Conference Agenda

Session

Poster Session Tuesday

Time: **Tuesday, 02/Sept/2025: 5:15pm - 6:45pm**

Location: **Studium2000**

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

Presentations

Switching regimes in fire plumes: regional implications

Eleni Dovrou[1,2], Apostolos Voulgarakis[1,2]

[1]School of Chemical and Environmental Engineering, Technical University of Crete, Greece; [2]Leverhulme Center for Wildfires, Environment and Society, Imperial College London, London, UK

Biomass Burning Organic Aerosols as a Pool of Atmospheric Reactive Triplets to Drive Multiphase Sulfate Formation

Chak Keung Chan[1], Zhancong Liang[1], Liyuan Zhou[1], Yuqing Chang[1], Yiming Qin[2]

[1]King Abdullah University of Science and Technology, Saudi Arabia; [2]City Univeristy of Hong Kong, Hong Kong

Aerosol composition and gas/particle partitioning in a nitrogen dominated atmosphere

Pascale Ooms[1], Farhan Nursanto[1], Willem Kroese[2], Marianne Heida[3], Margreet van Zanten[1,3], Roy Wichink Kruit[3], Marte Voorneveld[3], Marten in 't Veld[3], Rupert Holzinger[2], Uli Dusek[4], Juliane Fry[1]

[1]Wageningen University & Research, the Netherlands; [2]Utrecht University, the Netherlands; [3]National Institute for Public Health and Environment, the Netherlands; [4]Rijksuniversiteit Groningen, the Netherlands

Chemical formation pathways of secondary organic aerosols in the Beijing-Tianjin-Hebei region in wintertime

Jie Li

Yunnan University, China

Cross-validation of methods for quantifying the contribution of local (urban) and regional sources to PM2.5 pollution: Application in the Eastern Mediterranean (Cyprus)

Elie Bimenyimana[1], Jean Sciare[1], Konstantina Oikonomou[1], Minas Iakovides[1], Michael Pikridas[1], Emily Vasiliadou[3], Chrysanthos Savvides[3], Nikos Mihalopoulos[1,2]

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Characterization and Source Apportionment of Ambient Air Particulate Matter (PM2.5) across Lagos, Nigeria using PMF

Adebola Odu-Onikosi[1,2], Paul A. Solomon[3], Philip K. Hopke[1,4]

[1]Clarkson University, United States of America; [2]EnvironQuest Limited, Nigeria; [3]PAS Environmental, LLC, United States of America; [4]University of Rochester, United States of America

Black Carbon Trends and Source Apportionment in Berlin: A Multi-Year Analysis

Himanshu Setia[1], Michael Pikridas[2], Seán Schmitz[1], Erika Von Schneidemesser[1]

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Aerosols from Biomass Burning: A Comparative Study under Controlled and Uncontrolled Combustion Conditions

Durre Nayab Habib, Laurynas Bucinskas, Andrius Garbaras, Agne Masalaite

State Research Institute, Center For Physical Sciences And Technology, Vilnius, Lithuania, Lithuania

Modelling Air Pollution in Coastal Industrial Zones of Chile: A Fuzzy Clustering and High-Resolution Spatial Approach Including the “Gray Zone”

Miguel Ángel Lugo Salazar, Hector Iván Jorquera González

Pontifical Catholic University of Chile, Chile

Source apportionment analysis of phosphorus in PM2.5 and PM10 in two Greek cities

Kyriaki Papoutsidaki[1], Georgios Grivas[2], Faidra Aikaterini Kozonaki[1,2], Kalliopi Tavernaraki[1], Konstantina Oikonomou[3], Irini Tsiodra[2], Maria Tsagkaraki[1], Aikaterini Bougiatioti[2], Nikolaos Mihalopoulos[2], Maria Kanakidou[1,4,5]

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Source apportionment of aerosol particles by positive matrix factorization in urban background environment (Vilnius, Lithuania)

Viachaslau Alifirenka, Vitalij Kovalevskij, Mindaugas Gaspariūnas, Mindaugas Bernatonis, Steigvilė Byčenkienė

State research institute Center for Physical Sciences and Technology, Lithuania

Spatial characterization of Urban Particle Phase Pollution Sources through Mobile Measurements in Sarajevo

Michael Bauer[1], Jay Gates Slowik[1], Marta Via[2], Peeyush Khare[1,5], Benjamin Guy Jacques Chazeau[3], Kristina Glojek[1,6], Manousos Ioannis Manousakas[1,7], Zachary C.J. Decker[1,8], Almir Bijedić[4], Enis Krečinić[4], Griša Močnik[2], André S. H. Prévôt[1], Katja Džepina[1]

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Chemical composition, sources and vertical transport of non-refractory submicron aerosol in Po Valley: simultaneous on-line measurements at Bologna (54 m a.s.l.) and Mt. Cimone (2165 m a.s.l.)

Marco Rapuano[1], Cecilia Magnani[1], Matteo Rinaldi[1], Marco Paglione[1], Alessandro Bracci[1], Ferdinando Paqualini[1], Laura Renzi[1], Martina Mazzini[1], Simonetta Montaguti[1], Claudia Roberta Calidonna[2], Marco Zanatta[1], Camilla Perfetti[1], Nora Zannoni[1], Stefano Decesari[1], Angela Marinoni[1]

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Comprehensive source apportionment of black carbon at a rural site in Punjab using the aethalometer model and positive matrix factorization (PMF) model

Ajit Kumar[1], Vikas Goel[1,3], Mohammad Faisal[2,4], Umer Ali[2], Anjanay Pandey[2], Vikram Singh[2], Mayank Kumar[1]

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Advancing Air Quality and Climate Insights in Lahti, Finland: Investigating Regional Emission Sources

Haitong Zhang[1,2], Benjamin Foreback[1,2], Michael Boy[1,2,3]

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Black carbon source apportionment and long-range transport effects in urban areas across warm and cold seasons

Moritz Hey[1,2], Agne Minderyte[3], Nikolaos Evangeliou[4], Steigvilė Byčenkienė[3], Iwona S. Stachlewska[2]

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Light Absorbing Carbon in Atmospheric Particulate Matter in Lagos

Adebola Odu-Onikosi[1,2], Paul Solomon[3], Philip K. Hopke[1,4]

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Evaluation of aerosol optical properties of cooking emissions in rural East African homes

Andrea Cuesta-Mosquera[1], Thomas Müller[1], Leizel Madueno[1], Allan Mubiru[2], Christine Muhongerva[3], Manuela van Pinxteren[1], Dominik van Pinxteren[1], Henning Kothe[4], Mira Pöhlker[1]

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Optical and Aerodynamic Properties of Solid Aerosol Aggregates in the Context of Potential Stratospheric Aerosol Injection

Zhongxia Sun[1], Sandro Vattioni[2], Martin Gysel-Beer[1]

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Characteristics of Black Carbon in San Luis Potosi City, Mexico.

Valter Armando Barrera Lopez[1], Juan Pablo Lopez[2], Guadalupe Galindo[3]

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Unraveling the Role of PAHs in Shaping Primary and Secondary Brown Carbon Absorption in Eastern India's Semi-Urban Atmosphere

Prerna Thapliyal[1], Apoorvi Sharma[1], Ashish Soni[2], Pratibha Vishwakarma[1], Tarun Gupta[1]

[1]Indian Institute of Technology, Kanpur, India; [2]Indian Institute of Tropical Meteorology, Pune, India

Wintertime aerosol chemical composition over the Arabian Sea based on shipboard collected aerosols: Implication to surface water biogeochemical processes

Garima Shukla[1,2], Ashwini Kumar[1,2]

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Spatial and Seasonal Variation in Chemical Composition of Urban Residential Outdoor PM2.5 across four cities in India

Rajdeep Singh, Vinayak Sahota, Sonali Borse, Akshay Kumar, Harish C. Phuleria
Indian Institute of Technology Bombay, India

Multiphase Aerosol-Cloud Chemistry and Secondary Aerosol Formation from α-pinene

Laurie Anne Novák[1], Jinglan Fu[2,4], Willem S. J. Kroese[3], Juliane Fry[1], Maarten Krol[1,3]
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On-line speciation of glyoxal multiphase reactions on deliquesced ammonium sulfate particles

Anne Monod[1], Nicolas Brun[1], Anil Kumar Mandariya[2], Junteng Wu[3], Jian Xu[1], Manon Rocco[1], Laurent Poulain[4], Mathieu Cazaunau[2], Antonin Berge[2], Edouard Pangui[2], Brice Temime-Roussel[1], Bénédicte Picquet-Varrault[2], Jean-Louis Clément[1], Aline Gratien[2], Liang Wen[4], Thomas Schaefer[4], Andreas Tilgner[4], Hartmut Herrmann[4], Jean-François Doussin[2]
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Playing with bricks: speciation models to depict the interaction among water-soluble components of the atmospheric particulate matter

Stefano Bertinetti[1], Matteo Marafante[1], Luca Carena[1], Clemente Bretti[2], Demetrio Milea[2], Anna Annibaldi[3], Cristina Truzzi[3], Silvia Illuminati[3], Debora Fabbri[1], Davide Vione[1], Milena Sacco[4], Mery Malandrino[1], Silvia Berto[1]
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Results from the first chemical ionization mass spectrometry Intercomparison Workshop at the TROPOS twin chamber setup in ACTRIS CiGas

Peter Mettke[1], Nina Sarnela[2], Falk Mothes[1], Hartmut Herrmann[1]
[1]Atmospheric Chemistry Department (ACD), Leibniz Institute for Tropospheric Research, Germany (TROPOS); [2]Institute for Atmospheric and Earth System Research (INAR) / Physics, University of Helsinki

Concentrations of Key Atmospheric Pollutants: BC and PAHs in PM2.5 – Levels, Meteorological Influence, Correlation with Other Pollutants and Health Aspects

Lenia-Nezaet de Brito Gonsalvesh[1], Nadya Neykova[2], Blagorodka Veleva[2], Stela Naydenova[1], Anife Veli[1], Zilya Mustafa[1], Elena Hristova[2]
[1]Burgas State University Prof. Dr Asen Zlatarov, Bulgaria; [2]National Institute of Meteorology and Hydrology, Sofia, Bulgaria

Effects of hydroperoxy radical heterogeneous loss on the summertime ozone formation in the North China Plain

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

Modelling for atmospheric radicals and oxidants on PM2.5 and O3 episodic and non-episodic days in an urban area of Taiwan

Shi-Ya Tang, Li-Hao Young
China Medical University, Taiwan

Photosensitization Induced by Carbonyl Compounds and Its Role in Secondary Aerosols Formation

Ruifeng Zhang, Chak Chan
King Abdullah University of Science and Technology, Saudi Arabia

Fast generation of peroxides via particulate photosensitization

Zhancong Liang, Liyuan Zhou, Chak K. Chan
King Abdullah University of Science and Technology, Saudi Arabia

Wildfire chromophores enhance the production of sulfate radicals in Ammonium Sulfate photochemistry

Angelina Petersen[1], Zonghao Luo[2], Alair Wong[1], Ruiyang Xiao[2], Tran Nguyen[1]
[1]University of California, Davis, United States of America; [2]Central South University, Changsha, China

Evaluation of the impact of climate change on air quality in Alpine valleys

Maria Chiara Bove, Andrea Bisignano, Andrea Giordano, Massimiliano Pescetto, Chiara Righi, Francesca Giannoni
Arpa Liguria, Italy

Numerical Analysis of Fuel Injection Control and Its Impact on Aerosol Formation and Transport in Urban Canyons and Open Environments

Mojtaba Bezaatpour[1], Mehrdad Nazemian[2], Miikka Dal Maso[1], Matti Rissanen[1,3]
[1]Tampere University, Finland; [2]Sahand University of Technology; [3]University of Helsinki

Dust contribution in the performance evaluation of the FARM dispersion model

Annalisa Tanzarella[1], Angela Morabito[1], Ilenia Schipa[1], Francesca Intini[1], Tiziano Pastore[1], Stefano Spagnolo[1], Nicola Pepe[2], Paola Radice[2], Roberto Primerano[1], Vincenzo Campanaro[1]
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Impact of Traffic Emissions on Near-Road Air Quality in the Presence of a Noise Barrier: A PALM-LES Simulation

Ali Kooh andaz[1], Xiaoyu Li[2], Ville Silvonen[1], Jarkko Niemi[3], Juan Andres Casquero-Vera[2], Sami D. Harni[4], Leena Järvi[2,5], Topi Rönkkö[1], Anu Kousa[3], Tommy Chan[2], Tuukka Petäjä[2], Hilkka Timonen[4], Miikka Dal Maso[1]
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Radiative Cooling in New York/New Jersey Metropolitan Areas by Wildfire Particulate Matter

Georgios A. Kelesidis[1,2], Constantinos Moularas[1,2], Hooman Parhizkar[2], Leonardo Calderon[3], Irini Tsiodra[4], Nikolaos Mihalopoulos[4,5], Marios Bruno Korras-Carraca[6], Nikolaos Hatzianastassiou[6], Panos G. Georgopoulos[2], Jose G. Cedeño Laurent[2], Philip Demokritou[2]
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Monitoring and Analysis of Black Carbon in different cities in Mexico

Valter Armando Barrera Lopez
UASLP, Mexico

Aerosol Model-Measurement Comparison for Improving the Prediction of Aircraft Engine Deterioration

Erik Seume[1], Barbara Harm-Altstädter[2], Lutz Bretschneider[2], Jan Göing[1]
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Desert dust exposure in sub-Saharan Africa: the case of the city of Cotonou, Benin

Marcos Migan[1,2], Fabrice Cazier[3], Nathalie Verbrugghe[4], Anthony Verdin[1], Fresnel Boris Cachon[2], Marc Fadel[1], Aurore Dega[2], Aaron Kakpo[2], Loïc Adonouhoue[2], Firmin Sagbo[2], Dorothee Dewaele[3], Nour Jaber[1], Faustin Aissi[1], Ulrich Patinvoh[5], Gildas Agodokpessi[5], Ménonvè Cynthia Atindehou[2], Arnauld Fiogbe[5], Richard Lalou[6], Dominique Courcot[1]
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Effects of Urban Form on PM2.5 Concentration Using Explanatory Machine Learning

Mehri Davtalab, Steigvilė Byčenkienė
SRI Center for Physical Sciences and Technology (FTMC), Lithuania

Investigating the vertical distribution of sporadic appearance of ultrafine aerosol particles emitted at the airport FRA

Malte Schuchard[1], Anna Voß[1], Konrad Bärfuss[1], Sven Bollmann[1], Lutz Bretschneider[1], Markus Hermann[2], Frank Holzäpfel[4], Ralf Käthner[2], Astrid Lampert[1], Falk Pätzold[1], Andreas Schlerf[1], Steffen Schmitt[3], Barbara Harm-Altstädter[1]
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Saharan Dust Transport in the Mediterranean: Circulation Patterns, Air Quality Monitoring, and Chemical Composition Analysis

Francesca Calastrini[1,3], Andrea Orlandi[2], Gianni Messeri[1,3], Riccardo Benedetti[3], Alessandro Zaldei[1], Carolina Vagnoli[1], Beniamino Gioli[1], Giovanni Gualtieri[1], Tommaso Giordano[1], Simone Putzolu[1], Silvia Becagli[4], Rita Traversi[4], Mirko Severi[4], Silvia Nava[5], Franco Lucarelli[6]
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Dust storm dynamics: a study using HYSPLIT and WRF to analyze dust transport patterns in León, Spain

Evi Becerra-Acosta[1], Ana I. Calvo[1], Josue M. Polanco-Martinez[2], Carlos Blanco-Alegre[1], Lucrecia Bile Osa-Akara[1], Darrel Baumgardner[3], Roberto Fraile[1]
[1]University of Leon, Spain; [2]University of Salamanca; [3]Droplet Measurement Technologies

Enhancing Air Quality Governance: Results from LIFE SIRIUS in Rome

Maria Agostina Frezzini, Donatella Occhiuto, Laura Bennati, Arianna Marinelli, Alessandro Di Giosa
Enviromental Protection Agency of Lazio Region ARPA Lazio, Italy

High-Resolution Modeling of Air Pollution in Poland: Evaluation of EMEP4PL and uEMEP for PM2.5, NO2, and O3

Kinga Areta Wisniewska[1], Małgorzata Werner[1], Bruce R. Denby[2], Qing Mu[3], Maciej Kryza[1]
[1]University of Wrocław; [2]Norwegian Meteorological Institute; [3]Xi'an Jiaotong-Liverpool University

Impacts of urban expansion on meteorology and air quality in North China Plain during wintertime: A case study

Qian Jiang
Institute of earth environment, Chinese Academy of Sciences, China, People's Republic of

Microscale impact assessment of particulate matter emissions from a large steel plant in Taranto (Italy)

Francesca Intini[1], Angela Morabito[1], Annalisa Tanzarella[1], Ilenia Schipa[1], Gianni Tinarelli[2], Daniela Barbero[2], Umberto Giuriato[2], Tiziano Pastore[1], Vincenzo Campanaro[1]
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Preliminary Analysis of Aerosol Size Distribution and Air Mass Origins at Col Margherita

Claudia Rossetti[1], Eleonora Favaro[2], Elena Barbaro[1], Matteo Feltracco[2], Andrea Gambaro[2], Lorenzo Giovannini[3], Giorgio Doglioni[3], Massimo Cassiani[3,4], Marco Di Paolantonio[5], Paolo Di Girolamo[6], Akanksha Rajput[3], Dino Zardi[3], Warren Lee Raymond Cairns[1]
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Investigating drivers of recent reductions in PM2.5 concentrations across the UK

Daniel Bryant[1,2], Alastair Lewis[1,2], Sarah Moller[1,2]
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Characterization of Secondary Organic Aerosols formed in Atmospheric Simulation Chambers and Flow Tube with Liquid Chromatography - High-Resolution Mass Spectrometry

Nicolas Houzel[1], Paul Genevray[1], Fatima Al Ali[1,2], Lingshuo Meng[1,2], Florence Jacob[2], Fabrice Cazier[1], Manolis Romanias[2], Alexandre Tomas[2], Cécile Coeur[1]
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Urban vs. Suburban PM10 Organic Aerosols fingerprints in an Eastern Mediterranean medium-sized coastal city

Evangelos Stergiou[1,2], Anastasia Chrysovalantou Chatziioannou[1], Spiros A. Pergantis[1], Maria Kanakidou[1,2,3]
[1]ECPL, Department of Chemistry, University of Crete; [2]CSTACC, ICE-HT, FORTH; [3]LAMOS, Institute of Environmental Physics, University of Bremen

Suspect and untargeted characterization of total suspended particles collected in Porto Marghera, an industrial site in the Northeast of Italy

Roberta Zangrando[1], Elisa Scalabrin[1], Warren Raymond Lee Cairns[1], Elena Gregoris[1], Marco Roman[2], Andrea Gambaro[2]
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Organic and emerging pollutants in indoor suspended particles hospitals before, during and after SARS-CoV2 pandemic.

Paola Romagnoli, Francesca Vichi, Catia Balducci, Angelo Cecinato
CNR, Italy

Primary emissions and secondary organic aerosol production potential of a large automobile fleet focusing on cold starts at an underground parking facility

Christos Kaltsonoudis[2], Damianos Pavlidis[1,2], Angeliki Matrali[1,2], Christina N. Vasilakopoulou[2], Silas Androulakis[1,2], Christina Christopoulou[1,2], Georgia A. Argyropoulou[1,2], Katerina Seitanidi[2], Yanfang Chen[3], A. S. H. Prevot[3], Spyros N. Pandis[1,2]
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Stability of clusters of highly oxygenated organic molecules from alpha-pinene ozonolysis and sulphuric acid oxidation.

Heikki Junninen[1], Paap Koemets[1,6], Eva Sommer[2], Ruth Konrat[3], Sander Mirme[1,6], Kalju Tamme[1], Paul Winkler[3], Manjula Canagaratna[4], Doug Worsnop[5]
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Chemical aerosol composition of biomass burning emissions exposed to daytime and nighttime oxidation conditions in the EUPHORE chambers

Mila Ródenas[1], Rubén Soler[1], Teresa Vera[1], Balint Alfoldy[2], Asta Gregorič[2,3], Martin Rigler[1], Esther Borrás[1], Eduardo Yubero[4], Javier Crespo[4], Tatiana Gómez[1], Maria L. Martinez[1], Amalia Muñoz[1]

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Aerosol composition, sources, and their relation to meteorology on the highest mountain in southwest Germany

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ATMOMACCS: Predicting atmospheric compound properties.

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

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Cheating the path to new molecular tracers: gas-phase ammonia and organic aerosol-driven reactivity

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Chemical-physical characterization of atmospheric particulate matter collected in the Lecce area (South Italy) by ED-XRF and ATR-FTIR spectroscopy

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Comparative Analysis of Chemical Composition and Oxidative Potential of PM1.0 and PM2.5 in Seosan, Republic of Korea

Chaehyeong Park, Seoyeong Choe, Hajeong Jeon, Dong-Hoon Ko, Myoungki Song, Geun-Hye Yu, Min-Suk Bae
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Composition and sources of organic particles and vapours in an urban location during wintertime

Angeliki Matrali[1,2], Christos Kaltsonoudis[2], Maria Georgopoulou[1,2], Andreas Aktypis[2], Georgia Argyropoulou[1,2], Christina N. Vasilakopoulou[2], Katerina Seitanidi[2], Spyros N. Pandis[1,2]

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Identification of fine particulate matter and Gaseous Pollution Sources Contributing to Oxidative Potential in a National Petrochemical Industrial Complex: Based on the source apportionment Model

Seoyeong Choe, Chaehyeong Park, Hajeong Jeon, Dong-Hoon Ko, Myoungki Song, Geun-Hye Yu, Min-Suk Bae
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Impact of Agricultural Activities on PM2.5 Emissions and Oxidative Potential in Rural Areas of South Korea

Hajeong Jeon, Chaehyeong Park, Seoyeong Choe, Dong-Hoon Ko, Myoungki Song, Geun-Hye Yu, Min-Suk Bae
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Long-Range Transport and Airborne Measurements of VOCs Using Proton-Transfer-Reaction Mass Spectrometry Validated Against GC-MS-Canister Data During the ASIA-AQ Campaign

Dong-Hoo Ko, Sea-Ho Oh, Chaehyeong Park, Seoyeong Choe, Hajeong Jeon, Myoungki Song, Geun-Hye Yu, Min-Suk Bae
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Monitoring of Nitrated Polycyclic Aromatic Hydrocarbons in the Czech Republic

Zdeňka Rohanová, Irina Nikolova, Jiří Kovářík
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Saccharides study in aerosol during wintertime over urban sites in Central Europe and Indo-Gangetic Plain

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The impact of open burning of rice straw on PM concentrations and tracer components in eastern Spain

Nuria Galindo
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Comparison of the evolution of biogenic SOAs under dark aging

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Airborne organic aerosol characterization in the Los Angeles Basin, California, during the AEROMMA 2023 summer campaign

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Long-term monitoring of carbonaceous aerosols in the UK: Insights form national air quality monitoring network

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Nighttime vertical distribution of black and brown carbon from biomass combustion during traditional Burning of the Witches in Central Europe

Saliou Mbengue[1], Petr Vodička[2], Kateřina Komínková[1,3], Jaroslav Schwarz[2], Naděžda Zíková[2], Radek Lhotka[2], Lenka Suchánková[1,2,4], Laurence Windell[2,5], Vlastimil Hanuš[1], Gabriela Vítková[1], Roman Prokeš[1,4], Adéla Holubová Šmejkalová[6], Petra Pokorná[2], Jakub Ondráček[2], Vladimír Ždímal[2]
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Optical and chemical properties of smoke aerosols from peri-urban wildfires in Athens

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Source attribution of carbonaceous fraction of particulate matter in the urban atmosphere based on chemical composition

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Carbon content in PM10 and PM2.5 at a rural background monitoring site in the hinterland of Zadar, Croatia

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Carbonaceous Particles from Gasoline and Diesel Vehicles' Exhaust: Chemical and Isotopic Composition

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Characterization of endocrine disruptors and other organic compounds in gas and particles from outdoor and indoor air in Northern France

Marc Fadel[1], Peggy Desmettres[2], Léa Habib[1], Jean-Pierre El Morr[1], Carine Bail[3], Yann Landkocz[1,3], Dominique Courcot[1], Frédéric Ledoux[1]
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Mass concentrations of carbonaceous species in PM2.5 between seasons at different monitoring sites

Helena Prskalo, Ranka Godec, Valentina Gluščić, Ivona Mikić, Ivan Bešlić
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Multi-Seasonal Chemical Characterization of Organic Aerosols at Gruvebadet Laboratory

Diego Fellin[1,2], Gregory Vandergrift[3], Swarup China[3], Zhenli Joy Lai[3], Nurun Nahar Lata[3], Zezhen Cheng[3], Claudio Mazzoleni[4], Naruki Hiranuma[5], Mauro Mazzola[2], Elena Barbaro[1,2], Andrea Gambaro[1], Stefania Gilardoni[2]

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Physicochemical characterization of soot emissions from combustion of jet fuel blended with pentanol

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Rising Role of Secondary Organic Aerosol Amidst Emission Reductions in North China Plain

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Techniques and measurement methods comparison for determination of the water-soluble fraction of atmospheric particulate matter

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Evaluation of automated online-GC systems for time-resolved continuous measurements of ozone precursor VOCs in laboratory and field application

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Can PM sensors measure PM10? A test method to assess their performance to coarse PM.

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Automatic detection of allergenic pollen grains using the Swisens Poleno Jupiter in 2024–2025 (Poland, Wrocław)

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Characterization of a novel, mid-cost device for ambient monitoring of ultrafine particles

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Comparison of ultrafine particle penetration in inertial and diffusional aerosol spectrometers: Nanocol vs. SDI2001

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An Improved Method for Measuring Cyclone Efficiency

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Improving the accuracy of aerosol concentration measurements of an optical particle counter (UCASS) for balloon soundings

Sina Jost[1], Ralf Weigel[1], Konrad Kandler[2], Luis Valero[1,2], Jessica Girdwood[3,4], Chris Stopford[3], Warren Stanley[3], Luca Katharina Eichhorn[1], Christian von Glahn[1], Holger Tost[1]

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Systematic Investigation of CPC Counting Efficiency for Three Alternative Working Fluids and Five Particle Seed Materials Cut-Offs at 10 nm and 23 nm

Victoria Fruhmann, Martin Kupper, Helmut Krasa, Alexander Bergmann

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Atomically precise determination of cluster structures

Yaochen Han, Shirong Liu, Jicheng Feng
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Improving the time resolution of a size scanning Particle Size Magnifier

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Measurement of number concentration of nanoparticles in suspension using ES-DMA technique

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Glassy nano-aerosol phase state and viscosity analysis using improved dual tandem differential mobility analyzer technique

Harsh Raj Mishra, Robert Groth, Branka Miljevic, Zoran Ristovski
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How to quantify the uncertainty of the dilution factor of diluters with internal mixing gas preparation?

Lars Hillemann, Annett Mütze, Daniel Göhler, Stephan Gabsch, Stephan Große
Topas GmbH, Germany

Spectral aerosol light absorption measurements with a self-calibrated photothermal interferometer

Alireza Moallemi, Timothy Andrew Sipkens, Daniel Poitras, Jalal Norooz Oliaee, Joel Christopher Corbin
National Research Council Canada

The Fluidizer - a newly standardized method for dustiness determination

Carla Ribalta[1], Anna Pohl[1], Spyros Bezantakos[2], Daniela Wenzlaff[1], Kathleen De Maeyer[3], Bart De Vos[3], Kai-Helge Schäfer[4], Dirk Broßell[1], Elisabeth Heunisch[1], Thomas A.J. Kuhlbusch[1]
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Use of a Particle-on-Slide Model for the Collection of Scattered Light, and Application to Multiphase Aerosols in Time-Dependent Systems

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Expanded Polytetrafluoroethylene Membrane-Based Humidification System for Aerosol Light Scattering Measurements

Cade Tischer, Jonathan Linderich, James Sherman, Patrick Richardson
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The VERT GPF-Retrofit Program for Cleaner Urban Mobility within the HORIZON Europe AeroSolfd Project

Lauretta Rubino, Andreas Mayer, Thomas Lutz, Jan Czerwinski, Lars Larsen
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Aerodyne Aerosol Mass Spectrometer collection efficiency measurements of smoke from laboratory burns of wildland fuels

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Intercomparison of online and offline XRF spectrometers for determining the elemental composition of PM10 at an urban site in Milan

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Measuring NaCl with the CV-ToF-ACSM

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Application of ToF-ACSM for Characterizing NR-PM1 chemical Composition at CIAO observatory in Southern Italy

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One filter at a time: development of a novel analysis workflow

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Maximizing the output from filter sample analysis: Evolved gas analysis from thermal-optical carbon analysis (TOCA) using photoionization mass spectrometry (PIMS)

Sven Ehlert[1], Hendryk Czech[2,3], Marco Schmidt[2], Patrick Martens[4], Martin Rigler[5], Andreas Walte[1], Ralf Zimermann[2,3]
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High-resolution temporal and size-resolved analysis of atmospheric particulate matter using OPC: source apportionment

Alessandra Nocioni[1], Roberto Primerano[1], Pietro Caprioli[1], Aldo Pinto[1], Vincenzo Campanaro[1], Martino Giannuzzi[2], Antonio Fornaro[2]
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A new experimental Bench for Respiratory Droplet Analysis Under Varying Hygrothermal Conditions: Design and Characterization

Lyes Ait Ali Yahia, Evelyne Géhin, Thibault Perin, Cheikhouna Fall, Bilel Rahmouni
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Generation of aged bioaerosols in the laboratory for training machine-learning algorithms of automatic bioaerosol monitors

Tianyu Cen[1], Stefan Horrender[1], Nicolas Bruffaerts[2], Elizabet D'hooge[2], Astha Tiwari[2], Christina Giannakoudaki[1], Benoit Crouzy[3], Elias Graf[4], Konstantina Vasilatou[1]
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Quantifying the Impact of Environmental Conditions and Biological Data Variability on the Robustness of Deep Learning-Based Pollen Classification Models

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Bioaerosol and ChAMBRe: methodologies to study the bacterial viability in different atmospheric conditions

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Effects on viability, culturability and cell fragmentation of two bioaerosol generators during E. coli bacteria aerosolization

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In situ characterization of adsorbates on aerosol nano-aggregates

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Selective detection of aerosolised respiratory droplets in ambient air

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Development of an online instrument for measuring the oxidative potential of atmospheric particulate matter with two complementary assays.

Albane Barbero[1], Guilhem Freche[1], Luc Piard[1], Lucile Richard[1], Takoua Mhadhbi[1], Anouk Marsal[1], Julie Camman[1,2], Mathilde Brezins[1,2], Benjamin Golly[3], Jean-Luc Jaffrezo[1], Gaëlle Uzu[1]
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Developing an RH-based correction for a PM2.5 low-cost sensor network

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From the EU metrology projects AEROMET I & II to the HE project MI-TRAP – Reliable chemical aerosol analysis by X-ray spectrometry without calibration samples

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The Spectroscopic Multiparameter Particle Analyzer

Darrel Baumgardner
Droplet Measurement Technologies, United States of America

WALL-E: A New Wall-Free Particle Evaporator for Real-Time Online Particle Composition Measurements

Imad Zgheib[1,2], Linyu Gao[2], Cecilie Carstens[2], Frederic Bourgain[2], Michel Dupanloup[2], Felipe Lopez-Hilfiker[1], Sebastien Perrier[2], Matthieu Riva[1,2]
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A New Ground-Based Spectrometer for Improved Microphysical Characterization of Aerosols and Clouds

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Fine Particulate Matter (PM) Atmospheric Pollution : Monitoring Air Quality Using Plane Tree Barks as Bio-Monitors

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High temporal frequency and online aerosol characterization for source apportionment evaluations. An application to a mixed urban and industrial hotspot.

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Investigation of DMSO-H2O mixture as working fluid for Condensation Particle Counters

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Optimizing UAV methodology with a low-cost sensing system for air quality monitoring in diverse environmental settings

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Single particle polarization measurement for aerosol characterization and classification

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Implementation of a sensor network for the detection of airborne pollutants in a medium-sized city (In the context of the MAMELI project)

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A novel approach for the determination of Total Carbon, Organic Carbon, and Elemental Carbon with Aerosol Magee Scientific Carbonaceous Aerosol Speciation System CASS

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Environmental and Procedural Influences on PM Filter Weighing Accuracy in a Robotic System

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

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On the use of low-cost PM sensors for controlling ventilation system of production facilities on demand

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Understanding Indoor Air Quality Under Various Ventilation Strategies Using Low-Cost Sensors in a Future Home

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Assessing Air Pollution in Irish Towns using a Low-Cost Sensor Network

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Low cost sensors network for PM and NO2 urban monitoring: initial and ongoing calibration and management

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A Source Specific Calibration of Low-Cost Air Quality Sensors Using Machine Learning and Emission Inventories: A Case Study in Fianarantsoa, Madagascar

Rajat Sharma, Erwann Rayssac, Andry Razakamanantsoa, Agnès Jullien
University Gustave Eiffel, France

Aerosol monitoring on commercial ships and private sailing boats

Laura Köhler, Lena Pünter, Andreas Herber
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Evaluating the performance of AE51 and MA200 micro-aethalometers during bicycle-mounted field deployment in city streets

Valeria Paola Mardoñez Balderrama[1], Laura Renzi[1], Luca Boniardi[2], Marco Zanatta[1], Alessandro Bigi[3], Ferdinando Pasqualini[1], Cristina Colombi[4], Angela Marinoni[1]
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Evaluating the performance of the low-cost black carbon sensor bcMeter at an urban background site

Andrea Doldi[1], Luca Pagliarulo[1], Ezio Bolzacchini[1], Luca Ferrero[1], Steffen Freitag[2], Lena Große Schute[2], Klara Junk[2], Ana Maria Todea[3], Christof Asbach[3]
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Machine Learning-Driven PM2.5 Mapping and Hotspot Analysis Using a Large-Scale Low-Cost Sensor Network in Bihar, India

Vaishali Jain, Malay Pandey, Piyush Rai, Sachchida Nand Tripathi
Indian Institute of Technology Kanpur, India

Miniaturized and Cost-Effective Electrochemical Sensors for Environmental Monitoring Using Additive Manufacturing

Abhishek Raj, Ankit Sahai, Rahul Swarup Sharma
Dayalbagh Educational Institute, India

Air mass trajectory-based monitoring network for off-line atmospheric aerosol sampling

Radim Seibert, Daniel Hladký, Vladimíra Volná, Blanka Krejčí
Czech Hydrometeorological Institute, Czech Republic

Air quality PM sensors performances compared to conventional measurement techniques

Francesca Vichi, Catia Balducci, Cristiana Bassani, Giulio Esposito, Antonietta Ianniello, Andrea Imperiali, Mauro Montagnoli, Mattia Perilli, Paola Romagnoli, Valerio Paolini
Consiglio Nazionale delle Ricerche - Istituto sull'Inquinamento Atmosferico (CNR-IIA), Italy

Feasibility study of a low-cost miniaturised Bio-OPC for biologically relevant fluorescent particle detection

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Occupational exposure assessment using miniaturized aerosol instruments in different workplace environments

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Selective detection of NO2 at ppb concentration with small Cu3N-based sensor

Adrien Baut, Michael Pereira Martins, Andreas Thomas Güntner
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Using low-cost sensors for assessing human exposure and dose

Maria Triantafillaki[1], Sofia Eirini Chatoutsidou[1], Theodosios Kassandros[2], Stavros Cheristanidis[3,4], Serafim Kontos[3,4], Evangelos Bagkis[2], Kostas Karatzas[2], Dimitrios Melas[4], Mihalis Lazaridis[1]
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Comparison of online (Xact) and offline (ICP-MS) measurements for trace elements in particulate matter across the EU

Petra Makorič[1], Kristina Glojek[1,2], Andres Alastuey[2], Xavier Querol[2], Andre Prevot[3], Enis Omerčić[4], Enis Krečinić[4], Damir Smajić[4], Almir Bijedić[4], Ismira Ahmović[4], Ranka Godec[6], Gordana Pehnec[6], Jean-Luc Jaffrezo[5], Gaelle Uzu[5], Sophie Darfeuil[5], Iain Rober White[1], Katja Džepina[1,3], Griša Močnik[1]
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Aerosol monitoring using different measurement platforms – bicycle, tram, tethered balloon, drone, low-cost sensors

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Characterization of Photoacoustic Sensors for the Measurement of Soot at Different EC/OC contents and Black Carbon in Comparison to an Aethalometer

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INITIAL MEASUREMENTS OF ATMOSPHERIC AEROSOL SIZE DISTRIBUTIONS FOR TRAINING A MACHINE LEARNING MODEL TO PREDICT AEROSOL LIQUID WATER AND CLOUD CONDENSATION NUCLEI

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Large-scale Saharan dust episode in March-April 2024: study of desert aerosol loads over Potenza, southern Italy, using remote sensing and in-situ measurements

Teresa Laurita, Caterina Mapelli, Benedetto De Rosa, Francesco Cardellicchio, Michail Mytilinaios, Emilio Lapenna, Davide Amodio, Aldo Giunta, Canio Colangelo, Serena Trippetta, Nikolaos Papagiannopoulos, Aldo Amodeo, Lucia Mona
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Ultra-high resolution identification methods of organosulfates in atmospheric nanoparticles from the CERN CLOUD chamber experiments

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A selective electrochemical sensor for determination of H2O2 in atmospheric samples

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Comparative Study of Aerosol Optical/Chemical Characteristics by ChAMBRe and field Campaigns.

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Comparison of different bioaerosol sampling techniques for qualitative analysis of poultry house microbiota using next generation sequencing (NGS)

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Ensuring the worldwide equivalence of measurements of nanoparticle number concentration and charge concentration: an international comparison

Andrew Brown[1], Andreas Nowak[2], Jordan Tompkins[1], Mamatha Tomson[1], Anza Waheed[2], David Godau[2], Jinsang Jung[3], Hyeongrae Kim[3], Kevin Auderset[4], Konstantina Vasilatou[4], Junjie Liu[5], Yue Liu[5], Thomas Wu[6], Lemuel Kuehsamy[7], Hiromu Sakurai[7], Yoshiko Murashima[7], Timothy Sipkens[8], Holger Gerwig[9], Wilma Travnicek[9], Sabrina Unglert[9], Kay Weinhold[10], Maik Merkel[10], Ali Wiedensohler[10]

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High-resolution mapping of urban ultrafine particle (UFP) and CO2 fluxes

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Field intercomparison of absorption measurements at the suburban Demokritos station in Athens

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Emissions of cooking stoves and indoor air pollution levels

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Mass concentration intercomparison of soot generated with Mini-Cast

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Real-time quantification of refractory brown-carbon “tarballs” using SP2

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QUANTIFICATION OF PURE LEVOGLUCOSAN AND PHOTOOXIDIZED LEVOGLUCOSAN AEROSOL BY AEROSOL MASS SPECTROMETRY

Liqing Hao, Aki Nissinen, Angela Buchholz, Siegfried Schobesberger, Annele Virtanen

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High-Resolution Air Quality Surveillance and Emission Source Tracking with Scanning LiDAR

Seong-min Kim[1], Kwanchul Kim[1], Gahye Lee[1], Jeong-min Park[1], Sea-ho Oh[1], Min-kyung Sung[1], Sung-Jo Kim[1], Sangcheol Kim[2], Kyoungho Kim[3], Youndae Jung[3], Ilkwon Yang[3], Byung-Jin Choi[3], Sungchul Choi[4], Changgi Choi[4]

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Long-time-series of high-time resolution carbonaceous aerosol measurements with different in-situ measurement techniques vs. offline analysis at two background monitoring sites in Germany.

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Understanding the Generation and Removal of Primary Particulate Matter: Insights from Diesel, Oil, and Metal Emissions

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Aerosol Particle Classification using Single-Particle Mass Spectrometry and Deep Learning for the Detection of Ship Emissions

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Revised IMPROVE-A OC/EC Protocol Permits Gas/Diesel Analyses

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Online Oxidative Potential Measurements of Soluble and Insoluble Particulate Matter

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Catalytic stripper with plate Electrostatic Aerosol Classifier for reducing thermophoretic loss

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Initial results from the first long term integrated study of aerosol liquid water content and cloud condensation nuclei in the southeastern U.S.

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Electric system's insulators: a two-year Italian study on saline pollution

Mattia Borelli[1], Giorgio Santucci de Magistris[2], Claudia Schianchi Betti[2], Chiara Andrea Lombardi[1], Andrea Bergomi[1], Paola Fermo[1], Anna Maria Toppetti[3], Lucio Fialdini[3], Paolo Omodeo[3], Alessandra Balzarini[3], Irene Gini[3], Guido Pirovano[3]
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LuMUB Project: A Decentralized Approach to Air Quality Monitoring through Ultrafine Particle Sensing and Blockchain Technology

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Assessing the impact of urban greenspaces on PM2.5 spatiotemporal variability in Riga, Latvia, via citizen science and low-cost sensors

Maria Kimourtzi[1], Georgios Grivas[1], Charalambos Chatzidiakos[1], Nora Gāgane[2], Sabīne Skudra[2], Aija Zučika[2], Gerid Hager[3], Todd Harwell[3], Inian Moorthy[3], Evangelos Gerasopoulos[1]
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Improved Aerosol Eddy Covariance Fluxes using the ELPI+ (Electrical Low-Pressure Impactor): Preliminary Road Traffic and Sea-Spray Emission Fluxes

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Scattering of light with orbital angular momentum from singly trapped spherical particles

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Synergies between ACTRIS and ICOS: combination of aerosol and GHS's first campaign measurements for the characterization of atmospheric composition at CIAO observatory in Tito, Potenza, Southern Italy

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Two Motion-Correction Approaches for Turbulent Particle Flux Measurements from a Moving Vessel in the Arctic

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Update of the Walking in Chamber of the Polytechnic University of Catalonia for ad hoc Aerosols studies

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From Reference Materials to Real Filters: Mapping Water Content in PM Using KF Titration

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Integrated study of $\delta^{13}C\text{-}CH_4$ and $\delta^{13}C\text{-}CO2$ signatures and aerosol properties as tracers of Wildfire Events: Insights from the ACTRIS-ICOS CIAO Observatory

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Global calibration as a possible alternative to conventional collocation calibration strategy for air quality low-cost sensor networks: Review and experience from long-term deployments

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Challenges in interpreting black carbon data from national air quality monitoring in the UK

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Fast analysis tool for temporal aerosol particle size and fluorescence response data tested with indoor measurements at EAC 2024 in Tampere

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Urban Air Quality Monitoring: Measurement Campaigns and Key Findings

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An open toolkit for particle size distribution analysis

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Optical Properties of Black Carbon Aerosols and Their Climate Implications in Guadalajara, Jalisco

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Annual variations and long-term air quality trends in a low-pollution, northern city

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Chemical, Physical and Microbial Characteristics of PM10 and PM2.5 in Urban Region of India

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Developing an emissions inventory for metallic aerosols in London, UK

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Simulation and sampling of human respiratory emission in a laboratory environment

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

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Assessing Influenza A Virus Aerostability: Insights from a Novel Bioaerosol Technology

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Predicting the pulmonary toxicity induced by repeated exposures to a mixture of alumina nanoparticles and HClg using in vitro air-liquid interface exposures

Maëva Cherriere[1,2], Myriam Oger[3], Suzanne De Araujo[2], Anne-Laure Favier[3], Maxime Floreani[1], Anthony Lecomte[1], Franck Robidel[1], Stéphanie Rodrigues[1], Guillaume Barbier[1], Sabine François[4], Samir Dekali[2], Ghislaine Lacroix[1], Thomas Loret[1]
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Increased PM Levels Enhance Minimum Leaf Conductance and Modify Transpiration Dynamics Through Stomatal Density Adjustments

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Inhaled Vitamin D as a Protectant Against Ozone-Induced Pathological Responses

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Drosophila melanogaster as a bioindicator of PM-induced oxidative stress effects

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Alveolar in vitro model at air-liquid-interface

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In vitro dioxin- and PAH-like activities of particulate residential wood burning emissions: influence of appliances, combustion conditions and fuel composition

Ali HNAINO[1,2], Abd El Rahman EL MAIS[1], Serge COLLET[1], Ahmad EL-MASRI[1], Vincent FUVEL[1], Jason BARDOU[1], Adrien DERMIGNY[1], Selim AIT-AISSA[1], Francois BRION[1], Barbara DANNA[2], Alexandre ALBINET[1]
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Oxidative Potential of PM1, PM2.5, and PM10 in Car and Tram Tunnels: Evaluating Public Health Risks

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Oxidative potential of urban aerosol and related elements in three simulated lung fluids

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Association between particle-bound reactive oxygen species and in-vitro oxidative responses induced by traffic-related urban nanoparticles

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Anti-oxidant and anti-inflammatory properties of nanoalgosomes in a co-culture of airway bronchial cells and macrophages at the Air-Liquid Interface

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Ex-Vivo Respiratory Pharmacokinetics Model for Inhaled Therapies Using Negative Pressure Ventilation and Perfusion: A Proof-of-Concept

Juan Pablo Vasco Marin[1], Lara Leclerc[1], Nicolas Curt[1], Nathalie Prevot[1,2], Edouard Sage[3,4], Sophie Perinel[1,2], Jérémie Pourchez[1]

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Assessment of Polycyclic Aromatic Hydrocarbon concentrations and Black carbon levels in primary schools and residences in urban and rural Barcelona

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PM10 chemical profiling of vehicles emissions in a Lisbon road tunnel (Portugal)

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Study in the atmospheric simulation chamber CHARME of the reactivity of monoterpenes first-generation oxidation products: Implications on air quality and climate

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Investigation of the Internal Flow Dynamics of Conical Diffuser Chambers

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Chemical analysis of limonene secondary organic aerosols under high reactive nitrogen conditions for varying humidities

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Unraveling 2,5-Dimethylfuran Autoxidation by Ozone and OH radical: Experimental Insights from MION Orbitrap Mass Spectrometry

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Peroxy radical and oxidation product formation in monoterpene oxidation by nitrate radicals: insights from free-jet flowtube experiments

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Photochemical degradation of gaseous naphthalene/benzene and secondary organic aerosol formation for typical atmospheric conditions

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Current chemical ionization mass spectrometry (CIMS) techniques for measuring early generation peroxy radicals from monoterpene ozonolysis are prone to mischaracterization due to an artifact

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Computational study on HOM formation from 2,5-Dimethylfuran oxidation initiated by ozone and OH radical

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Theoretical Investigation of the Reactivity of Organosulfates with OH Radical

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The Atmospheric Autoxidation of Mesitylene

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The Atmospheric Autoxidation Process of Pseudocumene

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Predictions of homogeneous nucleation rate in laminar and turbulent flows

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Microbial Ice Nucleation in Polar and Atmospheric Environments: Insights from Antarctic Precipitation and Metagenomic Datasets

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A DLCA methodology for simulating Brownian agglomeration of nanowire aerosols

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Single-droplet techniques for analysis of evaporation kinetics and particle morphology in spray dryers

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Controlling the Morphology of Microparticles Formed by Evaporation of Aerosol Droplets Containing Polymer Nanoparticles

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Roles of Mucin and Albumin in Exhaled Respiratory Droplet Evaporation and Rehydration: Implications for Airborne Disease Transmission

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New cleaning model to predict the removal efficiency of 10-130 nm contaminant particles on Si wafers using microdroplet impaction

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Sea spray aerosol emissions (1940-2023) subject to climate change: trends and variation, based on new source parameterizations, the cases of the North Sea and the Baltic Sea

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Stiff kinetics parameter estimation using neural ordinary differential equation and collocation training

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Evaluating Collection Efficiency of a Membrane-based Sampler for Environmental DNA and Bacillus globigii Spores

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Development of a particle categorization for the broad representation of atmospheric measurement data with the SwisensPoleno Jupiter

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