynamic fog aggregation: the case of asbestos

José Luis Pérez-Díaz<sup>1,2</sup>, Cristina Del Álamo-Toraño<sup>1</sup>, Sonia Peiró<sup>2</sup>, Elisa María Ruiz-Navas<sup>3</sup>, Francisco Javier Pérez-Del-Álamo<sup>2</sup>, Juan Sánchez-García-Casarrubios<sup>4</sup>, María del Pilar Del Álamo-Lobo<sup>2</sup>

<sup>1</sup>Escuela Politécnica Superior, Universidad de Alcalá, 28805 Alcalá de Henares, Spain; <sup>2</sup>Counterfog, SL, 28341 Valdemoro, Spain;

<sup>3</sup>Materials Science and Engineering Department, IAAB, Universidad Carlos III de Madrid, Leganés, 28911, Spain; <sup>4</sup>San Jorge Tecnológicas SL, Valdemoro, 28341, Spain

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ID: 647 / PO1: 224

### PM in restaurant kitchen air - preliminary results

Patrycja Rogula-Kopiec<sup>1</sup>, Wioletta Rogula-Kozłowska<sup>2</sup>, Artur Badyda<sup>1</sup>, Karolina Bralewska<sup>2</sup>

<sup>1</sup>Warsaw University of Technology, Poland; <sup>2</sup>Fire University, Poland

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ID: 632 / PO1: 225

### Particulate matter in the selected fire station in Poland: concentration and size distribution

Karolina Bralewska<sup>1</sup>, Wioletta Anna Rogula-Kozłowska<sup>1</sup>, Jarosław Białas<sup>1</sup>, Patrycja Rogula-Kopiec<sup>2</sup>, Barbara Mathews<sup>2</sup>

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ID: 364 / PO1: 226

### Water- and methanol-extracted brown carbon in PM<sub>2.5</sub> in southwest Europe

Noelia Gomez-Sanchez, Eduardo Yubero, Marina Alfosea-Simon, Álvaro Clemente, Laura Pastor, José Francisco Nicolás, Javier Crespo, Nuria Galindo

Miguel Hernández University, Spain

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ID: 1039 / PO1: 227

### Impact of smoking regime (ISO/HCI) on the emissions of PM and carbonyls of new tobacco products

Efthimios Zervas, Niki Matsouki, Chara Tsipa, Maria Makrygianni, Zoe Gareiou, Areti Tseliou

Hellenic Open University, Greece

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ID: 459 / PO1: 228

### Intercomparison experiments of two INP spectrometers (INSEKT and GRAINS) at AIDA chamber

Elena Bazo<sup>1,2</sup>, Kristina Höhler<sup>3</sup>, Alexander Böhmmländer<sup>3</sup>, Nsikanabasi Silas Umo<sup>3</sup>, Najin Kim<sup>4</sup>, Larissa Lacher<sup>3</sup>, Gloria Titos<sup>1,2</sup>, Olga Ruiz-Galera<sup>1</sup>, Francisco José Olmo<sup>1,2</sup>, Lucas Alados-Arboledas<sup>1,2</sup>, Ottmar Möhler<sup>3</sup>, Alberto Cazoria<sup>1,2</sup>

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ID: 1005 / PO1: 229

### First results of airborne pollen grain observations in a coastal location in Crete, Greece

Kyriaki Papoutsidaki<sup>1</sup>, Aikaterini Bougiatioti<sup>2</sup>, Roland Sarda Estève<sup>3</sup>, Nikolaos Mihalopoulos<sup>2</sup>, Maria Kanakidou<sup>1,4,5</sup>

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ID: 1213 / PO1: 230

### A novel approach for spectral-based source apportionment of ambient aerosols: A demonstrative study

Ajtai Tibor<sup>1,2</sup>, Csilla Gombi<sup>1</sup>, Szabolcs Hodovány<sup>1</sup>, István Magashegyi<sup>1</sup>, Abdul Rahman<sup>1,2</sup>, Zoltán Bozóki<sup>1,2</sup>, Gábor Szabó<sup>1,2</sup>

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