



Handbook

EAC 2013, PRAGUE



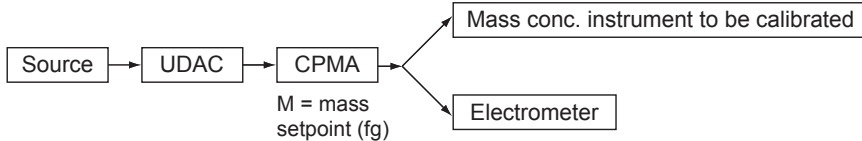
EAC 2013 PRAGUE
European Aerosol Conference
1-6 September 2013



Centrifugal Particle Mass Analyzer

Classifies aerosol particles by their mass: charge ratio.

Forms an aerosol mass standard, (when combined with a unipolar charger and aerosol electrometer):



$$m_{\text{total}} = \text{mass setpoint} \times \text{indicated electrometer concentration} + \text{zero charge correction}$$

(Symonds et al., Aerosol Science and Technology 47:8 i-iv)

Unipolar Diffusion Aerosol Charger

Places a high level of charge on aerosol particles.

Use in mass standard above.



Electrostatic Precipitator

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AAAR - booth #204
EAC booth #14

Welcome to Prague

The 2013 European Aerosol Conference (EAC 2013) will be held in the historical city of Prague, Czech Republic, during the period of 1st-6th September 2013 under the auspices of the European Aerosol Assembly (EAA), a body that now represents 12 national or regional aerosol societies. In the past, the European Aerosol Conference was organized in Prague under the umbrella of the Gesellschaft für Aerosolforschung in 1999 when the Czech Aerosol Society was established. During the EAC 2013 the Czech Aerosol Society will celebrate its 14th anniversary and the 11th year of membership in the European Aerosol Assembly. It is a pleasure and honour for the Czech Aerosol Society to organize such important meeting of scientists from all over the world.

Patronage

The conference will be held under the auspices of:

Prof. Jiří Drahoš

President of The Academy of Sciences of the Czech Republic



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OF SCIENCES
OF THE CZECH
REPUBLIC

Prof. Václav Hampel

Rector, Charles University in Prague, Czech Republic





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Maps

Conference Venue

Clarion Congress Hotel Prague

Clarion Congress Hotel Prague representing a four-star comfort hotel with modern congress center is easily accessible by all means of transport - the Old Town can be reached within 10 minutes.



A. CLARION CONGRESS HOTEL PRAGUE



CLARION CONGRESS HOTEL PRAGUE

Social Programme Venue

Concert

Bethlehem Chapel / Betlémská kaple
Betlémské náměstí 255/4, 110 00 Prague 1

Take metro line B (yellow) from station “Vysočanská” to station “Můstek” (7 stops). The journey takes approximately 12 minutes.



A. CLARION CONGRESS HOTEL PRAGUE

B. BETHLEHEM CHAPEL

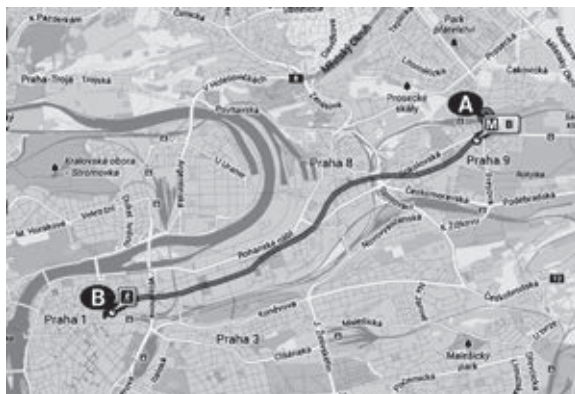


The Bethlehem Chapel is located about 500 meters from the “Můstek” metro station.

Conference Dinner

Municipal House / Obecní dům
Náměstí Republiky 1090/5, 110 00 Prague 1

Take metro line B (yellow) from station “Vysočanská” to station “Náměstí Republiky” (6 stops). The journey takes approximately 10 minutes.



A. CLARION CONGRESS HOTEL PRAGUE
 B. BETHLEHEM CHAPEL



The Municipal House is located about 100 metres from the “Náměstí Republiky” metro station.



Committees

Organising Committee

- Martin Braniš (chair)
- Pavel Moravec
- Ludmila Mašková
- Pavel Mikuška
- Jakub Ondráček
- Naděžda Slezáčková Zíková
- Petr Vodička

Programme Committee

- Jiří Smolík (chair)
- Vladimír Havránek
- Zdeněk Kožíšek
- Jaroslav Schwarz
- Zbyněk Večeřa
- Vladimír Ždímal

International Advisory Committee

- Lucas Alados Arboledas
- Christoph Asbach
- Ari Asmi
- George Biskos
- Andrei Bologa
- David Broday
- Jeroen Buters
- Ian Colbeck
- Aladar Czitrovsky
- Yannis Drossinos
- Ian Ford
- Martin Gysel
- Regina Hitzemberger
- Yoshi Inuma
- Martina Krämer
- Mihalīs Lazaridis
- Willy Maenhaut
- Francois-Xavier Ouf
- Manabu Shiraiwa
- Olli Sippula
- Wendelin Stark
- Birgit Wehner
- Sabine Wurtzer
- Caner Yurteri

The European Aerosol Assembly

The European Aerosol Assembly (EAA) is the organisation which has the responsibility to plan for the future hosting of European Aerosol Conferences, as well as to promote the development of the field of aerosol science through its working groups. It consists of 12 national or regional societies across Europe, though membership of these societies is not limited to European nationals, and operates under a formal constitution. The major activity of the EAA and its working groups takes place at the European Aerosol Conference, held in three out of every four years (the missing year being that in which the International Aerosol Conference, an event designed to foster links between research communities in all regions of the world, is held).

The Czech Aerosol Society

The Czech Aerosol Society (CAS) was formed in 1999 from the former Working Group on Aerosol Research of the Czech Society of Chemical Engineering at the occasion of the European Aerosol Conference held in Prague in 1999. As given in its constitution the Society maintains a forum of researchers from various Czech Institutions and Universities in order to:

- **promote collaboration in all areas of aerosol research**
- **promote by means of meetings and publications the spread of information between the members and the public**
- **support education in aerosol related fields at all levels**
- **support international co-operation**



czech aerosol society

General Information

Conference Venue

The European Aerosol Conference 2013 is held at the Clarion Congress Hotel Prague represents a four-star comfort hotel with modern congress center and is easily accessible by all means of transport - the Old Town can be reached within 10 minutes.

Transport to the Conference Venue

By taxi

AAA Radiotaxi	+420 222 333 222, +420 729 331 133
CITY taxi	+ 420 257 257 257
Taxi PRAHA	+ 420 222 111 000

The maximum prices for taxi services in the district of the capital city of Prague:

Ride in the district of the capital city of Prague	28,- CZK/km
Boarding fee	40,- CZK
Waiting time	6,- CZK/min

A typical taxi fares:

From the Conference Venue to the city centre	10-15 EUR
From the Conference Venue to the Prague airport	25-30 EUR

By metro

Clarion Congress Hotel is located next door to Vysočanská metro station (yellow line B).

Basic ticket (ticket is valid for 90 minutes after validation)	32,- CZK
Short-term ticket (ticket is valid for 30 minutes after validation)	24,- CZK
1 day (24 hrs) ticket	110,- CZK
3 days (72 hrs) ticket	310,- CZK

Each fully registered participant will obtain FREE PASS FOR PRAGUE PUBLIC TRANSPORTATION valid for the period of September 1 – 6, 2013 together with registration materials at the registration desk.

Name Badges

Upon registration you will receive a name badge which should be worn at all conference sessions including social events.

Lunch, Coffee, Tea and Snacks

Coffee breaks will be served in the foyer of conference rooms (incl. in the registration fee). Lunches will be served in the hotel restaurant (tickets available at the registration desk). There are several other restaurants at the food court of the adjacent shopping mall Phoenix.

Internet

A Wi-Fi internet connection is available throughout the conference rooms.

Currency

The official currency of the Czech Republic is the Czech Crown = Česká koruna (CZK = Kč). Exchange of foreign currency is available at Prague international Airport and at most hotels, banks and exchange offices throughout the city. International credit cards are accepted for payments in hotels, restaurants and shops. Payment in cash in EUR is also available in some restaurants and shops, please ask for details on-site.

Drinking Water

Tap water is of good quality and can be consumed safely throughout the city. Bottled mineral and spring water is available in shops and restaurants.

Conference Information

Registration desk

Registration and information desk will be open at the conference floor of the Clarion Congress Hotel Prague as follows:

Sunday September 1	10:00-21:00
Monday September 2	08:00-18:00
Tuesday September 3	08:30-18:00
Wednesday September 4	08:30-13:30
Thursday September 5	08:30-17:00
Friday September 6	08:30-14:00

Contact details

Emergency number to the registration desk	+420 606 918 277
Email:	eac2013@cbttravel.cz

Exhibition

The exhibition is situated in the congress foyer of the Clarion Congress hotel, close to all meeting activities such as scientific sessions, poster exhibition, registration and coffee breaks and will be open to all participants throughout the duration of the conference.

Social Programme

Welcome Reception

Included in the registration fee.

Date: Sunday, September 1
Venue: Foyer of the Clarion Congress hotel
Time: 19:00

Concert

Included in the registration fee.

Date: Monday, September 2
Venue: Bethlehem Chapel / Betlémská kaple
Address: Betlémské náměstí 255/4, 110 00 Prague 1
Time: 19:00

Bethlehem Chapel is located in the heart of Prague, the Old Town district. It was built as a holy place where sermons could be held in Czech. Jan Hus - university professor and Czech religious reformer - preached there between 1402 and 1413. As he was also the Rector of Charles University, it is believed that the Chapel was linked to this institution.

Conference Dinner

Date: Thursday, September 5, 2013
Venue: Municipal House / Obecní dům
Address: Náměstí Republiky 1090/5, 110 00 Prague 1
Time: 19:30
Price: 70€ per person (tickets available at the registration desk)

The dinner will be served in a buffet style.

The Municipal House, a national cultural landmark, is among the most significant Art Nouveau buildings in Prague. It is located in the very centre of Prague, directly neighbouring the Powder Gate.

The most significant Czech painters and sculptors of the time participated in the decoration of the Municipal House. That list included: Jan Preisler, Mikoláš Aleš, Max Švabinský, František Ženíšek, Ladislav Šaloun, Josef Mařatka, Josef Václav Myslbek, Alfons Mucha.

Meetings

Monday, September 2nd

12:50-14:00	GAeF Board Meeting
18:00	Elsevier Board Meeting

Tuesday, September 3rd

12:50-14:00	IARA Meeting
18:00	GAeF General Assembly Meeting
18:00	Working Group Meetings

Wednesday, September 4th

12:50-14:00	EAA Board Meeting
afternoon	HEXACOMM
13:00-18:00	ACTRIS ACSM/AMS meeting

Thursday, September 5th

12:50-14:00	EAA Working Group Chairs Meeting
-------------	----------------------------------

Friday, September 6th

13:00-18:00	ACTRIS ACSM/AMS meeting
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EAA Working Group Meetings

The purpose of these meetings is to discuss general matters within the various topic areas to help plan future events, particularly the next EAC. All delegates are welcome.

Tuesday, September 3rd, 18:00, the following groups will meet at the Meridian Hall.

- WG 1 Aerosol-based Nanotechnology**
- WG 2 Aerosol Chemistry**
- WG 3 Aerosol Modelling**
- WG 4 Atmospheric Aerosols - Aerosol Processes and Properties**
- WG 5 Atmospheric Aerosols - Specific Aerosol Types**
- WG 6 Electrical Effects**
- WG 7 Fundamentals**
- WG 8 Combustion Aerosols**
- WG 9 Indoor and Working Place Aerosols**
- WG 10 Instrumentation**
- WG 11 Particle-Lung Interactions**
- WG 12 PM_x**

Assembly

GAeF General Assembly will meet on Tuesday, September 3rd, 18:00, at the Aquarius & Taurus Hall.

Presentation Information

Abstracts

All abstracts will be published in electronic form and distributed to participants on USB memory key.

Instructions for Oral Presentations

Every speaker is entitled to speak for 20 minutes, including questions and answers. Due to the very tight schedule, we kindly ask that you respect these time limitations.

How to upload your oral presentation

All presentations should be brought to the Speaker's Preview Room /QUADRANT/ any time during the official hours but at the least 2 hours before the section starts (or the day prior when your session is scheduled in the morning) or in the conference room one hour before your presentation.

A qualified technician will help you to upload your presentation to our system. Please use the USB key or CD / DVD-Rom. Speaker Preview Room opening times are the same as operating times of the registration desk.

Speaker's Preview Room opening times:

Sunday, September 1	10:00-21:00
Monday, September 2	08:00-18:00
Tuesday, September 3	08:30-18:00
Wednesday, September 4	08:30-18:00
Thursday, September 5	08:30-17:00
Friday, September 6	08:30-14:00

Instructions for oral reserve presentations

Oral reserve presentations are poster presentations that will also be offered a slot for oral presentation should a vacancy become available. Presenters should check with chairs at the start of the relevant oral session.

Poster Sessions Schedule

Posters will be located at the hall Zenit and Nadir. Participants are kindly asked to display and also take down their poster according to this poster session schedule. For those who will not take down their poster on time please come to Quadrant room where they will be kept for you during the time of the conference. Presenting authors are kindly asked to be available to present their posters during the poster sessions time schedule.

Poster Session A:

Atmospheric Aerosols

Days:	Sunday, September 1 - Monday, September 2
Time to display:	Sunday evening
Time to uncover:	Monday evening
Presentation time:	Monday, 16:00-18:00

Poster Session B:

Aerosol Chemistry, Aerosol Modelling, Aerosol-based Nanotechnology, Combustion Aerosols

Days:	Tuesday, September 3 - Wednesday, September 4
Time to display:	Tuesday morning
Time to uncover:	Wednesday evening
Presentation time:	Tuesday, 16:00-18:00

Poster Session C

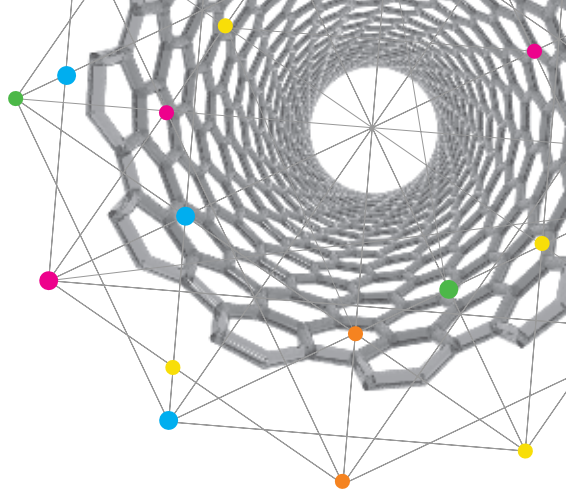
Electrical Effects, Fundamentals, Indoor Working Place Aerosols, Instrumentation, Particle-Lung Interactions, PMx

Days:	Thursday, September 5 - Friday, September 6
Time to display:	Thursday morning
Time to uncover:	Friday up to 12 o'clock
Presentation time:	Thursday, 16:00 - 18:00

Late Posters

Late posters will be displayed according to their topics and will be located at the poster area (room Zenit and Nadir) as per poster sessions schedule.

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Programme Overview

Sunday, September 1st

10:00-21:00	Registration
19:00	Welcome Reception, Exhibition Opening

Monday, September 2nd

8:00-18:00	Registration					
8:45-9:00	Opening Ceremony, A (Meridian)					
9:00-10:00	Plenary lecture: Merete Bilde - Aerosol particles in the marine environment, A (Meridian)					
10:00-10:30	Coffee break					
	A (Meridian)	B (Leo + Virgo)	C (Aquarius + Taurus)	D (Kepler)	E (Tycho)	F (Stella)
10:30-12:50	Atmospheric Aerosols	Atmospheric Aerosols	PMx (Special session)	Aerosol Chemistry	Indoor and Working Place Aerosols	Instrumentation
12:50-14:00	Lunch, GAeF Board Meeting					
14:00-16:00	Aerosol Modelling	Instrumentation	Combustion Aerosols	PMx	Aerosol Chemistry (Special Session)	Aerosol-based Nanotechnology
16:00-16:30	Coffee break					
16:00-18:00	Poster Session A - Authors' Presentations					
18:00	Elsevier Board Meeting					
19:00	Concert					

Tuesday, September 3rd

8:30-18:00	Registration					
9:00-10:00	Plenary lecture: Ruprecht Jaenicke - Primary Biological Atmospheric Aerosols, A (Meridian)					
10:00-10:30	Coffee break					
	A (Meridian)	B (Leo + Virgo)	C (Aquarius + Taurus)	D (Kepler)	E (Tycho)	F (Stella)
10:30-12:50	Atmospheric aerosols	Atmospheric aerosols	Aerosols chemistry	Indoor and Working Place Aerosols	Instrumentation	PMx (Special session)
12:50-14:00	Lunch, IARA Meeting					
14:00-16:00	Atmospheric aerosols	Aerosol modelling	Combustion Aerosols	PMx	Aerosol-based Nanotechnology	—
16:00-16:30	Coffee break					
16:00-18:00	Poster Session B - Authors' Presentations					
18:00	Working Group Meetings, GAeF General Assembly Meeting					

Wednesday, September 4th

8:30-13:30	Registration					
8:45-9:45	Plenary lecture: Lidia Morawska - The Dynamics of Indoor Aerosol: what is important, where, when and why?, A (Meridian)					
9:45-10:00	Smoluchowski Award, A (Meridian)					
10:00-10:30	Coffee break					
	A (Meridian)	B (Leo + Virgo)	C (Aquarius + Taurus)	D (Kepler)	E (Tycho)	F (Stella)
10:30-12:50	Atmospheric aerosols	Atmospheric aerosols	Aerosol modelling	Indoor and Working Place Aerosols	Aerosol-based Nanotechnology	Particle-Lung Interactions (Special session)
12:50-14:00	Lunch, EAA Board Meeting					
14:00	Free Afternoon					

Thursday, September 5th

8:30-17:00	Registration					
9:00-10:00	Plenary lecture: Paul E. Wagner - Nucleation of vapours - molecular content of critical clusters and activation of nanoparticles, A (Meridian)					
10:00-10:30	Coffee break					
	A (Meridian)	B (Leo+Virgo)	C (Aquarius+Taurus)	D (Kepler)	E (Tycho)	F (Stella)
10:30-12:50	Atmospheric aerosols	Atmospheric aerosols	Combustion Aerosols	Electrical Effects	Fundamentals	—
12:50-14:00	Lunch, EAA Working Group Chairs Meeting					
14:00-16:00	Atmospheric aerosols	Aerosol chemistry	PMx	Combustion Aerosols	Aerosols modeling, Atmospheric aerosols (Special session)	Particle-Lung Interactions
16:00-16:30	Coffee break					
16:00-18:00	Poster Session C - Authors' Presentations					
19:30	Conference Dinner					

Friday, September 6th

8:30-14:00	Registration					
9:00-10:00	Plenary lecture: Imre Salma - Urban aerosol: tendencies and challenges, A (Meridian)					
10:00-10:30	Coffee break					
	A (Meridian)	B (Leo+Virgo)	C (Aquarius+Taurus)	D (Kepler)	E (Tycho)	F (Stella)
10:30-12:50	Atmospheric aerosols	Atmospheric aerosols	Aerosols chemistry	Fundamentals	Particle-Lung Interactions	—
12:50-14:00	Lunch					



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Programme

Sunday, September 1st

10:00-21:00 Registration
Room: Conference foyer

19.00 Welcome Reception, Exhibition Opening
Room: Conference foyer



Monday, September 2nd

- 8:45-9:00 **Opening Ceremony**
Room: A (Meridian)
- 9:00-10:00 **Plenary lecture: Aerosol particles in the marine environment**
Plenary speaker: Merete Bilde
Plenary chairs: Regina Hitzenberger, Ilona Riipinen
Room: A (Meridian)
- 10:00-10:30 **Coffee break**
Room: Conference foyer
- 10:30-12:50 **Session: Atmospheric Aerosols**
Remote sensing and optical properties of aerosols
Chairs: Lucas Alados Arboledas, Arnaud Apituley
Room: A (Meridian)
- 10:30-10:50 **Relationship between oxidation level and optical properties of secondary organic aerosol**
A. T. Lambe, C. D. Cappa, P. Massoli, T. B. Onasch, S. D. Foresteri, A. T. Martin, M. J. Cummings, D. R. Croasdale, W. H. Brune, D. R. Worsnop, P. Davidovits
- 10:50-11:10 **Satellite and ground-based retrievals of aerosol optical properties in Arctic (2003-2011)**
P. Glantz, M. Tesche, K. Stebel, A. Herber, H. Struthers, J. Karlsson, A. Bourassa, L. Thomason, M. Maturilli
- 11:10-11:30 **iSPEX: First Results of Aerosols Measured by Smartphones in The Netherlands**
A. Apituley, iSPEX team
- 11:30-11:50 **Operational boundary layer height determination with in-situ and ground-based remote sensing instruments: validation and first climatology on the Swiss plateau**
C. Praz, M. Collaud Coen, A. Hoefele, D. Ruffieux
- 11:50-12:10 **Assessment of parameterizations of optical properties and hygroscopic growth of aerosols**
A. R. Esteve, E. J. Highwood, W. T. Morgan, H. Coe, R. G. Grainger, P. Brown, C. L. Ryder, K. Szpek, J. A. Martinez-Lozano
- 12:10-12:30 **The optical properties of aerosols in Amazonia: from natural biogenic to biomass burning particles**
Paulo Artaxo, Xuguang Chi, Henrique M. J. Barbosa, Luciana V. Rizzo, Andrea Arana, Joel F. Brito, Elisa T. Sena, Joel Schaefer, Meinrat O. Andreae
- 12:30-12:50 **In-situ absorption measurement of HULIS and mineral dust components as well as winter time ambient aerosol using multi-wavelength photoacoustic instrument. A laboratory and a field study**
T. Ajtai, N. Utry, Á. Filep, Z. Bozóki, G. Szabó
- Reserve paper **Black carbon aerosol concentrations and mixing state in Pallas, Finland**
T. Raatikainen, D. Brus, A.-P. Hyvärinen, J. Svensson, H. Lihavainen

10:30-12:50 **Session: Atmospheric Aerosols***SOA and aerosol hygroscopicity*

Chairs: U. Baltensperger, M.R. Alfarra

Room: B (Leo+Virgo)

- 10:30-10:50 **Vapour pressures of substituted polycarboxylic acids are much lower than previously reported**
A. J. Huisman, U. K. Krieger, A. Zuend, C. Marcolli, Th. Peter
- 10:50-11:10 **Investigation of the effects of chemical and physical factors on the phase state of SOA particles**
A. Pajunoja, M. R. Alfarra, A. Buchholz, W. T. Hesson, G. B. McFiggans, A. Virtanen
- 11:10-11:30 **Impact of semi-volatiles on hygroscopic growth and CCN activity of secondary organic aerosol**
A. Buchholz, M. R. Alfarra, W. T. Hesson, G. McFiggans
- 11:30-11:50 **A new inlet for simultaneous gas and particle phase measurements coupled to a chemical ionisation high-resolution time-of-flight mass spectrometer**
C. Mohr, F. Lopez-Hilfiker, B. H. Lee, D. S. Covert, D. R. Worsnop, J. A. Thornton
- 11:50-12:10 **Gas and Particle Phase Acids in a Ponderosa Pine Forest**
H. Stark, R. L. N. Yatawelli, S. L. Thompson, J. R. Kimmel, B. B. Palm, D. A. Day, P. Campuzano-Jost, M. J. Cubison, J. T. Jayne, D. R. Worsnop, J. A. Thornton, J. L. Jimenez
- 12:10-12:30 **Hygroscopic Properties and Mixing state of Ultrafine Aerosol Particles over two Urban Background Sites**
S. Bezanakos, E. Konstenidou, K. Florou, A. Bougiatioti, K. Eleftheriadis, N. Mihalopoulos, A. Nenes, S. Pandis, G. Biskos
- 12:30- 12:50 **Profiling of hygroscopic properties during the Po-Valley PEGASOS campaign 2012**
B. Rosati, E. Weingartner, P. Zieger, M. Gysel, G. Wehrle, U. Baltensperger
- Reserve paper **Observations on atmospheric electricity and aerosol-cloud interactions**
Hanna E. Manninen, Hannes Tammet, Antti Mäkelä, Jussi Haapalainen, Sander Mirme, Tuomo Nieminen, Alessandro Franchin, Tuukka Petäjä, Markku Kulmala, Urmas Hörrak

10:30-12:50 **Session: Aerosol Chemistry***Chemistry of organic aerosols 1*

Chairs: Ivan Kourtchev, Yoshi Iinuma

Room: D (Kepler)

- 10:30-10:50 **Revisiting the formation of secondary organic aerosol from the photooxidation of anthropogenic precursors**
M. R. Alfarra, A. Buchholz, W. T. Hesson, R. Lidster, I. White, A. Pajunoja, J. F. Hamilton, P. Manks, A. Virtanen, G. B. McFiggans
- 10:50-11:10 **Gas-Phase Measurements of Oxidized Organic Compounds Generated by a Potential Aerosol Mass (PAM) Reactor using Acetate Chemical Ionization High-Resolution Time-of-Flight Mass Spectrometry**
P. Chhabra, A. Lambe, M. Canagaratna, H. Stark, P. Massoli, J. Kimmel, J. Jayne, D. Worsnop
- 11:10-11:30 **Time-resolved chemical composition of chamber generated SOA originated from monoterpene oxidation**
A. Mutzel, O. Böge, A. Kahnt, Y. Iinuma, H. Herrmann
- 11:30-11:50 **Dependence of α -pinene secondary organic aerosol formation on relative humidity and aerosol surface distribution**
L. Pfaffenberger, P. Barmet, R. Wolf, S. M. Platt, I. El-Haddad, J. G. Slowik, J. Dommen, A. S. H. Prévôt, U. Baltensperger

- 11:50-12:10 **Characterization of secondary organic aerosol from ozonolysis of β -pinene**
Ågot K. Watne, Eva U. Emanuelsson, Anna Lutz, Evert Ljungström, Mattias Hallquist
- 12:10-12:30 **Formation of anthropogenic secondary organic aerosol (SOA) and its influence on biogenic SOA properties**
E. U. Emanuelsson, M. Hallquist, D.-F. Zhao, B. Bohn, H. Fuchs, B. Kammer, A. Kiendler-Scharr, S. Nehr, F. Rubach, R. Tillmann, A. Wahner, H.-C. Wu, K. Kristensen, M. Glasius, Y. Rudich, Th. F. Mentel
- 12:30-12:50 **Effect of Nucleation Precursors on the Atmospheric Oxidation of Organic Compounds**
J. Elm, M. Bilde, K. V. Mikkelsen
- Reserve paper **Secondary organic aerosol formation in the ozonolysis of biogenic volatile organic compounds performed in a laminar flow reactor**
T. Braure, V. Riffault, A. Tomas, M. Duncianu, Y. Bedjanian, P. Coddeville

10:30-12:50 Session: Indoor and Working Place Aerosols

Indoor environment

Chairs: Ian Colbeck, Martin Braniš

Room: E (Tycho)

- 10:30-10:50 **Number concentration and modal Structure of indoor/outdoor fine particles in four European Cities**
M. Lazaridis, K. Eleftheriadis, V. Zdimar, J. Schwarz, Z. Wagner, J. Ondracek, Y. Drossinos, T. Glytso, S. Vratolis, K. Torseth, J. Smolik
- 10:50-11:10 **Spatial variation of air pollutants in a multilevel office building**
C. He, L. Morawska
- 11:10-11:30 **Effect of Anti-idling Campaign on the Outdoor and Indoor Aerosol Exposure at Schools**
S. A. Grinshpun, M. Yermakov, J. Y. Kim, T. Reponen, C. Shaffer, P. Ryan
- 11:30-11:50 **Exposure assessment to air pollutants in Elderly Care Centers**
Almeida-Silva, S. M. Almeida, H. T. Walterbeek
- 11:50-12:10 **Exposure to ultrafine particles in indoor and outdoor school environments across Barcelona (Spain)**
M. Viana, I. Rivas, J. Sunyer, L. Bouso, M. Álvarez, C. Sioutas, X. Querol, A. Alastuey
- 12:10-12:30 **Sources, sinks, chemical composition and transport of aerosol particles in a university lecture hall**
I. Salma, K. Dosztyá, T. Borsós, T. Weidinger, G. Kristóf, N. Péter, Zs. Kertész
- 12:30-12:50 **The effect of size, location, occupancy and microclimatic factors on air quality of university lecture rooms**
M. Braniš, K. Stupkova
- Reserve paper **Particulate Matter in Indoor Air in two Schools in Vienna, Austria**
A. Kasper-Giebl, N. Jankowski, K. Kassia, E. Can Cetintas, H. Bauer, H. Grothe

10:30 -12:50 Session: Instrumentation

New techniques

Chairs: Martin Fierz, Christof Asbach

Room: F (Stella)

- 10:30-10:50 **A fast-scanning DMA train for the precision quantification of nanoparticle dynamics**
P. M. Winkler, J. Ortega, P. H. McMurry, J. N. Smith

- 10:50-11:10 **Fast scanning mobility particle sizing system and classifier**
J. Farnsworth, F. Quant, H-G. Horn, B. Osmondson, R. Caldwell
- 11:10-11:30 **A Drift Tube Ion Mobility Spectrometer (DT-IMS) combined with a Condensation Particle Counter for Analysis of Sub 10 nm Aerosol Particles**
Derek R. Oberreit, Peter H. McMurry, Christopher J. Hogan Jr.
- 11:30-11:50 **A new version of the Particle Size Magnifier for detection of airborne molecular clusters and nano-particles as small as 1 nm**
K. Lehtipalo, A. Franchin, J. Mikkilä, J. Vanhanen, J. Kangasluoma, T. Petäjä, M. Kulmala
- 11:50-12:10 **First results of a new Gas Aerosol Nucleation Spectrometer: GANS**
P. Dohányosová, E. Montoya, E. Ramiro, S. López-Vidal
- 12:10-12:30 **The versatile Size Analyzing Nuclei Counter (vSANC)**
T. Pinterich, P. M. Winkler, P. E. Wagner, M. Kulmala, A. Virtala
- 12:30-12:50 **Charging efficiency of the single-wire corona unipolar charger with radial sheath flow**
V. Wattanamekhinkul, C.L. Chein, C.J. Tsai
- Reserve paper **Application of broadband optical cavity methods to studying the optical properties of aerosols at short wavelengths**
E. M. Wilson, J. C. Wenger, D. S. Venables

10:30-12:50 **Special Session: PM_x**
Source apportionment-AMS and carbon based
Chairs: André S. H. Prévôt, Regina Hitzenberger
Room: C (Aquarius+Taurus)

- 10:30-10:50 **ME-2 analysis of long-term on-line mass spectrometric data of non-refractory submicron aerosol in the city of Zurich**
F. Canonaco, J. G. Slowik, U. Baltensperger, A. S. H. Prévôt
- 10:50-11:10 **A Year-long C-TOF-AMS Dataset in London: Investigating Chemical Composition, Seasonal Trends and Sources of Aerosols**
D. E. Young, J. D. Allan, D. C. Green, P. I. Williams, H. Coe,
- 11:10-11:30 **Primary and secondary organic aerosol origin by combined gas-particle phase source apportionment**
M. Crippa, F. Canonaco, J. G. Slowik, I. El Haddad, P. F. DeCarlo, C. Mohr, M. F. Heringa, R. Chirico, N. Marchand, B. Temime-Roussel, E. Abidi, L. Poulain, A. Wiedensohler, U. Baltensperger, A. S. H. Prévôt
- 11:30-11:50 **Long-term monitoring, chemical composition and source apportionment study of PM_{2.5} in Augsburg, Germany**
R. M. Qadir, G. Abbaszade, J. Schnelle-Kreis, R. Zimmermann
- 11:50-12:10 **Composition and Source Identification of Ambient Single Particles during the NANO-INDUS 2012 Campaign in Dunkirk, France**
J. Arndt, R. Healy, A. Setyan, K. Deboudt, V. Riffault, A. Blondel, A. Anderson, L. Y. Alleman, S. Mbengue, P. Flament, J. Wenger
- 12:10-12:30 **Radiocarbon-based source apportionment of elemental carbon and organic carbon at a regional background site on Hainan Island, South China**
Y. L. Zhang, J. Li, G. Zhang, A. S. H. Prévôt, S. Szidat,
- 12:30-12:50 **Wood-burning emissions within a continuous-flow photooxidation reactor: Soot-Particle Aerosol Mass Spectrometer characterization**
J. C. Corbin, A. Keller, H. Burtscher, B. Sierau, U. Lohmann, A. A. Mensah
- Reserve paper **Micromarkers of source-specific combustion aerosols**
O. B. Popovicheva, E. D. Kireeva, N. M. Persiantseva

12:50-14:00 Lunch break

14:00-16:00 **Session: Instrumentation**

Combustion aerosol and chemical measurements

Chairs: Markus Pesch, Michal Vojtíšek-Lom

Room: B (Leo+Virgo)

14:00-14:20 **Measurement of chemisorption on metallic nanoparticles using aerosol photoemission spectroscopy**

S. Onel, M. Seipenbusch

14:20-14:40 **Validation of an online, real-time, soft photon ionisation (SPI) time of flight mass spectrometer for mainstream tobacco smoke analysis**

J. Hawke, M. Bente Von Frowein

14:40-15:00 **An accurate, real-time and low-cost method to measure biomass smoke**

Yungang Wang, Daniel L. Wilson, Philip K. Hopke, Ashok J. Gadgil

15:00-15:20 **Multi-wavelength characterization of carbonaceous aerosol**

P. Prati, V. Ariola, V. Bernardoni, M.C. Bove, G. Calzolari, M. Chiari, F. Lucarelli, D. Massabò, S. Nava, A. Piazzalunga, G. Valli, R. Vecchi

15:20-15:40 **Characterization of Black Carbon concentration, sources and age using an Aethalometer AE33**

L. Drinovec, G. Močnik, J. E. Petit, J. Sciare, O. Favez, P. Zotter, R. Wolf, A. S. H. Prévôt, A. D. A. Hansen

15:40-16:00 **Hyphenation of a Thermal/Optical Carbon Analyzer to photo-ionization mass spectrometry for determination of the organic content of aerosol particles**

T. Streibel, J. Grabowsky, J. C. Chow, J. G. Watson, R. Zimmermann

Reserve paper **Organic aerosol speciation with in-situ thermal desorption gas chromatography: a brief history of the TAG instrument**

N. M. Kreisberg, S. V. Hering, A. P. Teng, G. Isaacman, Y. Zhao, D. R. Worton, A. W. H. Chan, B. J. Williams, J. T. Jayne, A. T. Lambe, T. Hohaus, J. R. Kimmel, D. T. Sueper, W. Brooks, L. R. Williams, A. M. Trimborn, D. R. Worsnop, A. H. Goldstein

14:00-16:00 **Session: Aerosol Modelling**

Models for aerosol emission and nucleation

Chairs: Sabine Wurzler, Michael Boy

Room: A (Meridian)

14:00- 14:20 **Contribution of ion-assisted nucleation to new particle formation in a tropical boundary layer**

V. P. Kanawade, S. N. Tripathi, D. K. Stingh, A. S. Gautam A. K. Srivastava, A. K. Kamra

14:20-14:40 **The role of sulphuric acid in the formation of atmospheric particles based on a long-term explicit modelling approach**

M. Boy, L. Zhou, D. Mogensen, A. Sogachev, S. Smolander

14:40-15:00 **Hydration of Sulfuric Acid Clusters and the Impact of Bases**

H. Henschel, I. K. Ortega, O. Kupiainen, T. Olenius, T. Kurtén, H. Vehkamäki

15:00-15:20 **Simulations of SOA formation from alpha-pinene ozonolysis and photo-oxidation in chamber experiments**

G. Capes, D. Lowe, G. McFiggans

15:20-15:40 **Effects of electric vehicles on air quality in street canyons**

T. Schöllhammer, F. Lommes, T. Schulz, H. Hebbinghaus, S. Wurzler

15:40-16:00 **Remapping of aerosol emissions in a modal models as a source of error**

T. Korhola, H. Kokkola, H. Korhonen, A.-I. Partanen, A. Laaksonen, S. Romakkaniemi

Reserve paper **Impact of biogenic emissions on PM_{2.5} concentration over Europe**
E. Tagaris, R. E. P. Sotiropoulou, N. Gounaris, S. Andronopoulos, D. Vlachogiannis

14:00-16:00 **Session: Combustion Aerosols**

Characterization methods of combustion aerosols

Chairs: F.X. Ouf, N. Ivleva

Room: C (Aquarius+Taurus)

14:00-14:20 **Automatized determination of the primary particles size of soot aggregates by TEM image analysis**

A. Bescond, J. Yan, C. Rozé, F. X. Ouf

14:20-14:40 **Electrical Conductivity Measurements in Combination with Raman Microspectroscopy and Temperature Programmed Oxidation for Analysis of Microstructure and Reactivity of Soot**

B. Grob, F. Knoller, N. P. Ivleva, R. Niessner

14:40-15:00 **Aerosol mass spectrometry of refractory black carbon containing particles**

T. B. Onasch, E. C. Fortner, P. Massoli, L. R. Williams, A. T. Lambe, A. M. Trimborn, J. T. Jayne, P. Davidovits, D. R. Worsnop

15:00-15:20 **REMPI-Laser-mass spectrometry: On-line and off-line analysis of the molecular signature of polycyclic aromatic hydrocarbons (PAH) in gas- and particle-phase of combustion aerosols**

R. Zimmermann, C. Radtsch, O. Sippula, M. Kelbg, M. Sklorz, J. Passig, C. Busch, M. Oster, H. Harndorf, A. Walte, B. Stengel, T. Streibel

15:20-15:40 **Carbonaceous aerosols and variations in their light absorbing properties**

C. Linke, I. Ibrahim, R. Hitznerberger, M. Schnaiter

15:40-16:00 **Effective density of particles from different combustion conditions and engineered TiO₂ nanoparticles**

J. Leskinen, M. Ihalainen, T. Torvela, J. Ruusunen, M. Miettinen, I. Nuutinen, J. Lyyrinen, A. Auvinen, J. Joutsensaari, O. Sippula, J. Tissari, J. Jokiniemi

Reserve paper **Dilution affects particle properties originating from residential biomass combustion**

H. Lambert, T. Kaivosoja, J. Leskinen, M. Kortelainen, A. Viren, H. Koponen, V. Tiihonen, M. Miettinen, J. Pyykönen, J. Jokiniemi, J. Tissari

14:00-16:00 **Session: PMx**

Urban PMx

Chairs: Regina Hitznerberger, M. Van Poppel

Room: D (Kepler)

14:00-14:20 **Road surface dust load is dependent on road surface macro texture**

G. Blomqvist, M. Gustafsson, T. Lundberg

14:20-14:40 **Evaluating the use of dust suppressant to control local PM₁₀ concentrations**

G. W. Fuller, B. Barratt, D. Carslaw, D. Green, A. H. Tremper

14:40-15:00 **CHEMKAR PM₁₀: A year-long chemical characterization of PM₁₀ in Flanders (Belgium) in 4 major cities and 3 types of locations**

J. Vercauteren, D. Roet, C. Matheussen, E. Roekens, R. Vermeylen, W. Maenhaut, M. Claeys

- 15:00-15:20 **Non-exhaust PMx emissions from road traffic**
M. Maasikmets, E. Teinemaa, T. Arumäe, V. Kimmel
- 15:20-15:40 **Atmospheric particulate mercury in the megacity Beijing – spatio-temporal variations, sources, and efficiency of mitigation measures**
N. J. Schleicher, J. Schäfer, G. Blanc, Y. Chen, F. Chai, S. Wang, S. Norra
- 15:40-16:00 **Air Quality Study within Steel Works Town in the UK**
R. Vecchi, S. Nava, G. Calzolari, F. Lucarelli, G. Valli, D. C. S. Beddows, A. M. Taiwo, R. M. Harrison
- Reserve paper **Blue sky over the Ruhr – a review of the effectiveness of more than 50 years of air quality measures in Germany**
S. Wurzler, H. Hebbinghaus, P. Bruckmann, J. Friesel, U. Pfeffer

14:00-16:00 **Session: Aerosol-based Nanotechnology**

Applications of engineered nanoparticles

Chairs: J. Davis, G. Biskos

Room: F (Stella)

- 14:00-14:20 **Nanostructural engineering of Pt/C catalyst via spray drying for electrocatalyst applications**
R. Balgis, G. M. Anilkumar, S. Sago, T. Ogi, K. Okuyama
- 14:20-14:40 **Gas sensors by flame aerosol deposition: Correlations between blood glucose and breath components from portable gas sensors and mass spectroscopy**
M. Righettoni, A. Schmid, A. Amann, S. E. Pratsinis
- 14:40-15:00 **Aerosol synthesis of porous Particles for structured layers as catalyst support for Fischer-Tropsch reaction**
L. Zeng, A. P. Weber
- 15:00-15:20 **Optical heating of nanorods in a laser tweezers**
P. B. Rader, B. E. Smith, P. J. Pauzuskie, E. J. Davis
- 15:20-15:40 **Correlation between Catalytic Activity and Production of Reactive Oxygen Species for Airborne Engineered Palladium Nanoparticles**
N. Neubauer, J. Palomaeki, H. Alenius, G. Kasper
- 15:40-16:00 **Substance release kinetics of spherical and non-spherical hybrid nanoparticles generated by aerosol-photopolymerization**
E. Akgün, M. Vranceanu, B. Sachweh, J. Hubbuch, M. Wörner
- Reserve paper **Industrial by-products as precursors for gas-phase nanoparticle synthesis**
T. Karhunen, A. Lähde, T. Torvela, J. Jokiniemi

14:00-16:00 **Special Session: Aerosol Chemistry**

Radical chemistry and aerosol formation

Chairs: Thorsten Hoffman, Thomas Zeuch

Room: E (Tycho)

- 14:00-14:20 **Partially oxidized radicals – crucial intermediates during atmospheric aerosol formation**
J. Ahrens, P. T. M. Carlsson, C. Keunecke, M.-C. Maas, J. L. Wolf, T. Zeuch
- 14:20-14:40 **Formation of organosulfates from the sulfate radical induced oxidation of methacrolein and methyl vinyl ketone**
J. Schindelka, Y. Iinuma, D. Hoffmann, H. Herrmann

- 14:40-15:00 **The oxidation of alpha-pinene and limonene in a flow tube, investigated using the CI-API-TOF**
M. P. Rissanen, M. Sipilä, M. Ehn, N. Sarnela, T. Jokinen, J. Kangasluoma, T. Petäjä, H. Junninen, D. Worsnop, M. Kulmala
- 15:00-15:20 **Ozonolysis of shikimic acid particles caught in the act**
S. Steimer, A. J. Huisman, U. K. Krieger, T. Peter, M. Lampimäki, G. Gržinić, E. Coz, B. Watts, J. Raabe, M. Ammann
- 15:20-15:40 **Aerosol particles in molecular beams: pickup of molecules, chemistry and photochemistry**
M. Fárník, V. Paterya, A. Pysanenko, J. Lengyel, J. Kočíšek, J. Fedor
- 15:40-16:00 **Photoionization and infrared excitation of clusters with radical sites: Probing size and structure of neutral, sodium doped water clusters**
C. C. Pradzynski, U. Buck, R. M. Forck, F. Zurheide, T. Zeuch
- Reserve paper **Pressure dependency of ozonolysis product formation of α -pinene focusing on low volatile compounds such as organic acids and dimeric compounds**
M. Beck, C. Keunecke, T. Zeuch, T. Hoffmann

16:00-16:30 **Coffee break**
Room: Conference foyer

16:00-18:00 **Poster Session A - authors' presentations**

19:00 **Concert**
Venue: Bethlemlen Chapel

Tuesday, September 3rd

9:00-10:00 **Plenary lecture: Primary Biological Atmospheric Aerosols**

Plenary speaker: Ruprecht Jaenicke

Plenary chairs: Ian Colbeck, Andrei Bologa

Room: A (Meridian)

10:00-10:30 **Coffee break**
Room: Conference foyer

10:30-12:50 **Session: Atmospheric Aerosols**

Carbonaceous aerosols

Chairs: A. Petzold, U. Dusek

Room: A (Meridian)

10:30-10:50 **Recommendations for the interpretation of “black carbon” measurements**

A. Petzold, John A. Ogren

10:50-11:10 **Comparability of methods to measure black and elemental carbon in two European urban areas - site and seasonal similarities and differences**

R. Hitztenberger, J. Schwarz, I. Aschauer, R. Haindl, W. Ludwig, R Wagner, A. Wonaschuetz, G. Zecha, I. Ševčíková, P. Vodička, N. Žiková, V. Ždímal

11:10-11:30 **Seasonal variations of black carbon physical properties influenced by different sources in London urban environment**

Dantong Liu, James Allan, Michael Flynn, Dominique Young, Hugh Coe, Martin Gallagher

11:30-11:50 **Influence of vertical transport on the mixing state of black carbon at the high-alpine Jungfrauoch site**

M. Gysel, M. Laborde, N. Bukowiecki, E. Hammer, P. Zieger, U. Baltensperger, E. Weingartner

11:50-12:10 **Fossil and non-fossil sources of OC and EC in Switzerland for winter-smog episodes**

S. Szidat, P. Zotter, Y. L. Zhang, V. G. Giobanu, L. Wacker, Baltensperger, A. S. H. Prévôt

12:10-12:30 **Long-term variability of elemental and organic carbon in aerosols over Athens, Greece**

D. Paraskevopoulou, E. Liakakou, E. Gerasopoulos, N. Mihalopoulos

12:30-12:50 **Influence of the traffic on the black carbon particle mass concentration and particle number size distribution in La Paz, Bolivia**

A. Wiedensohler, K. Weinhold, M. Andrade, F. Velarde, I. Moreno, F. Avila

Reserve paper **Long-term observations of carbonaceous aerosols and related gaseous emissions near a crude-oil plant in South Italy**

M. Calvello, M. Lovallo F. Esposito, L. Mangiamiele, G. Pavese

10:30-12:50 **Session: Atmospheric Aerosols***New particle formation between ground and free troposphere*Chairs: Birgit Wehner, Michael Boy
Room: B (Leo+Virgo)10:30-10:50 **Secondary particle formation in Arctic Russia**

E. Asmi, V. Kondratyev, D. Brus, H. Lihavainen, T. Laurila, M. Aurela, T. Urtta, V. Ivakhov, A. Makshits

10:50-11:10 **New Aerosol Particle formation in Amazonia**

M. Matsanos, P. Tunved, T. Hamburger, H. E. Manninen, J. Backman, L. Rizzo, P. Artaxo, I. Riipinen, E. Swietlicki, R. Krejci, M. Kulmala

11:10-11:30 **Formation and chemical properties of nano-sized particles in the lower free troposphere**

J. Tröstl, J. Duplissy, F. Bianchi, L. Rondo, H. Junninen, A. Adamov, A. P. Praplan, C. Fuchs, J. Dommen, E. Weingartner, U. Baltensperger

11:30-11:50 **Enhancement in CCN concentrations during new particle formation events**

Z. J. Wu, W. Birmili, L. Poulain, Z. B. Wang, A. Hamed, S. Henning, F. Stratmann, H. Herrmann

11:50-12:10 **NanoShip: Are there any new particle formation events over the North Sea?**

N. Kelbus, A. Massling, R. Lange, M. Fiebig, B. Henzing, M. Glasius, M. Bilde, Q. T. Nguyen, M. Moerman, G. de Leeuw, M. Dal Maso, Niku Kivekäs, A. Kristensson

12:10-12:30 **Onset of new particle formation in boundary layer**

H. E. Manninen, S. Mirmo, M. Ehn, K. Leino, S. Schobesberger, H. Junninen, E. Järvinen, J. Kangasluoma, T. Nieminen, R. Tillmann, F. Angelini, G. P. Gobbi, A. Mirmo, S. Decesari, A. Wahner, T. Petäjä, D. R. Worsnop, F. Rohrer, T. F. Mentel, M. Kulmala

12:30-12:50 **Events of increased particle number concentrations around trade wind cumuli near Barbados**

B. Wehner, F. Ditas, A. Wiedensohler, H. Siebert

Reserve paper **Characteristics of new particle formation events in Hungarian background air at K-pusztá, 2008-2012**

Zs. Bécsi, Á. Molnár, K. Imre, P. P. Aalto

10:30-12:50 **Session: Aerosol Chemistry***Chemistry of organic aerosols 2*Chairs: Magda Claeys, Josef Dommen
Room: C (Aquarius+Taurus)10:30-10:50 **Novel smog chamber studies of wood burning emissions at low temperatures**

E. A. Bruns, I. El Haddad, S. M. Platt, B. Temime-Roussel, D. Kilic, J. G. Slowik, A. Detournay, G. Močnik, N. Marchand, U. Baltensperger, A. S. H. Prevôt

10:50-11:10 **Atmospheric reactivity of biomass burning emitted compounds: methoxyphenols OH rate constants and Secondary Organic Aerosol formation**

A. Lauraguais, C. Coeur-Tourneur, A. Cassaz, J. C. Wenger, A. Seydi, K. Deboudt, M. Fourmentin, M. Choël

11:10-11:30 **Particle-bound Methoxyphenols and their atmospheric nitration products as wood combustion tracers**

J. Orasche, J. Schnelle-Kreis, G. Abbaszade, M. Elsasser, R. Zimmermann

11:30-11:50 **Aqueous-phase photochemical oxidation and direct photolysis of vanillin as a model compound of methoxy-phenols from biomass burning**

Y. J. Li, H. Y. Cheung, D. D. Huang, W. H. Fan, L. E. Yu, C. K. Chan

- 11:50-12:10 **Secondary organic aerosol formation through aqueous phase photooxidation of aromatic compounds**
Z. Kitanovski, I. Grgić, A. Čusak, M. Claeys
- 12:10-12:30 **Photosensitized reactions at the air-sea interface: a potential source of aerosol**
R. Ciuraru, F. Bernard, S. Rossignol, L. Fine, C. George
- 12:30-12:50 **Black Carbon Containing Particles at a Rural Site Southeast of London during ClearLo Winter IOP Detling Site**
L. R. Williams, S. Herndon, J. Jayne, A. Freedman, B. Brooks, J. Franklin, P. Massoli, E. Fortner, P. Chhabra, M. Zahniser, H. Stark, T. Onasch, M. R. Canagaratna, D. R. Worsnop, F. Lopez-Hilfiker, C. Mohr, J. Thornton, N. L. Ng, L. Xu, W. B. Knighton, M. Dubey, A. Aiken, K. Gorkowski, S. Liu, T. Martin, R. Coulter, S. Visser, M. Furger, P. Zotter, A. S. H. Prévôt
- Reserve paper **Contribution of Inorganic aerosols and trace gases due to biomass burning during cooking hours at a rural site in India**
Sudha Singh, Gyan Prakash Gupta, Bablu Kumar, U. C. Kulshrestha

10:30-12:50 Session: Indoor and Working Place Aerosols

Workplace exposure

Chairs: Congrong He, Kaarle Hämeri

Room: D (Kepler)

- 10:30-10:50 **Nanoparticle Release from Dental Composites during Restoration Grinding and Polishing**
C. Asbach, B. Hellack, B. Van Meerbeek, M. Peumans, P. Hoet, M. Wiemann, T. A. J. Kuhlbusch, K. L. Van Landuyt
- 10:50-11:10 **Micro and nanoparticles released from the thermal cutting of polystyrene foams and the associated isomerization of hexabromocyclododecane (HBCD) diastereomers**
Y.-Y. Kuo, H. Zhang, A. C. Gerecke, J. Wang
- 11:10-11:30 **Mixed dust exposure and health risk assessment in the ceramics industry**
B. Moroni, D. Cappelletti, F. Scardazza, S. Becagli, R. Traversi, R. Udisti
- 11:30-11:50 **A prototype of a new engineered nanoparticle monitoring device for workplaces: Device testing**
J. Ruusunen, J. Leskinen, T. Torvela, M. Ihalainen, T. Karhunen, I. K. Koponen, V. Niemelä, A. Lähde, J. Jokiniemi
- 11:50-12:10 **Occupational exposure to ultrafine particles – work place measurements**
A.-K. Viitanen, A. J. Koivisto, T. Kanerva, K. Hämeri
- 12:10-12:30 **The Use of Nuclepore Filter for Ambient and Workplace Nanoparticle Exposure Assessment**
Sheng-Chieh Chen, Jing Wang, Heinz Fissan, David Y.H. Pui
- 12:30-12:50 **Characterization and emission measurements of multi-walled carbon nanotube release during production**
L. Ludvigsson, C. Isaxon, P. T. Nilsson, M. Hedmer, H. Tinnerberg, M. E. Messing, J. Rissler, V. Skaug, A. Gudmundsson M. Bohgard, J. Pagels
- Reserve paper **Particle characterization during abrasive treatment of composite material containing fibres by Cryo HRTEM**
K. I. Lieke, M. Levin, K. A. Jensen, I. K. Koponen

10:30-12:50 **Session: Instrumentation***Ambient aerosol instrumentation*

Chairs: Oliver Bischof, Wladyslaw Szymanski

Room: E (Tycho)

- 10:30-10:50 **Urban particulate matter monitoring on a mobile platform: a real time experiment on a long term scale**
B. Moroni, E. Scocchera, A. Piazzalunga, M. G. Ranalli, S. Castellini, D. Cappelletti
- 10:50-11:10 **A new aerosol conditioning system - Characterisation and first application**
M. Laborde, B. Rosati, P. Zieger, T. Petäjä, G. Kossell, D. Logan, E. Weingartner
- 11:10-11:30 **Particle number concentration monitor for atmospheric aerosols**
L. Hillemann, A. Zschoppe
- 11:30-11:50 **A new visual expansion-type Condensation Particle Counter**
B. Bühner, A. Wagner, A. Kürten, J. Curtius
- 11:50-12:10 **Development of a high volume air-into-liquid aerosol collector for PM2.5 and ultrafine particulate matter**
Dongbin Wang, Payam Pakbin, Arian Saffari, James J Schauer, Constantinos Sioutas
- 12:10-12:30 **Online Method for Size-Resolved Chemical Speciation of Nano-Particles**
A. Wagner, A. Kürten, C. Fuchs, J. Hoker, J. Curtius
- 12:30-12:50 **Development of an automated total carbon analyzer for atmospheric aerosols**
Y. Komazaki, Y. Kanaya
- Reserve paper **Remotely operated PLUS-octocopter used as an aerosol measurement platform**
P. Madl, C. Oberauer, F. Steinhäusler

10:30-12:50 **Special Session: PMx***Source apportionment-intercomparisons and trends*

Chairs: Thomas Kuhlbusch, Willy Maenhaut

Room: F (Stella)

- 10:30-10:50 **European Intercomparison for Receptor Models Using a Synthetic Database**
C. A. Belis, F. Karagulian, F. Amato, M. Almeida, G. Argyropoulos, P. Artaxo, M. C. Bove, D. Cesari, D. Contini, E. Diapouli, K. Eleftheriadis, I. El Haddad, R. M. Harrison, S. Hellebust, E. Jang, H. Jorquera, D. Moorbroek, S. Nava, J. K. Nøjgaard, M. Pandolfi, M. G. Perrone, A. Pietrodangelo, G. Pirovano, P. Pokorná, P. Prati, C. Samara, D. Saraga, A. Sfetsos, G. Valli, R. Vecchi, M. Vestenius, E. Yubero, P. K. Hopke
- 10:50-11:10 **Ten-year study of fine aerosol at Sde Boker, Israel: time trends, seasonal variation, correlations, and source areas for anthropogenic elements**
W. Maenhaut, A. Karnieli, M. O. Andreae
- 11:10-11:30 **Impact of international shipping on European air quality**
M. Viana, A. Colette, J. van Aardenne, X. Querol, B. Degraeuwe, P. Hammingsh, I. de Vlieger
- 11:30-11:50 **Hourly elemental composition and source identification of fine and coarse particulate matter in the high polluted industrial area of Taranto (Italy)**
F. Lucarelli, G. Calzolari, M. Chiari, S. Nava
- 11:50-12:10 **Source apportionment of size resolved particulate matter in European air pollution hot spot**
P. Pokorná, J. Hovorka, P. K. Hopke

- 12:10-12:30 **A mass closure and source apportionment study on PM1 in Milan (Italy)**
R. Vecchi, V. Bernardoni, M. Boretti, M. Elser, P. Fermo, A. Piazzalunga, R. Gonzalez Turrión, G. Valli
- 12:30-12:50 **Performance of the Chemical Mass Balance Model with Various Traffic Profiles**
Pallavi Pant, Jianxin Yin, Roy M. Harrison
- Reserve paper **PMF source apportionment for fine and coarse PM in Athens, Greece: Evolution of source contributions over the last decade**
K. Eleftheriadis, E. Diapouli, A. Karanasiou, S. Vratolis, V. Vasiliadou, M. Gini, D. Saraga, S. Pateraki, Th. Maggos

12:50-14:00 Lunch break

14:00-16:00 **Atmospheric Aerosols**

New particle formation

Chairs: Amar Hamed, Vladimír Ždímal

Room: A (Meridian)

- 14:00-14:20 **Role of organics in particle nucleation as viewed from a positive ion spectrometer**
F. Bianchi, J. Dommen, J. Tröstl, S. Schobesberger, H. Junninen, D. R. Worsnop, E. Weingartner, U. Baltensperger, the CLOUD collaboration
- 14:20-14:40 **Particle formation above natural and simulated salt lakes**
K. A. Kamilli, J. Ofner, T. Sattler, T. Krause, C. Zetzsch, A. Held
- 14:40-15:00 **Secondary aerosol formation from stress-induced biogenic emissions and possible climate feedbacks**
Th. F. Mentel, E. Kleist, S. Andres, M. Dal Maso, Th. Hohaus, A. Kiendler-Scharr, Y. Rudich, M. Springer, R. Tillmann, R. Uerlings, A. Wahner, J. Wildt
- 15:00-15:20 **Nanoparticle Growth Mechanisms During New Particle Formation**
M. V. Johnston, B. R. Bzdek, A. J. Horan, J. W. DePalma
- 15:20-15:40 **Comparative study of atmospheric particle formation using laboratory tools - COMPASS**
T.S. Sun, B. Bonn
- 15:40-16:00 **Estimating pre-existing aerosol effects on tropospheric aerosol production**
M. Dal Maso, L. Liao, H. Vehkamäki, H. Korhonen, K. E. J. Lehtinen
- Reserve paper **Intercomparison of sulphuric acid measurements and neutral cluster composition in the lower free troposphere**
L. Rondo, M. Simon, H. Junninen, J. Duplissy, A. Praplan, A. Adamov, A. Kürten, M. Sipilä, F. Bianchi, J. Tröstl, E. Weingartner, U. Baltensperger, M. Kulmala, J. Curtius

14:00-16:00 **Session: Aerosol Modelling**

Modelling aerosols in different environments

Chairs: David Topping, Svetlana Tsyro

Room: B (Leo+Virgo)

- 14:00-14:20 **CFD prediction of the spatial distribution of particulate matter deposition indoors**
J. Grau-Bové, L. Mazzei, M. Strlič
- 14:20-14:40 **Correction of approximation errors with random forests applied to modelling of aerosol first indirect effect**
A. Lipponen, V. Kolehmainen, S. Romakkaniemi, H. Kokkola

- 14:40-15:00 **A simplified model to predict partitioning between the vapour and multiple condensed phases in mixed inorganic- organic aerosol particles**
D. Topping, G. McFiggans, M. Barley
- 15:00-15:20 **Wall losses of vapours distort yield calculations in SOA chamber experiments**
H. Kokkola, P. Yli-Pirila, H. Korhonen, M. Vesterinen, H. Keskinen, S. Romakkaniemi, L. Hao, J. Joutsensaari, D. Worsnop, A. Virtanen, K. E. J. Lehtinen
- 15:20-15:40 **Development of the Secondary Organic Aerosol Processor (SOAP) model: multi-phase partitioning, non-ideality, phase separation and multi-layer representation of the semi-solid state of organic aerosols**
F. Couvidat, K. Sarrelet
- 15:40-16:00 **Numerical studies of aerosol activation behaviour in warm clouds compared to in-situ measurements at the high-alpine site Jungfraujoch**
E. Hammer, C. R. Hoyle, B. P. Luo, M. Gysel, N. Bukowiecki, U. Lohmann, R. Vogt, C. Marcolli, T. Peter, U. Baltensperger, E. Weingartner
- Reserve paper **Dependence of Aircraft Smoke Number on Black Carbon Size Distribution**
M. E. J. Stettler, J. J. Swanson, A. M. Boies

14:00-16:00 Session: Combustion Aerosols

Combustion and industrial aerosols

Chairs: A. Bologna, S. Grinshpun

Room: C (Aquarius+Taurus)

- 14:00-14:20 **Sulphuric Acid Aerosol Formation in Industrial Processes – Simulation and CPC measurement at a Pilot Plant**
L. Brachert, S. Sinanis, K. Schaber
- 14:20-14:40 **Inactivation of Aerosolized Spores in Combustion Environments Using Filled Nano-composite Materials: Study with Two Surrogates of Bacillus Anthracis**
S. A. Grinshpun, M. Yermakov, R. Indugula, X. He, T. Reponen, E. Dreizin, M. Schoenitz, S. Zhang, Y. Aly
- 14:40-15:00 **Size distribution and light scattering properties of standard test fire aerosols**
Zs. Jurányi, S. Lauber, A. Duric, M. Allemann, B. Schmid, M. Loepfe, H. Burtcher
- 15:00-15:20 **On-site estimation of secondary organic aerosol production potential from wood burning appliances**
A. Keller, J. C. Corbin, A. A. Mensah, B. Sierau, H. Burtcher
- 15:20-15:40 **Reference particles for toxicology studies of biomass combustion generated ash particles**
T. Torvelo, O. Uski, A. Lähde, J. Grigonyte, T. Karhunen, T. Koponen, M.-R. Hirvonen, J. Jokiniemi
- 15:40-16:00 **Study of fine particle emissions from small scale wood chips combustion boiler**
A. Bologna, M. Ecker, H.-P. Rheinheimer, K. Woletz, H.-R. Paur
- Reserve paper **Effects of severe congestion on PAH emissions from a heavy vehicle diesel engine**
M. Vojtisek-Lom, M. Pechout, M. Mazač, J. Topinka

14:00-16:00 **Session: PMx***Urban and regional PMx*

Chairs: Willy Maenhaut, Roberta Vecchi

Room: D (Kepler)

14:00-14:20 **EC/OC comparison exercise with same thermal protocols after temperature offsets correction**

P. Panteliadis, T. Hafkenscheid, B. Cary, W. Maenhaut

14:20-14:40 **The fossil fraction of carbon in PM_{2.5}: Variations on seasonal and diurnal time scales**

U. Dusek, M. Monaco, A. Kappetijn, H. A. J. Meijer, S. Szidat, T. Röckmann

14:40-15:00 **Ultrafine particles at eight urban sites in Antwerp: instrument comparison and spatiotemporal variation in particle number concentration and size distribution**

J. Staelens, E. Frijns, P. Berghmans, G. P. A. Kos, C. Matheussen, P. Panteliadis, B. Bergmans, E. P. Weijers, K. Wyche, E. Roekens

15:00-15:20 **Long term trend and weekly cycles of PM₁₀ in the Po valley**

A. Bigi, G. Ghermandi

15:20-15:40 **Fugitive particle emissions from steel making: source characteristics and local air quality impact investigated with a mobile laboratory**

F. Drewnick, F. Freutel, S.-L. von der Weiden-Reinmüller, J. Fachinger, S. Borrmann

15:40-16:00 **Elemental composition and potential toxicity of airborne particles at some urban schools**

L. R. Grilley, G. A. Ayoko, E. Stelcer, D. D. Cohen, L. Morawaska

Reserve paper **Characterisation of the aerosol sources in Brindisi (Italy) harbour area within the CESAPO project: an overview of the experimental results**

D. Contini, D. Cesari, A. Donato, A. Gambaro, A. Genga, G. Giovanelli, R. Gioia, F.M. Grasso, E. Gregoris, P. Ielpo, S. Masieri, E. Merico, E. Morabito, A. Nocioni, T. Pastore, M. Siciliano

14:00-16:00 **Session: Aerosol-based Nanotechnology***Fabrication of nanostructured materials**with aerosol nanoparticles*

Chairs: E. Kruis, J. Rosell-Llompart

Room: E (Tycho)

14:00-14:20 **Rapid synthesis of multi-layered & multi-functional polymer nanocomposite films**

C. O. Blattmann, G. A. Sotiriou, S. E. Pratsinis

14:20-14:40 **Electrostatic charging during electrospray deposition of polymer granular coatings**

E. Bodnár, N. Sochorakis, J. Grifoll, J. Rosell-Llompart

14:40-15:00 **Towards deposition of single layer graphene by an electrospray ion-assisted method**

L. B. Modesto-Lopez, O. V. Bilousov, J. M. Serres, J. Rosell-Llompart, J. J. Carvajal, F. Diaz

15:00-15:20 **Large-Area Patterning of Three-dimensional Nanoparticle Structure Arrays via Ion Assisted Aerosol Lithography (IAAL) and Multi-tip Spark Discharge**

K.-Y. Ha, H.-S. Choi, K.-N. Jung, K.-H. Han, J.-K. Lee, M. Choi

15:20-15:40 **Silver-decorated silica nanoparticles in a multilayered plasmonic structure**

J. Harra, M. Zdanowicz, M. Virkki, A. Rantamäki, M. Honkanen, G. Genty, M. Kauranen, J. M. Mäkelä

15:40-16:00 **Aerosol synthesis of semiconductor nanowires**
M. Heurlin, M. H. Magnusson, D. Lindgren, M. Ek, L. R. Wallenberg, L. Samuelson, K. Deppert

Reserve paper **Dry deposition of electrospayed liquid suspensions**
S. Martin, B. Martinez-Vazquez, P. L. Garcia-Ybarra, J. L. Castillo

16:00-16:30 **Coffee break**
Room: Conference foyer

16:00-18:00 **Poster Session B - authors' presentations**



Wednesday, September 4th

8:45-9:45

Plenary lecture: The Dynamics of Indoor Aerosol: what is important, where, when and why?

Plenary speaker: Lidia Morawska

Plenary chairs: Mihalis Lazaridis, Erik Swietlicki

Room: A (Meridian)

9:45-10:00

Smoluchowski Award

Room: A (Meridian)

10:00-10:30

Coffee break

Room: Conference foyer

10:30-12:50

Session: Atmospheric Aerosols

Physico-chemical properties and transport

Chairs: J. Ström, E. Weingartner

Room: A (Meridian)

10:30-10:50

Unmanned Aircraft Aerosol Sampling: Improvements in Capabilities and Sample Analyses

C. F. Cahill, G. W. Walker, T. A. Cahill, C. R. Icedman, D. E. Barnes

10:50-11:10

Aerosol mass spectrometry on a Zeppelin NT in the planetary boundary layer

F. Rubach, A. Trimborn, T. F. Mentel, A. Wahner, PEGASOS 0 Zeppelin Team

11:10-11:30

Classification of aerosol size distributions observed at a tropical high altitude station

T. Hamburger, M. Matisans, J. Ström, P. Tunved, G. Hoshild, J. Gross, S. Calderon, P. Hoffmann, T. Schmeissner, R. Krejci

11:30-11:50

Chemical composition (ions and selected metals) of size-segregated aerosol samples collected at Ny Alesund (Svalbard Island - Norway) during the 2010 and 2011 summer campaigns

S. Becagli, M. Busetto, G. Calzolari, D. Cappelletti, D. Frosini, F. Lucarelli, A. Lupi, M. Mazzola, B. Moroni, S. Nava, M. Severi, R. Traversi, A. Viola, V. Vitale, R. Udisti

11:50-12:10

Sub-micrometer non-refractory aerosol composition and their sources at Welgegend in the southern African grassland region

P. Tiitta, V. Vakkari, M. Josipovic, P. Croteau, P. Beukes, P. Van Zyl, A. Venter, K. Jaars, J. Pienaar, S. Ng, M. Canagaratna, J. Jayne, V. Kerminen, M. Kulmala, A. Laaksonen, J. Jokiniemi, D. Worsnop, L. Laakso

12:10-12:30

Chemical composition of the 300°C refractory fraction of the atmospheric aerosol at the Central European station Melpitz, Germany/Leibniz Institute for Tropospheric Research

L. Poulain, W. Birmili, F. Canonaco, M. Crippa, Z. J. Wu, S. Nordmann, G. Spindler, A. S. H. Prévôt, A. Wiedensohler, H. Herrmann

12:30-12:50

Seasonal and spatial variation of PM1 organic tracers in densely populated Mediterranean urban areas: Barcelona vs. Madrid

B. L. van Drooge, M. Fontal, N. Bravo, P. Fernandez, M. A. Fernández, J. Muñoz-Amann, B. Jiménez, J. O. Grimalt

Reserve paper **Winter particulate matter (PM10) sources for an Austrian-Slovenian border region**

M. Kistler, E. C. Cefintas, H. Bauer, A. Kasper-Giebl

10:30-12:50 **Session: Atmospheric Aerosols**

Urban aerosols—from particle counts to chemical composition

Chairs: Gary Fuller, Thomas Kuhlbusch

Room: B (Leo+Virgo)

10:30-10:50 **Nanoparticle emissions from road vehicles in Asian and European cities and allied health implications**

Prashant Kumar, Roy M. Harrison,

10:50-11:10 **Long-term Variations of Particle Sources in Beijing, China**

J. Gu, S. Breitner, A. Schneider, M. Hu, Z. J. Wu, Z. B. Wang, A. Wiedensohler, B. Wehner, U. Franck, J. Soentgen, A. Peters, J. Cyrys

11:10-11:30 **Road tunnels - particle properties, wet and dry conditions**

S. Janhall, M. Gustafsson, S. Abbasi, G. Blomqvist, A. Gudmundsson, C. Johansson, M. Norman, U. Olofsson, B. Sjövall

11:30-11:50 **Particle Number Size Distribution Statistics at Urban and Suburban Background and Remote Sites in Greece during Summer**

S. Vratolis, M. Gini, D. Siakavaras, S. Bezanteros, I. Stavroulas, N. Kalivitis, E. Kostenidou, E. Louvaris, G. Biskos, N. Mihalopoulos, S. Pandis, C. Pilinis, K. Eleftheriadis

11:50-12:10 **Highly time- and size-resolved measurements of trace elements in London during ClearfLo**

S. Visser, M. Furger, U. Flechsig, K. Appel, R. Dressler, P. Zotter, J. G. Slowik, A. S. H. Prevot, U. Baltensperger

12:10-12:30 **Exposure of schoolchildren to traffic-related air pollution: the HEAPS study**

Martine Van Poppel, Evi Dons, Luc Int Panis, S. De Prins, G. Koppen, Christina Matheussen, Patrick Berghmans

12:30-12:50 **Aerosol particles from smoking, cooking, and various pyrotechnical devices: laboratory characterization and detection in a football stadium**

P. Faber, F. Drewnick, S. Borrmann

Reserve paper **Exposure of air pollutants inside vehicles while driving in road tunnels**

S. Silvergren, M. Norman, C. Johansson, B. Sjövall

10:30-12:50 **Session: Aerosol Modelling**

Modelling atmospheric aerosols

Chairs: Risto Makkonen, Ari Asmi

Room: C (Aquarius+Taurus)

10:30-10:50 **Linking climate change and air quality over Europe: Effects on aerosol concentrations**

A. G. Megaritis, C. Fountoukis, S. N. Pandis

10:50-11:10 **Particle Number Concentrations over Europe in 2030: The Role of Emissions and New Particle Formation**

L. Ahlm, J. Julin, C. Fountoukis, S. N. Pandis, I. Riipinen

11:10-11:30 **Predictions of aerosol extinction coefficients over Greece by means of a new modular software system**

P. E. Charalampidis Haralabidis, C. Pilinis, C. Fountoukis, A. Panagiotopoulou, S. N. Pandis

- 11:30-11:50 **Mitigation of Arctic warming by controlling European black carbon emissions (MACEB): modelling results**
J.-P. Pietikäinen, K. Kupiainen, Z. Klimont, A.-P. Hyvärinen, A. Laaksonen, H. Lihavainen
- 11:50-12:10 **Modeling biogenic secondary organic aerosol formation in the subarctic**
E. Hermansson, P. Roldin, A. Rusanen, D. Mogensen, S. Madronich, A. Hodzic, E. Swietlicki, M. Boy
- 12:10-12:30 **Taking the step from bulk to size-segregated aerosol description: Modelling of size distributions with the EMEP/MSC-W model**
M. Karl, S. Tsyro
- 12:30-12:50 **Contribution of primary emissions, secondary organic aerosol and nucleation on global aerosol number concentrations in NorESM**
R. Makkonen, Ø. Seland, A. Kirkevåg, T. Iversen, J. E. Kristjánsson
- Reserve paper **Climate and biofuels in Brazil**
H. Vuollekoski, R. Makkonen, A. Asmi, R. Hillamo, T. Petäjä, M. Kulmala

10:30-12:50 Session: Indoor and Working Place Aerosols

Chemistry / Instrumentation

Chairs: Mihalis Lazaridis, Philip Hopke

Room: D (Kepler)

- 10:30-10:50 **The Effects of Mainstream and Sidestream Environmental Tobacco Smoke Composition for Enhanced Condensational Droplet Growth by Water Vapor**
X. Tang, Z. Zheng, H. S. Jung, A. Asa-Awuku
- 10:50-11:10 **A study on SVOC aerosol evaporation and its possible implications on workplace sampling**
G. C. Dragan, E. Karg, D. Breuer, M. Blaskowitz, H. Nordsieck, J. Schnelle-Kreis, R. Zimmermann
- 11:10-11:30 **Household products and indoor air quality: emission, reactivity and by-products in both gaseous and particulate phases**
A. Mème, M. Nicolas, L. Chiappini, C. Rio, J. Nicolle, S. Rossignol, B. D'Anna
- 11:30-11:50 **Personal monitor for engineered nanoparticles using a MEMS cantilever balance**
S. Merzsch, H. S. Wasisto, I. Kirsch, A. Waag, E. Peiner, E. Uhde
- 11:50-12:10 **Test of indoor air cleaners**
B. Malgaard, A. J. Koivisto, T. Hussein, K. Hämeri
- 12:10-12:30 **Use of portable particle counters for the assessment of residential exposure to indoor-generated particles**
A. Wierzbicka, G. Bekö, J. Toftum, G. Clausen
- 12:30-12:50 **Chemical composition of hookah smoke derived aerosol measured with an Aerosol Chemical Speciation Monitor**
P. L. Croteau, J. T. Jayne, D. R. Worsnop, T. Oh, C. DeForest Hauser
- Reserve paper **An experimental approach to measure particle deposition in large circular ventilation ducts**
G. Da, E. Géhin, M. Ben-Othmane, M. Havet, C. Solliet, C. Motzkus

10:30-12:50 **Session: Aerosol-based Nanotechnology**

Nanoparticle synthesis in the gas phase

Chairs: A. Schmidt-Ott, S. Pratsinis

Room: E (Tycho)

10:30-10:50 **“Anti-agglomeration of spark discharge generated aerosols via unipolar air ions”**

Kyu-Tae Park, Massoud Massoudi Farid, Jungho Hwang

10:50-11:10 **A Controlled Spark Generator for Increased Nanoparticle Production**

T. V. Pfeiffer, P. Keijzer, A. Schmidt-Ott

11:10-11:30 **Experimental study on the transition from spark to arc discharge with respect to nanoparticle production**

E. Hontanon, J. M. Palomares, M. Stein, X. Guo, R. Engeln, H. Nirschl, F. E. Kruijs

11:30-11:50 **Enclosed Flame Spray Pyrolysis: Control of Product Particle Characteristics by the Air Entrainment**

O. Waser, S. E. Pratsinis

11:50-12:10 **Flame spray synthesis of amorphous Indium-Zinc Oxide (IZO) nanoparticles and their electrical and optical properties - towards an application in field effect transistors**

D. Kilian, S. Polster, M.P.M. Jank, L. Frey, W. Peukert

12:10-12:30 **Parametric study of iron and iron-oxide nanoparticle synthesis via Aerosol Spray Pyrolysis**

G. Kastrinaki, S. Lorentzou, G. Karagiannakis, A. G. Konstandopoulos

12:30-12:50 **Aerosol synthesis of silicon germanium hybrid and alloy nanoparticles**

C. Mehlinger, B. Butz, E. Spiecker, W. Peukert

Reserve paper **Synthesis of tailored organic-inorganic nanostructures by charge controlled coagulation**

S. Sigmund, E. Akgün, J. Meyer, M. Wörner, G. Kasper

10:30-12:50 **Special Session: Particle-Lung Interactions**

Bioaerosols and health

Chairs: Jeroen Buters, Otto Hanninen

Room: F (Stella)

10:30-10:50 **Daily values of bio-aerosols relevant in allergy: the biological exposome**

J. T. M. Buters, I. Weichenmeier, G. Pusch, E. Bartusel, D. Kupresanin, H. Behrendt, C. Schmidt-Weber

10:50-11:10 **Association of fungal tracers with biomass burning activity in northern Vietnam**

S. H. Chen, G. Engling

11:10-11:30 **Airborne influenza virus survival in the air environment**

O. Pyankov, O. Pyankova, E. V. Usachev, I. E. Agranovski

11:30-11:50 **Toxicological effects of the particulate emissions from diesel engines and wood combustion are affected by used technology**

P. I. Jalava, M. S. Happonen, T. Brunner, I. Oberberger, T. Murtonen, P. Aakko-Saksa, J. Maki-Paakkanen, J. Jokiniemi, M.-R. Hirvonen

11:50-12:10 **Long-term effects of repeated exposure to fine and ultrafine particles on lung epithelial cells and fibroblasts**

L. Boublil, M. C. Borot, L. Martinon, J. Sciare, A. Baeza-Squiban

12:10-12:30 **Exposure and harm to combustion-derived particles:
searching for biomarkers**

K. A. BeruBe, I. A. Guschina, A. J. Wlodarczyk, Z. Prytherch, T. Jones, E. Karg, O. Sippula

12:30-12:50 **Studying the causes of health effects of combustion-derived
aerosol in the framework of the HICE-Virtual Helmholtz**

Institute: First results on ship diesel and wood combustion aerosols

R. Zimmermann, T. G. Dittmar, T. Kanashova, J. Buters, S. Öder, H. Paur, C. Schlager, S. Mülhopt, M. Dilger, C. Weiß, S. Diabate, H. Harndorf, B. Stengel, R. Rabe, K. Hiller, S. C. Sapccariu, K. A. BeruBe, A. J. Wlodarczyk, O. Sippula, B. Michalke, T. Krebs, M. Kelbg, J. Tiggesbäumker, T. Streibel, E. Karg, S. Scholtes, J. Schnelle-Kreis, J. Lintelmann, M. Sklorz, M. Arteaga Salas, S. Klingbeil, J. Orasche, P. Richthammer, L. Müller, M. Elsasser, A. Rheda, B. Werner, J. Passig, T. Gröger, G. Abbaszade, C. Radischat

Reserve paper **Aerosol Deposition Measurement in the Model of Human Lungs**

F. Lizal, J. Jedelsky, J. Adam, M. Belka, M. Jicha

12:50-14:00 Lunch break

14:00 Free afternoon



Thursday, September 5th

9:00-10:00 **Plenary lecture: Nucleation of vapours-molecular content of critical clusters and activation of nanoparticles**

Plenary speaker: Paul E. Wagner

Plenary chairs: Ian Ford, Vladimír Ždímal

Room: A (Meridian)

10:00-10:30 **Coffee break**
Room: Conference foyer

10:30-10:50 **Session: Atmospheric Aerosols**

Aerosol cloud interaction

Chairs: Martin Gysel, Martina Krämer

Room: A (Meridian)

10:30-10:50 **Evaporation and condensation of semivolatile aerosol compounds in the DMT-CCN counter**

S. Romakkaniemi, A. Jaatinen, A. Laaksonen, A. Nenes, T. Raatikainen

10:50-11:10 **Long-term hygroscopic properties of ambient aerosol in a boreal environment, as measured by the size-resolved Cloud Condensation Nuclei counter (CCNc)**

M. Paramonov, M. Äijälä, P. P. Aalto, A. Asmi, N. Prisle, V.-M. Kerminen, M. Kulmala, T. Petäjä

11:10-11:30 **Mass spectrometric analysis of cloud droplet residuals in different orographic clouds**

J. Schneider, S. Mertes

11:30-11:50 **What controls cloud droplet number concentration of trade wind cumuli?**

F. Ditas, B. Wehner, H. Siebert, T. Schmeißner, M. Simmel, H. Wex, A. Wiedensohler

11:50-12:10 **Size-dependent aerosol activation properties measured in radiation and stratus lowering fog during the ParisFog 2012/13 field campaign**

E. Hammer, J. Hofer, M. Gysel, G. Roberts, N. Bukowiecki, J. C. Dupont, F. Burnet, M. Hoeffelin, U. Baltensperger, E. Weingartner

12:10-12:30 **Assessment of cloud maximum supersaturation by size-resolved CCN measurements**

M. Krüger, D. Rose, Y. Cheng, H. Su, C. Pöhlker, J. Schneider, S. Schmidt, T. Klimach, S. Mertes, M. O. Andreae, U. Pöschl

12:30-12:50 **Comprehensive Investigations on the Ice Nucleation Efficiency of Natural Soil Dust Samples**

K. Höhler, I. Steinke, D. Cziczo, A. Danielczok, F. Frank, S. Garimella, O. Möhler, M. Raddatz, M. Schnaiter, O. Stetzer, E. Toprak

Reserve paper **Effect of local pollutant sources on aerosol-cloud interactions at Puijo measurement station**

H. Portin, A. Leskinen, A. Kortelainen, L. Hao, P. Miettinen, A. Jaatinen, S. Romakkaniemi, A. Laaksonen, K. E. J. Lehtinen, M. Kompula

10:30-10:50

Session: Atmospheric Aerosols

Turbulent exchange, transport and transformation

Chairs: Andreas Held, Birgit Wehner

Room: B (Leo+Virgo)

- 10:30-10:50 **Natural surfactants promote the uptake of soot-particles in aerosols**
T. Hede, C. Leck, L. Sun, Y. Tu, H. Ågren
- 10:50-11:10 **Annual cycle of Background Aerosol at Troll Station, Antarctica**
M. Fiebig, D. Hirdman, C. R. Lunder, J. A. Ogren, A. Stohl
- 11:10-11:30 **Monitoring ship emissions with continuous onshore SMPS measurements**
N. Kivekäs, R. Lange, A. Massling, Q. T. Nguyen M. Glasius, A. Kristensson
- 11:30-11:50 **Analysis of particle size distribution changes between three measurement sites in Northern Scandinavia**
R. Väänänen, E.-M. Kyro, T. Nieminen, N. Kivekäs, H. Junninen, A. Virkkula, M. Dal Maso, H. Lihavainen, Y. Viisanen, B. Svenningsson, T. Holst, A. Ameth, P. P. Aalto, M. Kulmala, V.-M. Kerminen
- 11:50-12:10 **Airborne measurements of aerosol particle physical, optical and chemical properties in Finland**
E. Asmi, D. Brus, S. Carbone, R. Hillamo, J. Hatakka, T. Laurila, H. Lihavainen, E. Rouhe, S. Saarikoski, Y. Viisanen
- 12:10-12:30 **Annual measurement of size resolved particle fluxes in an urban environment**
M. J. Deventer, O. Klemm, F. Griebbaum
- 12:30-12:50 **New methods to quantify the contributions of rainout, washout and dry deposition to the total deposition flux of atmospheric aerosol on horizontal urban surfaces**
P. Lagoumnie, D. Maro, P. Roupsard, S. Percot, L. Solier, V. Ruban, M. Rozet, D. Hébert, O. Connan
- Reserve paper **Air mass back trajectories and dry atmospheric aerosol mass size distributions in Prague**
J. Schwarz, L. Stefanová, W. Maenhaut, J. Smolík, V. Ždímal

10:30-10:50

Session: Combustion Aerosols

Engines related emissions

Chairs: J. Pagels, T. Rönkkö

Room: C (Aquarius+Taurus)

- 10:30-10:50 **Oxidation reactivity of (bio)diesel generated soot**
H. Bladt, N. P. Ivleva, R. Niessner
- 10:50-11:10 **Can scooter emissions dominate urban organic aerosol?**
I. El Haddad, S. M. Platt, A. A. Zardini, J. G. Slowik, M. Clairotte, C. Astorga, P. Barmet, R. Chirico, J. Dommen, U. Baltensperger, A. S. H. Prévôt
- 11:10-11:30 **Transformation of Black Carbon Aerosol in the Atmosphere – Observations from Smog Chamber Studies and Ambient Air**
J. H. Pagels, A. C. Eriksson, J. Rissler, E. Z. Nordin, C. Wittbom, P. T. Nilsson, A. Kristensson, R. Poldin, B. Svenningsson, E. Swietlicki
- 11:30-11:50 **Effect of atmospheric ageing on volatility and ROS of biodiesel exhaust nano-particles**
Alimohammad Pourkhesalian
- 11:50-12:10 **Real-world nanoparticle emissions of passenger cars and heavy duty diesel vehicles**
T. Rönkkö, L. Pirjola, P. Karjalainen, S. Saari, J. Keskinen

- 12:10-12:30 **Chemical composition of particulate and gas emissions from a 4-stroke marine diesel engine operated with heavy and distillate fuel oils**
O. Sippula, B. Stengel, M. Sklorz, T. Streibel, R. Rabe, H. Harndorf, J. Orasche, J. Lintelmann, B. Michalke, G. Abbaszade, C. Radtschat, J. Schnelle-Kreis, R. Zimmermann
- 12:30-12:50 **Effects of secondary organic aerosols from gasoline exhaust on healthy and diseased respiratory epithelia**
M. Krapf, L. Künzi, N. Daher, J. Dommen, S. Schneider, N. Jeannot, S. Platt, J. G. Slowik, A. S. H. Prévôt, M. Kalberer, C. Sioutas, U. Baltensperger, M. Geiser
- Reserve paper **Characterisation of solid and semi-volatile gas-turbine particulate matter using a catalytic stripper**
J. J. Swanson, T. J. Johnson, J. S. Olfert, M. P. Johnson, P. I. Williams, G. J. Smallwood, A. M. Boies

10:30-10:50 Session: Electrical Effects

Electrical effects

Chairs: Andrei Bologa, Caner Yurteri
Room: D (Kepler)

- 10:30-10:50 **Effects of induced gas flow on electrospray dynamics**
A. K. Arumughan, Jordi Grifoll, Joan Rosell-Ulompert
- 10:50-11:10 **Reduction of fine particle emissions from small scale wood chips combustion boiler by use of compact electrostatic precipitator**
A. Bologa, M. Ecker, H.-P. Rheinheimer, K. Woletz, H.-R. Paur
- 11:10-11:30 **The formation of solid charged aerosol particles at the destruction of metal bodies and bodies of other materials**
A. B. Vatazhin, D. A. Golentsov, V. A. Likhter
- 11:30-11:50 **Generation of negative ion mobility standards using tetra-alkyl ammonium halide salts**
G. Steiner, J. Kangasluoma, M. Breitenlechner, E. Canaval, M. Sipilä, A. Hansel, M. Kulmala
- 11:50-12:10 **A New Effective Unipolar Charger for Calibration and Validation of Commercial Particle Number Measurement Systems**
B. Grob, R. Niessner
- 12:10-12:30 **The Unipolar Charging Rate and Bipolar Charge Distribution for Nonspherical Particles**
Ranganathan Gopalakrishnan, Christopher J. Hogan Jr.
- 12:30-12:50 **Bipolar diffusion charging of aerosol nanoparticles by means of AC-corona discharge and soft X-ray devices**
P. Kallinger, W. W. Szymanski
- Reserve paper **Diurnal variation of small and large ion concentrations in an urban location**
E. R. Jayaratne, X. Ling, L. Morawska

10:30-10:50 Session: Fundamentals

Nucleation theory and experiments

Chairs: Paul M. Wikler, Yannis Drossinos
Room: E (Tycho)

- 10:30-10:50 **Nucleation in the Presence of Background Aerosol**
Charles Clement
- 10:50-11:10 **Numerical Investigation of the Effect of Hydrodynamic Mixing on Droplet Nucleation and Growth**
A. O. Alshaarawi, G. Scribano, K. Zhou, A. Attili, F. Bisetti

- 11:10-11:30 **Effect of Surface Energy Evolution on Particle Nucleation under GASP Conditions**
D. E. Rosner, M. Arias-Zugasti
- 11:30-11:50 **A heterogeneous nucleation theory with explicit account of vapor adsorption**
A. Laaksonen
- 11:50-12:10 **Heterogeneous Nucleation on Nanometer and Sub-Nanometer Sized Charged Atomic Clusters**
K. Barmounis, A. Maisser, M. B. Attoui, G. Biskos, A. Schmidt-Ott
- 12:10-12:30 **Heterogeneous nucleation of sulfur vapor on tungsten oxide and NaCl nanoparticles: Determination of the radius and the contact angle of critical nucleus**
S. V. Valiulin, V. V. Karasev, S. V. Vassel, A. A. Onischuk, A. M. Baklanov
- 12:30-12:50 **A 19m deep well – a downward thermal diffusion cloud chamber?**
R. F. Holub, P. K. Hopke, J. Hovorka, P. Otahal, V. Ždímal
- Reserve paper **Free energy barrier in the growth of sulfuric acid clusters**
T. Olenius, O. Kupiainen, I. K. Ortega, H. Vehkamäki

12:50-14:00 Lunch break

14:00-16:00 **Session: Aerosol Chemistry**

Heterogeneous chemistry of aerosol

Chairs: Manabu Shiraiwa, Barbara D'Anna

Room: B (Leo+Virgo)

- 14:00-14:20 **Heterogeneous reaction of sulphur dioxide on Eyjafjallajökull's volcanic ash from the 2010 eruption**
Yvan Dupart, Laurence Burel, Pierre Delichere, Christian Geoage, Barbara D'Anna
- 14:20-14:40 **Estimating amorphous deliquescence time scales of SOA from biogenic and anthropogenic precursors: Implications for heterogeneous ice nucleation on glassy aerosols.**
T. Berkemeier, M. Shiraiwa, U. Pöschl, T. Koop
- 14:40-15:00 **Surfactants in cloud activation: do they matter?**
B. Malgaard, J. Hong, M. Paramonov, T. Yli-Juuti, N. L. Prisle
- 15:00-15:20 **Gas-particle partitioning of atmospheric aerosols: Interplay of physical state, non-ideal mixing and morphology**
Manabu Shiraiwa, Andreas Zuend, Allan K. Bertram, John H. Seinfeld
- 15:20-15:40 **Role of organic and inorganic salts in atmospheric nanoparticle growth: a modelling study**
T. Yli-Juuti, K. Barsanti, L. Hildebrandt Ruiz, A.-J. Kielaaho, U. Makkonen, T. Petäjä, T. Ruuskanen, M. Kulmala, I. Riipinen
- 15:40-16:00 **Secondary organic aerosol production potential from diesel and gasoline vehicle exhaust under different ambient conditions**
S. M. Pieber, S. M. Platt, I. El Haddad, A. A. Zardini, R. Suarez-Bertoa, J. G. Slowik, R. Huang, S. Hellebust, B. Temime-roussel, N. Marchand, L. Drinovec, G. Mocnik, U. Baltensperger, C. Astorga, A. S. H. Prévôt
- Reserve paper **Uptake of N2O5 to citric acid aerosol particles**
G. Grzinić, T. Bartels-Rausch, A. Türler, M. Ammann

14:00-16:00 **Session: PMx**

Source-specific emissions of carbonaceous aerosol from combustion processes

Chairs: Willy Maenhaut, Heinz Burtscher
Room: C (Aquarius+Taurus)

14:00-14:20 **Thermal/Optical Analysis of Major Elements (C, H, N, S, and O) for Particles from Different Emission Sources**

X. L. Wang, J. A. Robles, X. F. Yang, L.-W. A. Chen, J. C. Chow, J. G. Watson

14:20-14:40 **Assessing the Wintertime Contribution of Biomass Smoke to Organic Aerosol at 15 Sites in Switzerland by Analysing Filter Samples Using Aerosol Mass Spectrometry**

K. R. Dailenbach, I. El-Haddad, P. Zotter, J. Slowik, F. Canonaco, V. G. Ciobanu, A. Piazzalunga, P. Fermo, U. Baltensperger, S. Szidat, A. S. H. Prévôt

14:40-15:00 **Carbonaceous Aerosols Emitted from Light-Duty Vehicles Operating on Ethanol Fuel Blends**

M. D. Hays, R. Baldauf, B. J. George, J. Schmid, R. Snow, T. Long, W. Preston

15:00-15:20 **Emissions of a GDI vehicle operating with different composition engine oils**

L. Pirjola, T. Lähde, A. Malinen, J. Heikkilä, P. Karjalainen, T. Rönkkö, K. Kulmala, J. Keskinen

15:20-15:40 **Biodiesel with controlled physicochemical properties, a means to further reduce diesel engine particle emissions**

M. M. Rahman, A. M. Pourkhesalian, S. Stevanovic, M. J. Islam, H. Wang, B. Miljevic, P. Phamxuan, R. J. Brown, A. Masri, Z. D. Ristovski

15:40-16:00 **Preliminary measurement results on aerosol emission from materials combustion**

M. Targosz, C. Chivas-Joly, L. Saragoza, C. Motzkus, F. Gaie-Levrel

Reserve paper **Atmospheric tar balls: primary droplets from biomass burning?**

Á. Tóth, A. Hoffer, I. Nyirő-Kósa, M. Pósfai, A. Gelencsér

14:00-16:00 **Session: Particle-Lung Interactions**

Exposure and dosimetry

Chairs: Werner Hofmann, George Ferron
Room: F (Stella)

14:00-14:20 **Hygroscopic Particle Deposition Model for Rat Lungs**

G. A. Ferron, S. Upadhyay, R. Zimmermann, E. Karg

14:20-14:40 **Uptake of PM_{2.5} mass by respiratory tract region and particle size: Hypothetical estimates for the FINRISK Cohort, Helsinki, Finland**

O. Hänninen, R. Sorjamaa, P. Lipponen, L. Kangas, A. Karppinen, T. Yli-Tuomi

14:40-15:00 **Exposure to Particulate Matter and Pulmonary Function Status of Traffic wardens in Two Selected Local Government Areas in South-Western Nigeria**

Godson R.E.E Ana, Oluseye J. Olamijulo

15:00-15:20 **Dynamics of highly concentrated, fresh aerosols during inhalation**

L. Pichelstorfer, W. Hofmann

15:20-15:40 **Mechanistic exposure assessment of ultrafine PM**

D. A. Sorigiannis, Z. Samaras, E. Vouitsis, S. Karakitsios, V. Kalaitzis

15:40-16:00 **Using cloud motion for fast, efficient and realistic in vitro delivery of inhaled drugs to pulmonary cells**

A. G. Lenz, D. Cej, M. Schmidmeir, N. Pfister, G. Burgstaller, B. Lentner, O. Eickelberg, T. Stoeger, S. Meiners, O. Schmid

Reserve paper **Release of fine particles from birch pollen grains following impaction**

N. Visez, M. Choël, G. Loubert, G. Chassard, D. Petitprez

14:00-16:00 **Special Session: Combustion Aerosols**

Composition and health effects

Chairs: Ralf Zimmermann, Olli Sippula

Room: D (Kepler)

14:00-14:20 **Chemical Properties of Combustion Aerosols: An Overview**

M. D. Hays

14:20-14:40 **Chemical, physical and toxicological properties of biomass combustion aerosols**

M.-R. Hirvonen, J. Jokiniemi

14:40-15:00 **Biological effects of ship diesel exposure on human bronchial epithelial cells – effects of gas phase vs. particle phase of different fuels at the air liquid interface**

S. Oeder, O. Sippula, B. Stengel, R. Rabe, H. Harndorf, H. Paur, C. Schlager, E. Karg, T. Streibel, C. Schmidt-Weber, R. Zimmermann, J. T. M. Buters

15:00-15:20 **Health relevant compounds in wood combustion and ship diesel aerosols: Evaluation of the toxicity due to polycyclic aromatic hydrocarbons**

J. Orasche, T. G. Dittmar, T. Kanashova, J. Buters, S. Öder, H. Paur, C. Schlager, S. Mühlhopt, M. Dilger, C. Weiß, S. Diabate, H. Harndorf, B. Stengel, R. Rabe, K. Hiller, S. C. Sapccariu, K. A. Berube, A. J. Włodarczyk, O. Sippula, J. Jokiniemi, M.-R. Hirvonen, B. Michalke, T. Krebs, M. Kelbg, J. Tiggesbäumker, T. Streibel, E. Karg, G. Abbaszade, S. Scholtes, J. Schnelle-Kreis, J. Lintelmann, M. Sklorz, M. Arteaga Salas, S. Klingbeil, P. Richthammer, L. Müller, M. Elsasser, A. Rheda, B. Werner, J. Passig, T. Gröger, C. Radtschat, R. Zimmermann

15:20-15:40 **Air-liquid interface exposure systems for the assessment of toxicity of combustion aerosols**

H.-R. Paur, S. Mühlhopt, M. Dilger, C. Schlager, T. Krebs, R. Zimmermann, S. Diabaté, C. Weiss

15:40-16:00 **Oxidative potential of particulate matter in a major urban environment**

Frank J. Kelly, Ben Barratt, Cathryn Tonne, Ian Mudway

Reserve paper **A novel set-up for source characterization and human exposures of biomass combustion aerosols**

R. Nyström, E. Z. Nordin, J. H. Pagels, A. Blomberg, T. Sandström, C. Boman

14:00-16:00 **Session: Atmospheric Aerosols**

Biomass burning and bioaerosols

Chairs: J. Schneider, M.R. Alfarra

Room: A (Meridian)

14:00-14:20 **Particle characterisation during biomass burning events in Tasmania, Australia**

F. Reisen, C. P. Meyer, M. D. Keywood, S. Crumeyrolle

14:20-14:40 **Biomass burning layers measured during the Deep Convective Clouds and Chemistry experiment (DC3) with an airborne Single Particle Soot Photometer (SP2)**

K. Heimerl, B. Weinzierl, A. Minikin, D. Sauer, D. Fütterer, M. Lichtenstern, H. Schlager, J. P. Schwarz, M. Z. Markovic, A. E. Perring, D. W. Fahey, H. Huntrieser

14:40-15:00 **Airborne lidar observations of mineral dust and biomass burning aerosols**

F. Marengo, K. Turnbull, B. Johnson, J. Haywood, P. Rosenberg, L. Garcia-Carreras, J. B. McQuaid, V. Amiridis, E. Marinou, A. Tsekeri

- 15:00-15:20 **Primary particles and marker compounds from wood combustion in household stoves**
M. Maasikmets, E. Teinmaa, K. Vainumäe, L. Parts, L. Lehes, T. Arumäe, V. Kimmel
- 15:20-15:40 **The comparison of long-term changes in the bioerosol components in Southwestern Siberia in the near-ground atmospheric layer and at the altitudes of 500 - 7000 m**
A. S. Safatov, G. A. Buryak, V. A. Vechkanov, I. S. Andreeva, S. T. Olkin, I. K. Reznikova, V. M. Generalov, M. Yu. Arshinov, B. D. Belan, D. V. Simonenkov, G. N. Tolmachev
- 15:40-16:00 **Filtration and inactivation of aerosolized bacteriophage MS2 with air ions and electric field**
J. Hyun, Y.-H. Joe, J. Hwang
- Reserve paper **Measurements During The South American Biomass Burning Analysis (SAMBBA) Field Experiment**
J. D. Allan, W. T. Morgan, P. I. Williams, M. Flynn, E. Darbyshire, A. Hodgson, B. T. Johnson, J. M. Haywood, S. Freitas, K. Longo, P. Artaxo, H. Coe

14:00-16:00 **Special Session: Aerosol Modelling, Atmospheric Aerosols**

European Year of Air Quality 2013

Chairs: Alexander Schladitz, Markus Pesch, Sabine Wurzler
Room: E (Tycho)

- 14:00-14:20 **Experimental and modeling analyses of emission measurements for a heavy-duty diesel bus: the comparison between on-road and in-lab methods**
Y. J. Wang, Z. Tong, T. Rönkkö, J. Keskinen, L. Piriola, K. M. Zhang
- 14:20-14:40 **Source apportionment of sub-micron particles in the urban background by Positive Matrix Factorization**
H. Yu, U. Quass, H. Kaminski, T. A. J. Kuhlbusch
- 14:40-15:00 **Air quality in a Mediterranean city-port: Particulate matter source apportionment using the WRF-CAMx modeling system**
A. Poupkou, N. Liora, A. Karagiannidis, T. Giannaros, D. Melas, A. Argyriou
- 15:00-15:20 **Size specific distribution of the atmospheric particulate persistent organic pollutants (POPs) on a seasonal scale**
Céline Degrendele, Krzysztof Okonski, Lisa Melymuk, Linda Landlová, Petr Kukučka, Jana Klánová
- 15:20-15:40 **Modelling multiphase night-time processes with WRF-Chem**
D. Lowe, S. Archer-Nicholls, W. Morgan, S. Utembe, G. McFiggans
- 15:40-16:00 **Air quality modeling of mega cities in Yangtze River Delta region**
L. L. Tang, B. Zhu, Y. J. Zhang, L. Tang
- Reserve paper **Characterising the influence of anthropogenic emissions on regional background aerosols at the puy de Dome station in France**
E. J. Freney, E. Asmi, M. Hervo, C. Rose, A. Colomb, K. Sellegri

16:00-16:30 **Coffee break**
Room: Conference foyer

16:00-18:00 **Poster Session C - authors' presentations**

19:30 **Conference Dinner**
Venue: Municipal House



Friday, September 6th

9:00-10:00 **Plenary lecture: Urban aerosol: tendencies and challenges**

Plenary speaker: Imre Salma

Plenary chairs: Willy Maenhaut, Kostas Eleftheriadis

Room: A (Meridian)

10:00-10:30 **Coffee break**

Room: Conference foyer

10:30-12:50 **Session: Atmospheric Aerosols**

Aerosol-cloud interaction and climate effects of aerosols

Chairs: Helmut Horvath, Martin Gysel

Room: A (Meridian)

10:30-10:50 **Simplifying the water-affinity and CCN activation of complex organic aerosols: A model study**

I. Riipinen, N. Rastak, S. N. Pandis

10:50-11:10 **Marine Cloud Brightening - do implementation assumptions change its effectiveness?**

A. K. L. Jenkins, P. M. Forster

11:10-11:30 **The importance of organic compounds for the first aerosol indirect effect: sensitivity to cloud formation parameterizations and meteorological fields**

R. E. P. Sotiropoulou, E. Tagaris

11:30-11:50 **Local geological topsoil dust in the area of Rome: linking mineral composition, aerodynamic size and optical properties**

A. Pietrodangelo, R. Salzano, C. Bassani, S. Pareti, C. Perrino

11:50-12:10 **Modeling aerosol water uptake in the Arctic and its direct effect on climate**

N. Rastak, A. Ekman, S. Silvergren, P. Zieger, U. Wideqvist, J. Ström, B. Svenningsson, P. Tunved, I. Riipinen

12:10-12:30 **Pre-Industrial Atmospheric Black Carbon Concentrations in North America**

Liaquat Husain, Tanveer Ahmed

12:30-12:50 **Global model simulations of the impact of transport sectors emissions on atmospheric aerosol and climate**

M. Righi, J. Hendricks, R. Sausen

Reserve paper **Variations of levels of atmospheric electrical and meteorological parameters and natural radioactivity in response to heavy smog due to forest fires**

M. S. Cherepnev, A. V. Vukolov, I. I. Ippolitov, M. V. Kabanov, P. M. Nagorsky, Yu. A. Phalagov, S. V. Smirnov, V. S. Yakovleva

10:30-12:50 **Session: Atmospheric Aerosols**

Mineral dust, marine aerosols and others

Chairs: Alfred Wiedensohler, Francisco Jose Olmo

Room: B (Leo+Virgo)

10:30-10:50 **Below-cloud scavenging by snow and mixed precipitation events calculated from high temporal resolution in situ measurements**

G. Depuydt, O. Masson, J. L. Brenguier, C. Piot, J. L. Jaffrezo

10:50-11:10 **Diurnal and seasonal variations of (nano)aerosols in the Škocjan Caves, Slovenia, a natural treasure of planet Earth**

I. Grgič, I. Iskra, B. Podkrajšek, V. Debevec Gerjevič

11:10-11:30 **Aerosol Processes in PAH Infiltration and Population Exposure in Rome**

P. Lipponen, O. Hänninen, R. Sorjamaa, M. Gherardi, M. P. Gatto, A. Gordiani, A. Cecinato, P. Romagnoli, C. Gariazzo

11:30-11:50 **Two years of measured vertical profiles in the Arctic (Svalbard Islands): results from 2011-2012 spring-summer campaigns**

L. Ferrero, D. Cappelletti, B. Moroni, V. Vitale, R. Udisti, G. Sangiorgi, M. G. Perrone, M. Busetto, C. Lanconelli, M. Mazzola, A. Lupi, S. Becagli, R. Traversi, D. Frosini, M. Maturilli, R. Neuber, C. Ritter, J. Graeser, M. Fierz, G. Mocnik, E. Bolzarchini

11:50-12:10 **EMEP intensive measurements on mineral dust in PM₁₀, summer 2012 and winter 2013**

W. Aas, X. Querol, F. Lucarelli, A. Alastuey, N. Pérez, H. Areskoug, V. Balan, J. N. Cape, M. Catrambone, D. Ceburnis, S. Conil, L. Gevorgyan, J. L. Jaffrezo, C. Hueglin, N. Mihalopoulos, M. Mitisinkova, T. Moreno, J.-P. Putaud, V. Riffault, K. Sellegri, G. Spindler

12:10-12:30 **The effect of hexanoic acid on the hygroscopic properties of sodium halide aerosols**

Lorena Miñambres, Estibaliz Méndez, María N. Sánchez, Fernando Castaño, Francisco J. Basterretxea

12:30-12:50 **Marine Aerosol Hygroscopicity and Volatility, Measured on the Chatham Rise (New Zealand)**

L. Cravigan, M. Mallet, Z. D. Ristovski, P. Vaattovaara, N. Talbot, G. Olivares, M. Harvey, C. Law

Reserve paper **Assessment of emission sources in an industrial area using instrumental and biomonitoring techniques**

J. Lage, S. M. Almeida, M. A. Reis, P. C. Chaves, M. C. Freitas, T. Ribeiro, S. Garcia, J. P. Faria, B. G. Fernández, H. Th. Wolterbeek

10:30-12:50 **Session: Fundamentals**

Aerosol properties and dynamics

Chairs: Christopher J. Hogan Jr., Charles Clement

Room: D (Kepler)

10:30-10:50 **Evolution of the charge state z and the cross section W of mobility-selected protein ions held for tens of ms at temperatures from 25 to 100° C**

J. Fernandez de la Mora, M. Attoui

10:50-11:10 **Evaluation of the role played by multiple scattering on the radiative properties of soot fractal aggregates**

J. Yan, F. Liu, A. Bescond, C. Caumont-Prim, C. Rozé, F.-X. Ouf, A. Coppalle

11:10-11:30 **The role of the scaling-law prefactor in the morphology of fractal aggregates**

A. D. Melas, A. G. Konstandopoulos, L. Isella, Y. Drossinos

- 11:30-11:50 **The Collision Frequency of Fractal-like Aerosols in the Free Molecular Regime**
M. L. Eggersdorfer, S. E. Pratsinis
- 11:50-12:10 **Collision Cross Section Calculation and Differential Mobility Analysis-Mass Spectrometry (DMA-MS) of Po-210 and Electro spray Generated Ions**
Carlos Larriba-Andaluz, Hui Ouyang, Mark J. Meredith, Derek R. Oberreit, Christopher J. Hogan Jr.
- 12:10-12:30 **A new approach to the theory of Brownian coagulation**
M. S. Veshchunov, I. B. Azarov
- 12:30-12:50 **Oblique Impact Fragmentation of Nanoparticle Agglomerates**
M. Gensch, A. P. Weber
- Reserve paper **Evaporation and growth dynamics of layered droplets: Theory and experiments**
H. H. Tu, A. K. Ray

10:30-12:50 **Session: Aerosol Chemistry**

Chemical characterisation techniques for aerosols

Chairs: Markus Kalberer, Rami Alfarra

Room: C (Aquarius+Taurus)

- 10:30-10:50 **Novel Viscosity Measurement Technique for Atmospheric Aerosols using Fluorescence Lifetime Imaging Microscopy (FLIM)**
C. Fitzgerald, N. Hosny, M. Kalberer, M. Kuimova, F. Pope
- 10:50-11:10 **Extractive electro spray ionisation: A novel mass spectrometry technique for the online characterisation of organic aerosol composition and reactivity**
P.J. Gollimore, M. Kalberer
- 11:10-11:30 **A Unique On-line Method to Infer Water-Insoluble Particulate Mass-Fractions**
Daniel Short, Michael Giordano, Yifang Zhu, Phillip Fine, Andrea Polidori, Akua Asa-Awuku
- 11:30-11:50 **Surface site density versus nucleation rate approaches of formulating ice formation in clouds – a comprehensive analysis based on AIDA cloud simulation experiments**
O. Möhler, N. Hiranuma, K. Höhler, C. Hoese, M. Hummel, M. Niemand, C. Oehm, T. Schmitt, I. Steinke, R. Wagner
- 11:50-12:10 **X-ray study of freshly emitted carbonaceous nano-aerosols by synchrotron radiation**
F.-X. Ouf, F.-A. Barreda, A. Coppalle, D. Ferry, X.-J. Liu, B. Marcollaud, C. Miron, J.-B. A. Mitchell, T. Mostefaoui, C. Nicolas, M. Patanen, P. Parent, E. Robert, O. Sublemontier, J. Yan
- 12:10-12:30 **Micro-Raman monitoring of photoevolution and hygroscopicity of single particles by using an environmental acoustic levitation cell**
Y. A. Toban, M. Moreau, S. Sobanska, J. Barbillat
- 12:30-12:50 **Measurements of Oxidized Organic Compounds using Nitrate Chemical Ionization Time-of-Flight Mass Spectrometry coupled to an Atmospheric Pressure interface (NO₃-CI-APi-ToF)**
P. Massoli, A. Lambe, T. Hohaus, M. Canagaratna, P. Chaabro, H. Stark, J. Kimmel, J. Jayne, D. Worsnop
- Reserve paper **Quantitative single particle mass spectrometry with the Aerodyne aerosol mass spectrometer: development of a new classification algorithm and application to field data**
F. Freutel, F. Drewnick, J. Schneider, T. Klimach, S. Borrmann

10:30-12:50 **Session: Particle-Lung Interactions**

PM toxicity

Chairs: Otmar Schmid, Jenny Rissler

Room: E (Tycho)

10:30-10:50 **Translocation of fluorescently labelled SiO₂ nanoparticles across human bronchial epithelial monolayers**

I. George, S. Vranic, S. Boland, A. Baeza-Squiban

10:50-11:10 **Air-liquid interface exposure system for in vitro toxicological studies of wood combustion aerosols**

S. Mülhopt, M. Dilger, C. Schlager, R. Zimmermann, S. Diabaté, C. Weiss, H.-R. Paur

11:10-11:30 **Effect of flue gas scrubber on the toxicological effects of particulate samples from a recovery boiler**

S. Kasurinen, O. Uski, P. Jalava, M. Happonen, I. Nuutinen, M. Kortelainen, H. Koponen, J. Tirkkonen, K. Kuuspallo, A. Leskinen, K. Lehtinen, J. Jokiniemi, M.-R. Hirvonen

11:30-11:50 **Nanotoxicological studies in the Air-Liquid Interface using engineered metal NPs – Protein corona, gene analysis and dose response**

C. R. Svensson, S. Ameer, J. H. Pagels, T. Cedervall, M. Käredal, L. Ludvigsson, K. Broberg, B. O. Meuller, M. E. Messing, J. Rissler

11:50-12:10 **Aerosol characterisation of e-cigarettes**

R. Cabot, A. Koc, C. U. Yurteri, J. J. McAughy

12:10-12:30 **Ecotoxicity of various types of urban particulate matter**

B. Jancsek-Turóczy, A. Hoffer, Á. Tóth, N. Kováts, A. Ács, A. Gelencsér

12:30-12:50 **The respiratory toxicity of coal fly ash**

T. P. Jones, P. Brown, K. A. BeruBe

Reserve paper **Trace elements bioaccessibility in fine and ultrafine particles from the industrial area of Dunkirk (France) during the NANO-INDUS project**

S. Mbengue, L. Alleman, P. Flament

12:50-14:00 Lunch break



Complete Solutions for Ambient Sampling



Skypost PM HV

Sequential outdoor sampler for:

- PM10, PM2.5, PM1
- Total Particulate Matter
- Heavy metals



Delta MK2

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Portable constant flowrate sampler, suitable for dust and gas sampling, both in stack and in ambient



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PM10/PM2.5 low volume sampler, available for single filter or 2 lines sequential sampling



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High Volume sampler for:

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Poster Session A

Monday, September 2nd

Room: Zenit + Nadir

16:00-18:00 Authors' Presentations

Room: Zenit + Nadir

Atmospheric Aerosols

- A001 **Effective density measurements of different fresh soot types**
M. Abegglen, B. Sierau, A. A. Mensah, J. Wang, L. Durdina, M. Gysel, U. Lohmann
- A002 **Atmospheric aerosol size distribution during winter period in Ostrava-Radvanice**
A. Baranova, J. Hovorka
- A003 **Aerosol source analysis approach for a rural background site – identifying the chemical fingerprints of anthropogenic and biogenic aerosols**
M. Äijälä, H. Junninen, M. Ehn, T. Petäjä, M. Kajos, R. Väinänen, F. Canonaco, J. Slowik, A. Prévôt, P. Aalto, M. Kulmala, D. Worsnop
- A004 **Monitoring of transatlantic particles over São Paulo (Brazil) by sun-photometry, ground-based lidar and CALIOP**
J. L. Guerrero-Rascado, F. J. S. Lopes, E. Landulfo, L. Alados-Arboledas
- A005 **Measurements of aerosol light-scattering enhancement factors at the urban environment of Granada (Spain)**
G. Titos, H. Lyamani, A. Cazorla, Z.J. Wu, M. Sorribas, I. Foyo-Moreno, J. Cheng, H.J. Liu, A. Wiedensohler, L. Alados-Arboledas
- A006 **Relating the wavelength dependency of the absorption coefficient and the aerosol type**
A. Cazorla, G. Titos, H. Lyamani, L. Alados-Arboledas
- A007 **Evaluation of AERONET precipitable water vapour versus microwave radiometry, GPS and balloon-borne radiosondes at ARM sites**
Daniel Pérez-Ramírez, Alexander Smirnov, Hassan Lyamani, David Whiteman, Brent Holben, Lucas Alados-Arboledas
- A008 **Aerosol Impact on cloud properties in Pakistan**
K. Alam, R. Khan
- A009 **Remote Sensing of Aerosol optical property Over the Arabian Gulf**
F. M. Al-Kandari, H. K. Al-Jassar, K. S. Rao
- A010 **Organic Fraction of Laboratory Generated Primary Marine Aerosol**
A. C. Butcher, S. M. King, T. Rosenoern, M. Bilde
- A011 **Contribution of Fugitive Emissions in an Industrial Area of Portugal**
S. M. Almeida, A. V. Silva, S. M. Garcia, A. I. Miranda
- A012 **Saharan dust contribution to PM10 levels and composition in Cape Verde**
S. M. Almeida, M. Almeida-Silva, C. A. Pio, T. Nunes, J. Cardoso, M. Cerqueira, M. A. Reis, P. C. Chaves, A. Taborada
- A013 **Homologous series of organic compounds in aerosols impacted by sugar cane burning in São Paulo State, Brazil**
R. C. Urban, C. A. Alves, A. A. Cardoso, A. G. Allen, M. L. A. M. Campos

- A014 **Emissions of carbonaceous aerosols and volatile organic compounds by light-duty vehicles on a chassis dynamometer**
C. A. Alves, A. I. Calvo, D. Lopes, D. Custódio, S. Rocha, T. Nunes, M. Evlyugina, A. Charron, M. Goriaux, P. Tassel, P. Perret
- A015 **Hydrocarbons in smoke samples from wildfire events in central Portugal in summer 2010**
A. M. Vicente, C. A. Alves, S. D. G. Acioli, A. P. Fernandes, T. Nunes, A. C. Monteiro, C. A. Pio
- A016 **Evaluation of CMA as dust suppressant in Barcelona: Preliminary results from the AIRUSE LIFE+ Project**
F. Amato, A. Karanasiou, A. Alastuey, T. Moreno, F. Lucarelli, S. Nava, G. Calzolai, M. Chiari, M. Keuken, X. Querol
- A017 **Temporal variation of urban atmospheric aerosol during smog episodes in Debrecen, Hungary**
A. Angyal, Zs. Kertész, Z. Ferenczi, E. Furu, Z. Szoboszlai, Zs. Török, Z. Szikszai
- A018 **Aerosol profile retrieval algorithm development and validation for Sentinel-4**
A. Apituley, O. Vieitez, B. Sanders, P. Stammes, B. Veheilmann, Y. Meijer, R. Koopman
- A019 **Modelling and impact of aerosols on climate variability over central Africa**
A. J. M. Komkoua, C. Tchavoua
- A020 **Subgrid variability of CCN sized aerosol**
A. Asmi, R. Väinänen, R. Kredij, A. Minikin
- A021 **Multi-criteria ranking and source apportionment of airborne particles**
G. A. Ayoko, A. J. Friend
- A022 **A study of aerosol production at the cloud edge with direct numerical simulations**
N. Babkovskaia, M. Boy, S. Smolander, S. Romakkaniemi, M. Kulmala
- A023 **The effect of cloudiness on new particle formation: investigation of radiation levels**
E. Baranzadeh, A. Arola, A. Hamed, T. Nieminen, A. Virtanen, M. Kulmala, A. Laaksonen
- A024 **Influence of Mineral Dust Transport from North Africa in the Concentration and Size Distribution of Aerosol in León (Spain)**
E. Alonso-Blanco, A. I. Calvo, A. Castro, C. Alves, R. Fraile
- A025 **UFIREG-Ultrafine particles and health**
S. Bastian, G. Löschau, J. Cyrus, J. Novak, M. Gobec, B. Mykhalchuk
- A026 **Influence of stable weather on aerosol concentration and size distribution at K-puszta, Hungary**
A. Molnár, Zs. Bécsi
- A027 **Wintertime distribution of PAH with aerosol particle size in two cities in the Czech Republic**
J. Bendl, J. Hovorka, J. Topinka
- A028 **Hygroscopic Properties and Mixing State of Ultrafine Aerosol Particles over the Eastern Mediterranean Background Site of Finokalia**
S. Bezanதாகas, A. Bougiatioti, I. Stavroulas, K. Eleftheriadis, N. Mihalopoulos, A. Nenes, G. Biskos
- A029 **Climatology of dust events at Mt. Cimone (2165 m a.s.l.), Italy**
L. Bourcier, G. Zaccaria, A. Marinoni, P. Cristofanelli, R. Duchi, D. Putero, T. C. Landi, F. Calzolari, P. Bonasoni
- A030 **2011 Observations of Stratospheric Aerosol over Hampton, VA related to the Nabro volcanic Eruption in Africa**
N. Boyouk, P. M. McCormick, M. Hill, K. Leavor
- A031 **Size-Resolved Source Apportionment of PM10 Organic Aerosol Measured with Aerosol Mass Spectrometry**
C. Bozzetti, I. El Haddad, R. Wolf, E. Bruns, A. Krepelova, K. Dällenbach, J. G. Slowik, U. Baltensperger, A. S. H. Prévôt
- A032 **CANCELLED**

- A033 **Lidar depolarization evolution during the CHARMEX intensive field campaign**
J. A. Bravo-Aranda, M. J. Granados-Muñoz, F. Navas-Guzmán, J. L. Guerrero-Rascado, F. J. Olmo, L. Alados-Arboledas
- A034 **Ground-based observations of aerosol and cloud properties at sub-arctic Pallas GAW-station**
D. Brus, K. Neitola, E. Asmi, M. Aurela, U. Makkonen, J. Svensson, A.-P. Hyvärinen, A. Hirsikko, H. Hakola, R. Hillamo, H. Lihavainen
- A035 **The concentrations of organic/elemental carbon and total protein in atmospheric aerosol of the near-ground atmospheric layer of Southwestern Siberia in the summer of 2012**
G. A. Buryak, A. S. Safatov, S. E. Olkin, I. K. Reznikova, V. I. Makarov, S. A. Popova, M. P. Shinkorenko, B. S. Smolyakov
- A036 **Identification and characterization of black carbon aerosol sources in Lithuania**
S. Byčėnkiene, V. Ulevičius, V. Dudaitis, J. Andriejauskienė
- A037 **Influence of humidity on aerosol concentrations in a subtropical region**
L. Caetano-Silva, A. G. Allen, M. Lima-Souza, A. A. Cardoso
- A038 **CANCELLED**
- A039 **Sugar markers in biomass burning particles from a Brazilian agro-industrial region**
R. C. Urban, A. A. Cardoso, A. G. Allen, M. E. C. Queiroz, C. A. Alves, M. L. A. M. Campos
- A040 **Long-term time series of daily PM10 chemical composition in the area of Rome, Italy**
M. Catrambone, S. Dalla Torre, E. Rantico, T. Sargolini, C. Perrino, the Med-Particles Study Group
- A041 **Organic characterization of particulate material from a Brazilian agro-industrial region impacted by biomass burning**
R. C. Urban, A. A. Cardoso, A. G. Allen, M. E. C. Queiroz, C. A. Alves, M. L. A. M. Campos
- A042 **Thermal-optical analysis of elemental carbon (EC) in environmental samples – differences observed when using various protocols**
E. C. Cetintas, M. Kistler, C. Schmidl, H. Bauer, A. Kasper-Giebl
- A043 **Coupling optical and chemical properties of primary and secondary carbonaceous aerosols**
F. Costabile, S. Gilardoni, F. Barnaba, M. Rinaldi, S. Ferrari, V. Poluzzi, G. P. Gobbi
- A044 **Black carbon contribution to the particle matter in Madrid City during a local winter episode**
E. Coz, M. Becerril, Z. Chang, J. Pérez-Guldris, A. S. H. Prévôt, G. Ramos, B. Artiñano
- A045 **Major ions particle size distribution from Baía de Todos os Santos, Northeastern Brazil**
G. O. da Rocha, J. S. S. Domingos, A. C. D. Regis, J. V. S. Santos, J. B. de Andrade
- A046 **Extreme dust storms in Iceland**
P. Dagsson-Waldhauserova, H. Olofsson, O. Arnalds
- A047 **Measurements of particulate matter hygroscopicity in Aerosol Exposure Chamber to prevent atmospheric corrosion in Data Center**
L. D'Angelo, G. Rovelli, L. Ferrero
- A048 **Effect of the extensive use of fireplaces on carbonaceous particle concentration levels in Athens, Greece**
E. Diapouli, V. Vasilatou, S. Vratolis, M. Gini, D. Saraga, Th. Maggos, K. Eleftheriadis
- A049 **Distribution of aerosol over coal strip mine**
V. Dacekalova, J. Hovorka, F. Kobrzek, P. Marecek
- A050 **Spatial-temporal variability of particle number concentrations between a busy street canyon and the urban background**
V. Dos Santos-Juusela, T. Petäjä, A. Kousa, K. Hämeri

- A051 **Airborne Aldehydes as Altitude-Distributed Source of Particulate Matter in the Troposphere**
S. N. Dubtsov, T. A. Maksimova, G. G. Dultseva
- A052 **The comparison of the light scattering coefficient measured in urban and coastal environments**
V. Dudaitis, V. Ulevicius, K. Plauškaite, G. Mordas
- A053 **Variations of PM10 and its relationship with 7Be and 210Pb measurements at Malaga (Southeastern coast of Spain)**
C. Dueñas, M. C. Fernández, E. Gordo, E. Liger, S. Cañete, M. Pérez
- A054 **Atmospheric fluxes of radionuclides on monthly time-scale in Malaga (Spain)**
C. Dueñas, M. C. Fernández, E. Gordo, S. Cañete, E. Liger, M. Pérez
- A055 **The comparative analysis of variations of background radiation components and atmospheric electrical parameters**
M. S. Cherepnev, I. I. Ippolitov, M. V. Kabanov, P. M. Nagorsky, S. V. Smirnov, A. V. Vukolov, V. S. Yakovleva
- A056 **13C measurements on organic aerosol – ambient samples versus source studies**
U. Dusek, C. Meusinger, B. Oyama, W. Ramon, P. A. de Wilde, R. Holzinger, T. Röckmann
- A057 **Road Pavement Abrasion as the Source of Particulate Matter**
Dušan Jandačka, Daniela Durčanská
- A058 **Time-resolved organic speciation at the Theodore Roosevelt National Park, North Dakota, USA**
A. Eiguren, G. Lewis, N. Kreisberg, D. R. Worton, A. H. Goldstein, S. V. Hering
- A059 **Water activity measurement of pure and mixed organic/inorganic solutions**
M. M. Fard, and M. Bilde
- A060 **Can lung-deposited surface area measurements serve as surrogate for black carbon?**
M. Fierz, D. Meier, C. Hüglin, H. Burtcher
- A061 **Regional-scale modeling of organic aerosol composition in Europe: Insights from comparison with aerosol mass spectrometer factor analysis**
C. Fountoukis, A. G. Megaritis, K. Skyllakou, P. E. Charalampidis, C. Pilinis, S. N. Pandis
- A062 **CANCELLED**
- A063 **Year-round measurement of PM1 aerosol and its chemical composition in the Swiss high Alps using the Time-of-Flight Aerosol Chemical Speciation Monitor (ToF-ACSM)**
R. Fröhlich, M. J. Cubison, J. G. Slowik, A. S. H. Prévôt, U. Baltensperger, U. Rohner, M. Gonin, J. R. Kimmel, D. R. Worsnop, J. T. Jayne
- A064 **Aerosol Activation and Scavenging during the Cloudy Test Campaign at the CERN CLOUD chamber**
C. Fuchs, J. Tröstl, J. Duplissy, E. Weingartner, U. Baltensperger, the CLOUD collaboration
- A065 **The effect of the tramway track building on the aerosol pollution in Debrecen, Hungary**
E. Furu, I. Katona-Szabo, A. Angyal, Z. Szoboszlai, Zs. Török, Zs. Kertész
- A066 **Contribution of fossil and modern carbon to PM2.5 and CO2 in the atmosphere of Debrecen, Hungary**
I. Major, E. Furu, I. Hajdas, Zs. Kertész, M. Mihalý
- A067 **The impact of extreme weather events on air quality in Budapest, Hungary**
V. Gácsi, A. Molnár
- A068 **Seasonal variation of urban aerosols in a sub-Saharan city: case study of Nairobi, Kenya**
S. M. Gaito, J. Boman, J. B. C. Pettersson, M. J. Gatari, S. Janhäll

- A069 **Stable carbon isotopic values ($\delta^{13}\text{C}$) of biofuel in Lithuania**
A. Garbaras, A. Lipovec, A. Masaloite, V. Remeikis
- A070 **Atmospheric aerosol episodes over Lithuania after the May 2011 volcano eruption at Grímsvötn, Iceland**
K. Kvietkus, J. Šakalys, J. Didžbalis, I. Garbariene, N. Špirkauskaitė, V. Remeikis
- A071 **Quantifying the relative contribution of different aerosol types over Eastern Mediterranean: A decadal high resolution satellite view**
A. K. Georgoulas, K. A. Kourtidis, G. Alexandri, P. Zanis, U. Pöschl
- A072 **CLACE 2013: Cloud microphysics and physico-chemical characterization of ice residuals in mixed-phase clouds**
P. Kupiszewski, E. Weingartner, R. Färber, M. Gysel, E. Hammer, C. Fuchs, U. Baltensperger, P. Vochezer, M. Schnaiter, C. Linke, E. Toprak, S. Mertes, J. Schneider, T. Klimach, S. Schmidt
- A073 **The UPUPA project: Ultrafine Particles in the Urban Piacenza Area, Italy**
M. Giugliano, G. Lonati, S. Ozgen, G. Ripamonti
- A074 **DIAPASON: an user-oriented EC-LIFE+ Project to quantify the role of Saharan dust on European PM10 levels**
G. P. Gobbi, F. Barnaba, F. Costabile, L. Di Liberto, C. Tirelli, R. Sozzi, A. Bolignano, M. Morelli
- A075 **Testing of aerosols in Barentsburg area (Spitsbergen)**
L. P. Golobokova, D. G. Chernov, U. S. Turchinovic, V. V. Polkin
- A076 **The Spanish network on environmental DMAs: the 2012 SMPS+UFP intercomparison campaign and study on particle losses in dryers**
F. J. Gómez-Moreno, E. Alonso, B. Artiñano, V. Juncal Bello, M. Piñeiro Iglesias, P. López Mahía, N. Pérez, J. Pey, A. Alastuey, B. A. de la Morena, M. I. García, S. Rodríguez, M. Sorribas, G. Titos, H. Lyamani, L. Alados-Arboledas
- A077 **The potential role of ion-induced nucleation at a coniferous forest site in north eastern Bavaria**
S. G. Gonsler, F. Klein, W. Birmili, J. Groß, A. Held
- A078 **Analysis of aerosol hygroscopic properties by combination of lidar, microwave radiometer and radiosounding data**
M. J. Granados-Muñoz, F. Navas-Guzmán, J. A. Bravo-Aranda, J. L. Guerrero-Rascado, A. Valenzuela, J. Fernández-Gálvez, L. Alados-Arboledas
- A079 **Hygroscopic growth parameterization of aerosol particles based on high humidity measurements in the Po-Valley, Italy**
J. Groß, I. Pap, W. Birmili, A. Hamed, A. Wiedensohler
- A080 **Mixture of biomass-burning and urban aerosols analysis: a case study**
Marius Mihai Cazacu, Florin Unga, Adrian Timofte, Ioana Popovici, Alin Ionut Pascaru, Dan Dimitriu, Silviu Gurliu
- A081 **Characterization of fine particles using Aerosol mass spectrometer during intensive campaign in three different sites in Kanto basin in summer of 2011**
H. Hagino, and T. Morikawa, S. Hasegawa, S. Yonemochi, K. Sekiguchi, K. Kumagai, N. Yamaguchi, A. Iijima, H. Shimodera, H. Hayami
- A082 **Hygroscopicity of sub-6 nm sodium chloride particles**
J. Hakala, J. Kangasluoma, T. Petäjä
- A083 **Semi-empirical parameterization for sub-20 nm particle growth**
S. A. K. Hakkinen, H. E. Manninen, T. Yli-Juuti, J. Merikanto, M. K. Kajos, T. Nieminen, S. D. D'Andrea, A. Asmi, J. R. Pierce, M. Kulmala, J. Riipinen
- A084 **New particle formation at rural and mountain stations in north Italy: A comparative study during the joint PEGASOS and Supersito campaign**
A. Hamed, S. Decesari, S. Gilardoni, S. Niemelä, L. Tarozzi, C. Carbone, P. Vaattovaara, J. Joutsensaari, P. Cristofanelli, A. Marinoni, P. Bonasoni, G. Bonafe, D. Bacco, I. Ricciardelli, A. Virtanen, S. Ferrari, V. Poluzzi, M. C. Facchini, A. Laaksonen

- A085 **Secondary New Particle Formation in Central Europe: Eight years of Aerosol Particle Size distribution data from Melpitz Site, Germany**
A. Hamed, Z. Wang, W. Birmili, G. Spindler, A. Wiedensohler
- A086 **Measurement of atmospheric organic nitrate aerosols and its application in cloud events**
L. Q. Hao, S. Romakkaniemi, A. Kortelainen, A. Jaatinen, H. Portin, P. Miettinen, M. Komppula, A. Leskinen, J. N. Smith, D. Sueper, D. R. Worsnop, K. E. J. Lehtinen, A. Laaksonen, A. Virtanen
- A087 **Ultrafine particle concentrations: importance of local sources and new particle formation in two central European cities**
A. Wonschuetz, R. Wagner, J. Aschauer, R. Haindl, W. Ludwig, G. Zecha, J. Ondráček, P. Vodička, N. Ziková, V. Ždímal, J. Schwarz, R. Hitznerberger
- A088 **Absorbing aerosol long-term trend at Mukteshwar, a pristine location in Central Himalayas foothills**
Rakesh K. Hooda, A.-P. Hyvärinen, V. P. Sharma, M. Komppula, E. Asmi, Y. Viisanen and H. Lihavainen
- A089 **Vertical profiles of aerosol optical properties and wavelength dependent absorption at Maldives Climate Observatory Hanimaadhoo**
F. Höpner, F. Bender, P. S. Praveen, V. Ramanathan
- A090 **Spatial variations and source apportionment of the marine organic aerosol over the Atlantic Ocean**
S. Huang, L. Poulain, Z. J. Wu, H. Herrmann, A. Wiedensohler
- A091 **Chemical composition, concentration, size distribution and diurnal variation of atmospheric aerosol particles at the background and urban sites in Lithuania**
K. Kvietkus, J. Sakalys, J. Didžbalis, E. Meinore
- A092 **Surface Aerosol Monitoring at Hada Al Sham, Western Saudi-Arabia**
A.-P. Hyvärinen, M. Alghamdi, T. Hussein, M. Khodeir, A. Shehata, H. Lihavainen, M. Kulmala, A. Laaksonen
- A093 **Chemical composition, and mass closure of Siberia aerosols at ZOTTO, Russia, April 2010 to February 2011**
X. Chi, E. Mikhailov, A. Panov, M. O. Andreae
- A094 **Estimation of emission rates of resuspended road dust using a mobile monitoring system**
Sehyun Han, Yongwon Jung
- A095 **One-year monitoring of nitro-organic compounds in biomass burning PM10 filter samples**
A. Kahnt, S. Behrouzi, R. Vermeylen, M. Safi Shalamzari, J. Vercauteren, W. Maenhaut, M. Claeys
- A096 **A case of CCN formation associated with atmospheric nucleation in eastern Mediterranean**
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- A226 **Effect of local pollutant sources on aerosol-cloud interactions at Puijo measurement station**
H. Portin, A. Leskinen, A. Kortelainen, L. Hao, P. Miettinen, A. Jaatinen, S. Romakkaniemi, A. Laaksonen, K. E. J. Lehtinen, M. Komppula
- A227 **Intercomparison of sulphuric acid measurements and neutral cluster composition in the lower free troposphere**
L. Rondo, M. Simon, H. Junninen, J. Duplisy, A. Praplan, A. Adamov, A. Kürten, M. Sipilä, F. Bianchi, J. Tröstl, E. Weingartner, U. Baltensperger, M. Kulmala, J. Curtius
- A228 **Air mass back trajectories and dry atmospheric aerosol mass size distributions in Prague**
J. Schwarz, L. Štefancová, W. Maenhaut, J. Smolik, W. Zdimal
- A229 **Blue sky over the Ruhr – a review of the effectiveness of more than 50 years of air quality measures in Germany**
S. Wurzler, H. Hebbinghaus, P. Bruckmann, J. Friesel, U. Pfeffer

Poster Session B

Tuesday, September 3rd

Room: Zenit + Nadir

16:00-18:00 Authors' Presentations

Room: Zenit + Nadir

Aerosol Chemistry

- B001 Organic Aerosol Formation Photoenhanced by the Formation of Secondary Photo-sensitizers in ageing Aerosols**
Kifle Z. Aregahegn, Barbara Nozière, Christian George
- B002 H₂SO₄ formation from olefin ozonolysis in the presence of SO₂: Influence of water vapour content and temperature**
T. Berndt, T. Jokinen, M. Sipilä, R. L. Mauldin III, H. Herrmann, F. Stratmann, H. Junninen, M. Kulmala
- B003 Development of a method to measure the $\delta^{13}\text{C}$ for OC and EC in PM**
L. Bourcier, B. Geypens
- B004 Secondary organic aerosol formation in the ozonolysis of biogenic volatile organic compounds performed in a laminar flow reactor**
T. Braure, V. Riffault, A. Tomas, M. Duncianu, Y. Bedjanian, P. Coddeville
- B005 Geochemical anomalies in aerosol induced by mining and metallurgical activities in SW Spain**
J. de la Rosa, A. M. Sánchez de la Campa, Y. González-Castanedo, R. Fernández Camacho, J. C. Fernández Caliani, A. Alastuey, X. Querol
- B006 Synthesis and glass formation properties of compounds representative of low-volatility secondary organic aerosol particles**
H. P. Dette, M. Qi, D. C. Schröder, A. Godt, T. Koop
- B007 PM formation processes in the urban atmosphere: comparison between South and North Italy**
P. R. Dambrosio, G. de Gennaro, A. Di Gilio, P. Fermo, R. Gonzalez Turion, A. Piazzalunga
- B008 Formation mechanism and important implications of highly oxidized molecules (HOM) in the gas phase**
M. Ehn, E. Kleist, H. Junninen, M. Sipilä, T. Petäjä, I. Pullinen, M. Springer, S. Andres, M. Rissanen, J. Kontkanen, S. Schobesberger, F. Rubach, R. Tillman, B. H. Lee, F. Lopez-Hilfiker, V.-M. Kerminen, M. Kulmala, D. R. Worsnop, J. Thornton, J. Wildt, T. F. Mentel
- B009 Noise as an indicator of traffic and ultrafine particles in Huelva city**
I. M. Brito Cabeza, R. Fernández-Camacho, J. D. de la Rosa
- B010 Chemical characterization of PM_{2.5} belonging to a port city**
A. Genga
- B011 Temperature dependence of nopinone partitioning coefficient in organic aerosol**
B. Steitz, I. Gensch, T. Hohaus, H. Saathoff, A. Kiendler-Scharr
- B012 How did chemical composition of the Po Valley radiation fog change in the last twenty years?**
L. Giulianelli, M. C. Facchini, S. Gilardoni, S. Decesari, M. Rinaldi, C. Carbone, M. Paglione, S. Fuzzi
- B013 Speciation of metals in refinery emissions particles**
Y. González-Castanedo, D. A. Sánchez Rodas, C. Ferrer, J. de la Rosa

- B014 **Thermal properties of secondary organic aerosols**
A. Lutz, E. U. Emanuelsson, Å. K. Watne, M. Hallquist
- B015 **Diurnal variation of C2-C5 organosulfates detected during PEGASOS field campaign**
Yoshiteru Iinuma, Laurent Poulain, Dominik von Pinxteren, Hartmut Herrmann
- B016 **Reactivity of chlorine radical on palmitic acid particles: kinetic measurements**
M. Mendez, R. Ciuraru, N. Visez, D. Petitprez
- B017 **Characterization and interaction between bacterial community and chemical composition of Particulate Matter in two areas of Po Valley**
E. Innocente, G. Rampazzo, S. Squizzato, V. Bertolini, A. Franzetti, I. Gandolfi, G. Bestetti
- B018 **Raman Microspectroscopic Identification and Characterization of Individual Airborne Volcanic Ash Particles**
N. P. Ileva, S. Hucklele, B. Weinzierl, C. Haisch, T. Baumann, R. Niessner
- B019 **On the oxidation of gaseous iodine at elevated temperatures**
T. Kärkelä, J. Holm, A. Auvinen, C. Ekberg, J. K. Jokiniemi
- B020 **Hygroscopicity of nucleated nanoparticles in the presence of sulfuric acid and organics**
J. Kim, H. Keskinen, P. Vaattavaara, P. Miettinen, J. Joutsensaari, A. Virtanen, CLOUD collaboration
- B021 **Characterization of particulate matter in Kraków, Poland**
M. Kistler, L. Samek, K. Styszko, K. Szramowiat, L. Furman, M. Gerhardus, A. Kasper-Giebl
- B022 **Molecular composition of PM_{2.5} aerosols from Cork Harbour, Ireland using ultrahigh resolution mass spectrometry**
I. Kouritchev, I. P. O'Connor, S. Fuller, K. Kristenen, W. Maenhaut, J. C. Wenger, J. R. Sodeau, M. Glasius, M. Kalberer
- B023 **New experimental tools for characterization of nucleation and reactivity in small aerosols**
J. Lengyel, M. Fárnik, P. Slavíček, T. Zeuch
- B024 **NO_x Effects on Secondary Organic Aerosol Formation of Biogenic and Anthropogenic Organic Gases**
J. H. Park, K. M. Jung, W. G. Woo, W. K. Jo, H. J. Lim
- B025 **Temporal trends in the atmospheric concentration of selected metals in the PM₁₀ aerosol collected in March-September 2010 at Ny-Ålesund (Svalbard Islands)**
M. Malandrino, A. Giacomino, O. Abollino, S. Becagli, D. Frosini, M. Severi, R. Traversi, R. Udisti
- B026 **Within-city variability as a tool for source apportionment of trace elements. Application to the Barcelona metropolitan area**
M. C. Minguillón, M. Cirach, G. Hoek, B. Brunekreef, M. Nieuwenhuijsen, X. Querol
- B027 **Real time chemical characterization of fine particulate matter in a Spanish regional background site**
M. C. Minguillón, A. Ripoll, N. Pérez, X. Querol, A. Alastuey
- B028 **Vertical profiles and seasonal variation of aerosol particles in the PBL upon Ny Ålesund (Svalbard Islands): electron microscopy vs geochemical records**
B. Moroni, S. Becagli, E. Bolzacchini, M. Busetto, L. Ferrero, D. Frosini, C. Lanconelli, A. Lupi, M. Mazzola, R. Traversi, R. Udisti, V. Vitale, D. Cappelletti
- B029 **Secondary organic aerosols (SOA) chemical characterization employing simulated NMR spectra of model compositions**
M. Paglione, F. Moretti, E. Tagliavini, E. Finessi, M. C. Facchini, S. Decesari
- B030 **On the enigma of new particle formation in the atmosphere**
T.-E. Paets, A. Lutz, K. Komsaare, M. Noppel, U. Hörrak
- B031 **Experimental studies of the formation of cluster ions formed by corona discharge in an atmosphere containing SO₂, NH₃ and H₂O**
Preben Hvelplund, Jens Olaf Pepke Pedersen, Kristian Stachkel, Martin B. Enghoff, Theo Kurtén

- B032 **PAHs and ALKs in the Arctic (Svalbard Island) aerosol: results from the AREX2011 oceanographic campaign**
E. Balzacchini, L. Ferrero, F. Marozzi, A. Molinelli, M. G. Perrone, G. Sangiorgi, S. Becagli, R. Traversi, R. Udisti, W. Walczowski, T. Zielinski
- B033 **Chemical characterization of polar organic markers in PM 2.5 during an intensive campaign of Supersito Project in Po Valley (Italy)**
M. C. Pietrogrande, M. Visentin, D. Bacco, S. Ferrari, V. Poluzzi
- B034 **Photodissociation dynamics of CF₂Cl₂ molecule in aerosol particles**
V. Poterya, A. Pysanenko, J. Lengyel, P. Svrčková, J. Kočíšek, M. Fárník
- B035 **Kinetic Measurements in Acoustically Levitated Terpene Droplets**
K. Rastogi, C. Yuan, R. Willoughby, S. Almbrok, C. Pfrang
- B036 **Gas phase sampling and determination of carbonyl compounds in ship diesel emissions: Differences between light fuel oil and heavy fuel oil operation**
Ahmed A. Reda, G. Abbaszade, J. Lintelmann, H. Harndorf, R. Rabe, O. Sippula, T. Streibel, J. Schnelle-Kreis, R. Zimmermann
- B037 **CANCELLED**
- B038 **Regional scale oxidation of organic aerosol observed through HR-ToF-AMS measurements at Mt. Cimone (2165 m asl), Italy**
M. Rinaldi, S. Gilardoni, S. Decesari, S. Fuzzi, S. Ferrari, V. Poluzzi, M. C. Facchini
- B039 **Investigation of the oxidation mechanism of limonene photosensitized by imidazole-2-carboxaldehyde and leading to aerosol growth**
S. Rossignol, J. Tinel, K. Aregahegn, L. Fine, B. Nozière, C. George
- B040 **Impact on Air Quality operations cleaning and inspection of Natural Gas pipelines in Central Mexico**
L. M. Rodríguez, A. M. Sánchez de la Campa, Jesús D. Rosa
- B041 **Characterization of fine particles in the near-field of a metallurgy plant: Overview of the NANO-INDUS project**
A. Setyan, P. Flament, N. Locoge, K. Deboudt, V. Riffault, L. Y. Alleman, C. Schoemaeker, J. Arndt, P. Augustin, F. Blond, F. Cazier, H. Delbarre, D. Dewaele, P. Dewalle, M. Fourmentin, P. Genevray, R. Healy, P. Le Louer, T. Leonardis, H. Marris, S. Mbengue, J. Wenger
- B042 **Organic aerosol: distribution between fog water and interstitial air - a report for two mountainous sites in Germany**
S. Schüttauf, J. Matschullat, F. Zimmermann, D. van Pinxteren, H. Herrmann
- B043 **Modelling the multiphase chemical processing of aerosol constituents in orographic hill cap clouds during HCCT-2010**
A. Tilgner, P. Bräuer, R. Wolke, H. Herrmann
- B044 **Mass distribution of elements among four fractions of suspended dust in Zabrze, Poland**
W. Rogula-Kozłowska, K. Klejnowski, P. Rogula-Kopiec, B. Błaszczak, M. Mathews, S. Szopa
- B045 **Thermal properties of SOA from Ozone and OH induced oxidation of terpenes**
J. Westerlund, Å. K. Watne, Å. M. Hallquist, M. Hallquist
- B046 **Microstructural changes on the carbon functional groups of individual aerosol particles from cooking activities during photochemical oxidation**
E. Coz, I. El Haddad, S. Platt, J. G. Slowik, A. S. H. Prévôt, S. Steimer, G. Grzinić, M. Lampimäki, B. Artfano, M. Ammann
- B047 **Automatic hourly measurements of hydrocarbons (C₂-C₁₁) in Metropolitan Area of Sao Paulo: Spring campaign**
P. A. Dominutti, T. Nogueira, A. Fornaro, M. F. Andrade
- B048 **Chemical composition of PM₁₀ and PM₁ at a remote mountain site in NE of Spain**
A. Ripoll, M. C. Minguillan, J. Pey, X. Querol, A. Alastuey

- B049 **Profiles and seasonal-distribution of PAH and n-alkanes in the urban atmosphere of Elche, Spain**
J. Gil-Moltó, N. Galindo, M. Varea, C. Chofre
- B050 **Organic and elemental carbon in the surroundings of a cement complex in southeastern Spain**
E. Yubero, N. Galindo, S. Nava, M. Chiari, J. Nicolás, G. Calzolai, F. Lucarelli, J. Crespo
- B051 **ATD-GC-MS method for characterization and quantification of organic compounds associated to gunshot particles**
R. Magnusson, L. Hägglund, S. Hedenstierna, H. Wíngfors
- B052 **Differences between inorganic ion concentrations in an urban and a remote background station**
E. Yubero, J. F. Nicolás, N. Galindo, R. Soler, J. Crespo
- B053 **Knudsen Cell measurements applied for the study of gaseous precursors and chemical process**
F. G. Di Lemma, J. Y. Colle, R. J. M. Konings
- B054 **An ICP-MS analysis on aerosol from simulated nuclear fuel, to study the elemental**
F. G. Di Lemma, J. Y. Colle, G. Rasmussen, S. Van Winckel, R. J. M. Konings
- B055 **Saturation vapour pressures of subcooled liquid oxodicarboxylic acids**
I. Crlijenica, T. Yli-Juuti, A. A. Zardini, J. Julin, M. Bilde, I. Riipinen
- B056 **Flow tube analysis of the chemical composition of freshly nucleated secondary organic aerosol particles**
S. G. Gonser, C. Berberich, A. Held
- B057 **Secondary organic aerosol formation from gasoline and diesel vehicle emissions: first results from a new flow reactor**
R. J. Huang, J. G. Slowik, I. El Haddad, S. M. Platt, S. M. Pieber, A. A. Zardini, R. Suarez-Bertoa, S. Hellebust, B. Temime-Roussel, N. Marchand, L. Drinovec, G. Mocnik, C. Astorga, U. Baltensperger, A. S. H. Prévôt
- B058 **Synthesis of Ag triangular nanoplates protected by glutathione and their interaction of hemoglobin**
N. Kinoshita, T. Ito, N. Nishida, H. Tanaka
- B059 **First Steps in Atmospheric Particle Formation**
J. Fedor, J. Lengyel, J. Kocisek, V. Poterya, A. Pysanenko, P. Svrčková, M. Fárnik
- B060 **Interaction of gas-born Ag nanoparticles with DNAs of salmon testes**
M. Shibata, N. Nishida, H. Tanaka
- B061 **Regional modelling of the tropospheric multiphase system using COSMO-MUSCAT: Sensitivity on detail of cloud microphysics and chemical mechanism**
R. Schroedner, A. Tilgner, R. Wolke
- B062 **Extinction characteristics of SOA formed following the photolysis of 2-nitrophenol: A broadband study in the near-ultraviolet**
E. M. Wilson, J. C. Wenger, D. S. Venables
- B063 **Changes of aerosol properties during the ozonolysis of unsaturated carboxylic acids in the absence and presence of oxygen**
C. Keunecke, M. Beck, T. Hoffmann, T. Zeuch

Aerosol Modelling

- B064 Long-Term Variability of Terrestrial, Terpenoid BVOC Emissions in the Last Millennium**
Juan C Acosta, Hamish Struthers, Eduardo Zorita, Annica ML Ekman, Alex Guenther, Ilona Riipinen
- B065 Applications of Multiple Regression Analysis to estimate Aerosol Optical Depth over the Arabian Gulf**
F. M. Al-Kandari, H. K. Al-Jassar, K. S. Rao
- B066 Simulation of ice nucleation in a parcel model**
C. Anquetil-Deck, C. Hoese, P. Conolly
- B067 Modelling Amazonian Biomass Burning Aerosol using WRF-Chem**
S. Archer-Nicholls, D. Lowe, W. Morgan, G. McFiggans
- B068 Modeling the chemical and radiative effects of aerosol during the wildfires of 2007 in Greece**
E. Athanasopoulou, D. Rieger, C. Walter, H. Vogel, B. Vogel, E. Gerasopoulos
- B069 Model simulations on the effects of deposition freezing in convective clouds**
K. Diehl, S. K. Mitra
- B070 On blow-up in some mathematical models related to phase transitions and turbulence**
E. I. Galakhov, O. A. Salieva
- B071 Modeling of optical properties sea-salt aerosol in the surface layer of the marine and coastal atmosphere**
G. A. Kaloshin
- B072 Coupled chemical mechanism and sectional aerosol developments within WRF-Chem**
D. Lowe, S. Archer-Nicholls, S. Utembe, D. Topping, M. Barley, R. Zaveri, G. McFiggans
- B073 WRF CHEM in the marine environment**
E. Miklos, D. Martin, C. D. O'Dowd
- B074 3D modeling of open-pored foams regarding particle deposition from aerosols**
K. Schmidt, A. Hellmann, S. Ripperger
- B075 Modelling the impact of mineral dust on air quality in Beijing during a dust event**
S. Schrader, B. Vogel, H. Vogel, K. Schaefer, R. R. Shen, R. Forkel, P. Suppan, G. Tang, Y. Wang, S. Norra
- B076 The model of propagation of acoustic signal on water surface with precipitated aerosol particles**
L. A. Uvarova, V. V. Zabolotin, I. V. Krivenko, T. V. Kazarova
- B077 Airport emissions characterized by multivariate nonlinear time series models**
G. Valotto, C. Varin, C. Gaetan, E. Pecorari, G. Rampazzo, D. Bassano, S. Sollecito, E. Rampado
- B078 Photophoresis of fractal-like aerosol particles: physical model and methodical approaches**
M. V. Vasiljeva, S. A. Beresnev, L. B. Kochneva, V. I. Gryazin
- B079 Modelling the chemically speciated PM_{2.5} over the French Northern region using the WRF-Chem system coupled to EMEP and regional emission inventories**
M. Mendez, V. Fèvre-Nollet, P. Lebègue, D. Petitprez, N. Visez, R. Borge
- B080 Black carbon and particle number emission factors of different vehicle types measured in real driving conditions**
I. Ježek, D. Westerdal, G. Močnik

- B081 **Modelled and measured aerosol hygroscopicity for aerosol corrosion prevention and energy saving in green data center designing**
L. Ferrero, G. Sangiorgi, M. G. Perrone, M. Moscatelli, L. D'Angelo, G. Rovelli, A. Ariatta, R. Truccolo, E. Bolzacchini
- B082 **CANCELLED**
- B083 **The role of organic condensation on ultrafine particle growth during nucleation events**
D. Patoulias, I. Riipinen, S. N. Pandis
- B084 **Computational modeling of aerosol formation and evolution using OpenFOAM®**
E. M. A. Frederix, A. K. Kuczaj, M. Nordlund, C. Winkelmann, B. J. Geurts
- B085 **CANCELLED**
- B086 **CANCELLED**
- B087 **CANCELLED**
- B088 **Modeling of long-term particle formation and growth in the planetary boundary layer**
L. Zhou, M. Boy, T. Nieminen, D. Mogensen, S. Smolander, M. Kulmala
- B089 **Long range transport and chemical transformation of aerosols over the Aegean Sea during a recent Etesian period**
E. Athanasopoulou, A. Protonotariou, E. Bossioli, J. Allan, A. Dandou, G. Papangelis, H. Coe, A. Bacak, J. Kalogiros, N. Mihalopoulos, G. Biskos, M. Tombrou
- B090 **On the influence of WRF schemes in reconstructing the Planetary Boundary Layer height in the Po Valley**
A. Balzarini, M. Moscatelli, F. Angelini, L. Ferrero, G. Pirovano, G. M. Riva, E. Bolzacchini
- B091 **Multicomponent aerosol modelling with detailed chemical species**
A. Rusanen, M. Boy, S. Smolander, D. Mogensen, P. Roldin, E. Hermansson
- B092 **Phenomenological modelling of particle resuspension on bubbling PMMA**
S. Delcour, F.-X. Ouf, N. Azema, A. Coppalle, J. Yon, L. Ferry, F. Gensdarmes, J.-M. Lopez-Cuesta
- B093 **Ageing of Sodium Combustion Aerosols: a Theoretical and Experimental Study**
E. Mathé, M. P. Kissane, D. Petitprez
- B094 **A modeling study of regional sources contributin to atmospheric PM2.5 of Taiwan**
Tu-Fu Chen, Wen-Yinn Lin, Ken-Hui Chang
- B095 **The Contribution of Local and Regional Sources to Particulate Matter in European Megacities**
K. Skyllakou, A. G. Megaritis, C. Fountoukis, B. N. Murphy, P. E. Haralabidis, S. N. Pandis
- B096 **Transport of aerosol particles from the Fukushima accident**
G. Lujaniene, S. Bycenkiene, P. P. Povinec
- B097 **Cs, Am and Pu isotopes in the atmosphere: source terms and tracer studies**
G. Lujaniene, D. Valulis, S. Byčėnkiene, J. Šakalys, P. P. Povinec
- B098 **Comparison of the results of two air quality models in the simulation of a turbo gas cogeneration plant PM emissions**
P. Ugolini, A. Trentini, G. Bonafé, V. Poluzzi
- B099 **On an influence of a temperature jump on a molecular heat flow which is taken away from a surface of strongly heated solid spherical aerosol particle**
E. R. Shchukin, L. A. Uvarova, N. V. Malay, Z. L. Shulimanova
- B100 **A novel method to determine the growth rate of a growing particle mode**
T. Anttila, J. Leppö, H. Lihavainen
- B101 **Determination of geometrical length of airborne carbon nanotubes by filtration method**
Y. K. Bahk, J. Wang

- B102 **Modelling of aerosol optical properties with CHIMERE and OPAC and validation with Brewer and Cimel measurements at Brussels, Belgium**
V. De Bock, A. Delcloo, A. Mangold, H. De Backer
- B103 **Modelling of air quality: number of particles**
S. Deschamps, K. N. Sarrelet, F. Freutel
- B104 **Influence of the geometry of the aerosol conducting system on the deposition of particles from inhalable aerosols on cellular surfaces in vitro**
C. Brodbeck, D. Ritter, J. Knebel
- B105 **Comparison of the atmospheric Chemistry Transport Model COSMO-MUSCAT with experimentally determined aerosol parameters**
C. Engler, R. Wolke, W. Birmili, A. Wiedensohler
- B106 **Year-round modelling study on particle formation a South African savannah**
R. Gierens, L. Laakso, V. Vakkari, L. Zhou, D. Mogensen, J. P. Beukes, P. G. Van Zyl, M. Boy
- B107 **Binary aerosol droplet formation**
X. Z. Zhen, H.-J. Schmid
- B108 **Modelling the fine and coarse fraction of heavy metals in high resolution Spanish domains**
M. A. González, M. G. Vivanco
- B109 **Measurement and 3D Simulation of NaCl aerosol deposition on electrically charged microfibers**
A. Hellmann, K. Schmidt, M. Pitz, S. Ripperger
- B110 **Black carbon and organic carbon in Finland: Measurements vs. model**
A. Hienola, J.-P. Pietikäinen, D. O'Donnell, K. Saarnio, A. Laaksonen
- B111 **Modelling aerosol agglomeration using molecular dynamics methodology**
G. Inci, A. Kronenburg
- B112 **Identification of atmospheric PM2.5 sources using Non-negative Matrix Factorization modeling in urban-industrial mixed environments**
A. Kfoury, F. Ledoux, A. Limem, G. Delmaire, G. Roussel, D. Courcot
- B113 **Mathematical study of penetration efficiency of aerosol particles for human breathing with protective facemask**
I. T. Mukhometzanov, S. K. Zaripov, A. K. Giffanov
- B114 **Diagrams for drift acceleration of inclusion in acoustic field**
D. A. Gubaidullin, P. P. Osipov
- B115 **Comparison of two airports emissions and pollutants dispersion in urban areas**
E. Pecorari, G. Valotto, S. Squizzato, G. Rampazzo, D. Bassano, S. Sollecito, E. Rampado
- B116 **CANCELLED**
- B117 **A methodology to assess occupational exposure to MNMs by modeling**
M. Pillou, T. Oroz, C. Vaquero Moralejo, P. Neofytou, C. Housiadas
- B118 **The charging of amine containing clusters using protonated acetone**
K. Ruusuvaari, P. Hietala, O. Kupiainen, T. Kurtén, H. Vehkamäki
- B119 **Influence of the inlet particle diameter distribution on the experimental determination of cyclone collection efficiency**
B. Sagot, J. Giardi
- B120 **CANCELLED**
- B121 **Novel informatics software for automated individual aerosol component property predictions and complex ensemble predictions – an online community facility**
D. Topping, M. Bane, M. Barley, D. Lowe, R. Pinning, G. McFiggans

- B122 **Modeling global secondary organic aerosol formation and growth: Integrating the volatility basis set into the EMAC chemistry climate model**
A. P. Tsimpidi, V. A. Karydis, S. N. Pandis, J. Lelieveld
- B123 **Source apportionment of PM_{2.5} concentrations: comparison of source-oriented and receptor-oriented techniques**
G. Pirovano, C. Colombi, G. Lonati, A. Balzarini and G. M. Riva
- B124 **Periodic changes in the parameters of finite coagulating systems with sources and sinks at steady state regime approach**
V. A. Zagaynov, A. Maslov, A. A. Lushnikov, I. E. Agranovski, A. B. Leontyev, Yu. G. Biryukov
- B125 **Efficiency of inertial capture of aerosol particles by porous fiber in cylinder array**
S. K. Zaripov, O. V. Grigorieva, S. A. Soloviev

Aerosol-based Nanotechnology

- B126 **Direct Transfer of Aerosol Particles into Liquid Suspensions**
C. Anderlohr, K. Schaber
- B127 **Dependency of particle size on filtration mechanisms of nanofiber web**
H.-J. Choi, S. B. Kim, S. H. Kim, M.-H. Lee
- B128 **Aerosol Synthesized Porous Catalytic Particles for Emission Control Applications**
G. Kastrinaki, M. Kostoglou, A. G. Konstandopoulos
- B129 **Aerosol nanoparticles captured into colloids by using an electrospray cloud as a filter**
M. Valenti, G. Biskos, A. Kourmouli, A. Schmidt-Ott
- B130 **CANCELLED**
- B131 **The measurement of nanoparticle deposition efficiency in the lungs of Wistar rats**
S. G. Matveeva, A. M. Baklanov, T. G. Tolstikova, S. W. Ankw
- B132 **Experimental study of homogeneous nucleation from the antimony supersaturated vapor**
O. V. Borovkova, A. M. Baklanov, S. V. Vasel, F. B. Baimasheva
- B133 **CANCELLED**
- B134 **Real-time Characterization of Fractal-like Aerosols**
M. L. Eggersdorfer, A. J. Gröhn, C. M. Sorensen, P. H. McMurry, S. E. Pratsinis
- B135 **Potential exposure to nanoplates during blending of halloysite nanoclay powder**
E. Jankowska, J. Łukaszewska, W. Zatorski
- B136 **Dustiness testing of engineered nanomaterials based on ZrO₂ by vortex shaker method**
E. Jankowska, P. Sobiech, J. Łukaszewska, O. Witschger, S. Bau, B. Bianchi
- B137 **An effort towards understanding the sources of impurities in generating nanoparticles via liquid-phase methods**
E. M. Faghghi, L. Morawska, C. He
- B138 **New measurement system for PM and ultrafine particles**
J. Spielvogel, M. Weiß
- B139 **Nanoparticles generation modes of the multi-spark discharge generator**
A. A. Efimov, V. V. Ivanov, I. V. Beketov, I. A. Volkov
- B140 **Size Controlled Synthesis of Spherical Nanoparticles by Spark Discharge**
J. Feng, A. Maisser, T. Pfeiffer, G. Biskos, A. Schmidt-Ott

- B141 **CANCELLED**
- B142 **Fluid-Particle Dynamics of Nanoparticle Synthesis in Flame Spray Reactors**
A. J. Gröhn, S. E. Pratsinis, K. Wegner
- B143 **Generation of Mn oxides nanoparticles**
P. Mikuska, Z. Večeřa, B. Dočekal, P. Moravec
- B144 **Synthesis of N-modified TiO₂ nano powder by plasma spray for visible light photocatalysis**
C. H. Tsai, Y. M. Kuo, Y. I. Tsai, L. C. Wang, Y. F. Wang
- B145 **Experimental study of homogeneous nucleation from the sulfur supersaturated vapor: Evaluation of the surface tension of critical nucleus**
S. V. Valiulin, S. V. Vosel, A. A. Onischuk, V. V. Karasev
- B146 **Cu-Ni spark discharge nanoparticles from alloy feedstock of varied composition**
M. Wagner, M. Seipenbusch
- B147 **Simulation of the flow field in a nanoparticle synthesis spray flame reactor including a particle coating process**
C. Weise, I. Wlokas, A. Kempf
- B148 **Emission spectroscopic investigation of the spark discharge used for Cu nano particle production**
A. Kohut, A. Metzinger, G. Galbács, L. Ludvigsson, B. O. Meuller, M. E. Messing, Zs. Márton, K. Deppert, Zs. Geretovszky
- B149 **Characterization of Carbon Nano-Particles from the Clad of Nuclear Fuel in HTGR with Inherent Safety (I) - Qualitative Analysis**
H. Nishida, G. Iwanaka, H. Takano, M. Itoh
- B150 **Synthesis and characterization of calcium oxide based particles for CO₂ adsorption applications**
K. G. Sakellariou, G. Kastrinaki, G. Karagiannakis, A. G. Konstandopoulos
- B151 **Detection of Airborne Carbon Nanotubes via Embedded Nickel Catalysts in Quasi-Real Time**
N. Neubauer, G. Kasper
- B152 **Acute respiratory response on workers exposure to nanoparticles in different occupational settings**
I. Szadkowska-Stańczyk, S. Bujak-Pietrek, U. Mikołajczyk
- B153 **Testing particulate matter toxicity via in vitro methods: what should be tested?**
A. J. Włodarczyk, K. A. BéruBé
- B154 **The impact of zinc oxide nanoparticles on metabolic activity in the cells of respiratory and reproductive system**
L. Zapór
- B155 **A new device for continuous unattended measurements of UFP**
M. Pesch, H. Grimm, R. Albrecht, A. Edfelder
- B156 **Portable device for simultaneous measurements of Nano particles and its agglomerations at workplaces**
H. Grimm, M. Pesch, M. Richter, A. Comouth
- B157 **Combustion of CNT-containing composite materials in a laboratory scale incinerator**
A. M. Todea, B. Stahlmecke, C. Asbach, T. A. J. Kuhlbusch
- B158 **Characterization of Polyamide Nanofiber Media for Aerosol Filtration Applications**
J. Matulevičius, L. Kliucininkas, D. Martuzevičius
- B159 **Sublimation growth of 3C-SiC in induction heating of preceramic Si-C nanoparticles**
M. Miettinen, J. Hokkinen, T. Karhunen, T. Torvela, U. Tapper, J. Jokiniemi, A. Lähde

- B160 **Generation of Pb/PbOx nanoparticles for inhalation experiments**
P. Moravec, J. Smolík, J. Ondráček, P. Vodička, R. Fajgar
- B161 **Batch-to-batch reproducibility - a challenge for safety assessment and regulation**
H.-R. Paur, N. Adelhelm, S. Diabaté, J. Forsgren, E. Mahon, S. Mühlhopt, J. P. Bagaria, V. Puentes, R. Schneider, C. Weiss, T. Wilkins, Y. Jiang
- B162 **Contrasting manufactured nano objects emitted during maintenance of common particle generators with originally synthesized particles**
P. T. Nilsson, L. Ludvigsson, J. Rissler, M. E. Messing, C. Isaxon, A. C. Eriksson, M. Hedmer, H. Tinnerberg, K. Deppert, A. Gudmundsson, J. Pagels
- B163 **Fragmentation of nanoparticle agglomerates by collisions in supersonic flows**
Y. Okada, N. Oshio, K. Oda, M. Yabuhana
- B164 **High-throughput multi-jet electrospinning for two fluids using a coaxial grooved nozzle**
I. Park, W. Kim, S. S. Kim
- B165 **Impact of size and concentration on the particle charging properties of an annular DBD**
M. Pesch, H. Grimm, T. Külz, M. Richter, R. Albrecht
- B166 **Positioning of nano-sized noble metal aerosols in an organic light-emitting diode for enhanced quantum efficiency**
H.-K. Sung, J.-C. Lee, J.-K. Lee, C. Kim, M. Choi

Combustion Aerosols

- B167 **Penetration of Combustion Aerosol Particles through an N95 FFR Respirator Filter**
S. A. Grinshpun, X. He, J. Y. Kim, T. Reponen
- B168 **Selective catalytic reduction nitrogen oxides with methane over nanosized CuO supported on Al₂O₃. Part 1. Materials structural characterization**
Chang-Mao Hung, Mu-Hsing Kuo, Shui-Jen Chen, Wei-Bang Lin, Wen-Liang Lai
- B169 **Selective catalytic reduction nitrogen oxides with methane over nanosized CuO supported on Al₂O₃. Part 2. Catalytic activity and mechanism study**
Chang-Mao Hung, Mu-Hsing Kuo, Shui-Jen Chen, Wei-Bang Lin, Wen-Liang Lai
- B170 **Selective catalytic reduction nitrogen oxides with methane over nanosized CuO supported on Al₂O₃. Part 3. Reaction kinetic behavior study**
Chang-Mao Hung, Mu-Hsing Kuo, Shui-Jen Chen, Wei-Bang Lin, Wen-Liang Lai
- B171 **Characterization of aerosols emitted during the incineration of nanocomposites**
G. Ounoughene, O. Le Bihan, C. Chivos-Joly, C. Longuet, A. Joubert, C. Matzkus, D. Venditti, S. Durécu, B. Debray, J.-M. Lopez-Cuesta, L. Le Coq
- B172 **Particle Emission from the Aircraft Engine Testing Cycles**
J. J. Rodríguez-Maroto, V. Archilla, D. Sanz-Rivera, E. Rojas-García, M. Pujadas, J. L. Mosquera, D. Mercader, A. Gonzalez (ISDEFE), A. Jimenez, J. Mena, A. Entero (ISDEFE), J. M. Fernández-Maínez, J. C. Bezares
- B173 **Gas-droplet flows in fire safety engineering**
K. Volkov, V. Emelyanov
- B174 **The nanofraction of fly ashes in Swiss waste incineration plants (WIP) and the respective modelled contributions of engineered nanomaterials (ENM)**
J. Buha, N. Müller, B. Nowack, A. Ulrich, J. Wang

- B175 **Tandem-DMA measurements of gases and particles in large-scale biomass combustion and gasification**
D. Gall, M. Pushp, C. Forsman, K. O. Davidsson, M. Hallquist, J. B. C. Pettersson
- B176 **Condensing Heat Exchanger for Fine Particle Precipitation and Efficient Heat Recovery in Small Scale Wood Combustion**
J. Grigonyte, O. Sippula, I. Nuutinen, T. Koponen, H. Lamberg, T. Kaivosoja, J. Jokiniemi
- B177 **Effect on pore size distribution on filtration performance of ceramic filter media**
J.-U. Kim, H.-J. Choi, S.-H. Kim, M.-W Lee
- B178 **Characterizing physical properties of aerosol particles in a bubbling fluidized bed boiler**
H. Kuuluvainen, P. Karjalainen, J. Maunula, J. Kauppinen, M. Räsänen, R. Taipale, P. Vainikka, J. Roppo, J. Keskinen, T. Rönkkö
- B179 **Diagnostics of burning tungsten particles by two-color imaging pyrometry**
S. G. Orlovskaya, F. F. Karimova, M. S. Shkoropado
- B180 **Fate of hazardous elements from biomass burned in stoves and boilers**
Torben Seidel, Hans Ruppert
- B181 **Biomass Combustion in Stoves - Influence on Emissions and Toxic Potential of Particles**
C. Schön, H. Hartmann, J. Gerth
- B182 **Ultrafine particulate matter emissions from a gasoline direct injection engine**
B. R'Mili, A. Boréave, W. Y. Hernandez, M. N. Tsampas, N. Charbonnel, L. Retailleau-Mevel, B. D'Anna, P. Vernoux, M. Leblanc, S. Zinola, S. Raux
- B183 **Fractional cabin air recirculation: A simple and robust way to reduce PM exposure for passengers**
H. Jung, M. Grady
- B184 **Particle emissions of a heavy duty diesel engine fuelled with fossil diesel and hydrotreated vegetable oil**
P. Karjalainen, J. Heikkilä, T. Rönkkö, M. Happonen, F. Mylläri, L. Pirjola, T. Lähde, D. Rothe, J. Keskinen
- B185 **Particle number and size distribution of Euro 5 and Euro 6 passenger cars at 22°C and -7°C**
F. Riccobono, U. Manfredi, G. Martini
- B186 **Investigations on the removal of volatile components from diesel exhaust**
B. Kiwull, J. C. Wolf, R. Niessner
- B187 **Effects of severe congestion on PAH emissions from a heavy vehicle diesel engine**
M. Vojtisek-Lom, M. Pechout, M. Mazač, J. Topinka
- B188 **Emissions of gases and PM2.5 during combustion of wood logs in a stove or a fireplace**
V. Martins, A. I. Calvo, C. Alves, T. Nunes, R. Hillamo, K. Teinilä, M. Duarte, L. Mendes, L. A. C. Tarelho
- B189 **Combustion of forest residues in a bubbling fluidised bed: characterisation of particulate matter emissions**
A. I. Calvo, L. A. C. Tarelho, E. R. Teixeira, R. Modolo, C. Alves, T. Nunes, M. Duarte, E. Coz, D. Custódio, A. Castro, B. Artiñano, R. Fraile
- B190 **Prospecting analysis of soot for post-fire investigation**
A. Bellivier, M. Meneceur, H. Bazin
- B191 **Nanoparticles Emissions from Pottery Manufacturing**
A. Valiotis, S. Bezzantakas, M. Giannarelou, G. Biskas
- B192 **Wildfires in North Spain: Smoke aerosol and its radiative effects**
A. Castro, E. Alonso-Blanco, A. I. Calvo, V. Pont, M. Mallet, C. Alves, R. Fraile

- B193 **Influence of biodiesel-to-diesel addition on major ions and trace elements in fine particulate matter exhausted by a diesel engine**
G. O. da Rocha, J. V. S. Santos, A. C. D. Regis, L. Tormen, A. L. N. Guarieiro, J. D. S. da Silva, A. J. Curtis, J. B. de Andrade
- B194 **Effective density of particulate matter emitted from aircraft gas turbine engine sources**
L. Durdina, B. Brem, M. Abegglen, B. Sierau, J. Wang
- B195 **Particulate matter generated by heating/cooking plants in traditional homes of Mt. Everest region in central southern Himalaya (Nepal)**
P. Fermo, A. Piazzalunga, R. Gonzalez, D. Comunian, G. Tartari, F. Salerno, G. Viviano, P. Ielpo
- B196 **New CO₂ Mitigation Process with Diesel Dynamo Power Plant Associated by Optimized Aerosol Driven Technique**
K. Fukamizu, H. Takano, M. Itoh
- B197 **Investigating the aethalometer model to estimate black carbon and airborne particles from wood burning**
G. W. Fuller
- B198 **CANCELLED**
- B199 **Reduction of PAHs emitted from a generator fuelled by waste-edible-oil-biodiesel with acetone and isopropyl alcohol addition**
Jen-Hsiung Tsai, Shui-Jen Chen, Wen-Yinn Lin, Kuo-Lin Huang, Chih-Chung Lin, Yung-Shun Chen
- B200 **Cytotoxicity of exhaust emissions from a generator fuelled by waste-edible-oil-biodiesel with acetone and isopropyl alcohol addition**
Jen-Hsiung Tsai, Shui-Jen Chen, Kuo-Lin Huang, Wen-Yinn Lin, Yi-Chu Huang, Te-San Chen
- B201 **Characteristics of SO₂ removal by using CaCO₃ sorbent particle in an oxy-PC combustion system**
Seongha Jeong, Kang Soo Lee, Sang In Keel, Jin Han Yun, Sang Soo Kim
- B202 **Dry absorption of SO₂ with hydrated lime in spout-bed circulating dry scrubber system**
Young-Ok Park, Seong-Min Cheon, Yong-Ha Kim
- B203 **Real-time chemical composition analysis of particle emissions from woodchip combustion**
A. Kortelainen, J. Joutsensaari, P. Tiitta, A. Jaatinen, P. Miettinen, L. Hao, J. Leskinen, A. Virén, T. Torvela, J. Tissari, J. Jokiniemi, D. R. Worsnop, A. Laaksonen, A. Virtanen
- B204 **Ash behaviour and emission formation in co-combustion of wood and two agricultural fuels**
M. Kortelainen, J. Tissari, T. Torvela, T. Karhunen, H. Lambert, I. Nuutinen, O. Sippula, J. Jokiniemi
- B205 **Characteristics of the particulate matter from road tunnel environment**
R. Lichinsky, J. Huzlik, J. Faimon, K. Kreislova
- B206 **On the relation between aerodynamic and mobility diameter distributions for aggregates consisting of few monomers**
A. Melas, M. Kostoglou, P. Baltzopoulou, Y. Drossinos, A. G. Konstandopoulos
- B207 **Immunomodulatory effects of short-term exposure to fine particulate matter from smog episode in Ostrava region: in vitro study**
T. Brzicová, I. Lochman, P. Danhelka, A. Lochmanová, K. Lach, V. Miška
- B208 **PAH, PCDD/F and HCB emissions from residential wood combustion**
K. Mäts, M. Maasikmets, E. Teinmaa, K. Vainumäe, L. Lehes, T. Arumäe, V. Kimmel
- B209 **Toxicological Responses to Ozone Aging of Aerosols from Small-scale Biomass Combustion**
E. Z. Nordin, O. Uski, R. Nyström, P. Jalava, J. Genberg, A. C. Eriksson, C. Bergvall, R. Westerholm, C. Boman, J. Jokiniemi, J. Pagels, M.-R. Hirvonen

- B210 **Fourier-transform-ion-cyclotron-resonance mass spectrometry with laser-desorption-ionization of primary ship diesel exhaust particles**
C. Rüger, T. Schwemer, M. Sklorz, R. Zimmermann
- B211 **Removal Characteristics of Iron Particles by Ceramic Candle Filters and the Effect of the flue Gas Inlet Configuration in Particulate Collectors**
Y. O. Park, N. Hasolli
- B212 **Chemical profile of wood burning PM_{2.5} and PM₁ in the two largest cities of Greece, Athens and Thessaloniki**
St. Pateraki, Th. Maggos, D. A. Sarigiannis, M. Kermenidou, S. K. Karakitsios, V. D. Assimakopoulos, A. Zagkos, D. N. Assimakopoulos
- B213 **Emissions of volatile organic compounds from ritual burning practices**
Shamsh Perver, Rajan Chakraborty, Barbara Zielinska, Shippi Devangan
- B214 **Particle and gas phase distribution of toxic metals during biomass combustion**
D. Pudasainee, H.-R. Paur, A. Bolog, H. Seifert
- B215 **Laboratory particle-phase emissions from sugarcane burning: chemical and mutagenicity**
E. R. Dias, K. F. Souza, D. A. Morales, F. Kummrow, G. A. Umbuzeiro, L. R. F. Carvalho
- B216 **Characterisation of different soot types regarding morphology and black carbon content**
H. Saathoff, A. Comouth, B. Altstädter, C. Linke, A. Kiselev, K.-H. Naumann
- B217 **Characterization of indoor and outdoor aerosol during extreme pollution events from winter heating in single-family home districts**
I. Stasiulaitiene, E. Krugly, L. Kliučininkas, T. Prasauskas, M. Tichonovas, A. Garbaras, D. Martuzevičius
- B218 **Verifying modified EAD (MEAD) used in measuring metal fume nanoparticle and charactering its exposure concentration during gas metal arc and flux cored arc welding processes**
P. J. Tsai, Y. F. Wang
- B219 **Particle size distributions of PAHs in workplace atmospheres and their exposure concentrations to workers in a steel and iron manufacturing factory**
Y. F. Wang, P. J. Tsai
- B220 **Comprehensive analysis of anthropogenic aerosol using automated classification for GCxGC-TOF analysis**
B. A. Weggler, J. Orasche, T. Groeger, R. Zimmermann
- B221 **Physical and chemical characterisation of PM emissions from in-operation ship engines**
J. Moldanová, E. Fridell, H. Winnes, J. Boman, V. Tishkova, B. Demirdjian, S. Joulie, H. Bladt, N. Ivaleva
- B222 **Exposure to airborne (1-3)-B-D-glucans during metalworking processes**
M. Cyprowski, A. Lawniczek-Walczyk, R. L. Górný
- B238 **Nanoparticle release from nanostructured powders during low- and high-energetic dry dispersing processes**
D. Göhler, M. Stintz
- B239 **Characterization of Carbon Nano-Particles from the Cladof Nuclear Fuel in HTGR with Inherent Safety(II) –Quantitative Analysis**
G. Iwanaka, H. Nishida, H. Takano, M. Itoh
- B240 **Risk assessment of airborne engineered nanomaterials**
A. J. Koivisto, A.-K. Viitanen, T. Hussein, T. Kanerva, T. Tuomi, H. Stockmann-Juvala, K. Hämeri
- B241 **Stability of nanoparticle agglomerates in flames - First results of investigations on the release during waste incineration**
I.-M. Liesen, W. Baumann, M. Hauser, H. Mätzing, H.-R. Paur, H. Seifert

Reserve Posters

- B223 **Uptake of N₂O₅ to citric acid aerosol particles**
G. Gržinić, T. Bartels-Rausch, A. Türler, M. Ammann
- B224 **Pressure dependency of ozonolysis product formation of α -pinene focusing on low volatile compounds such as organic acids and dimeric compounds**
M. Beck, C. Keunecke, T. Zeuch, T. Hoffmann
- B225 **Dry deposition of electrospayed liquid suspensions**
S. Martin, B. Martinez-Vazquez, P. L. Garcia-Ybarra, J. L. Castillo
- B226 **Effect of Nucleation Precursors on the Atmospheric Oxidation of Organic Compounds**
J. Elm, M. Bilde, K. V. Mikkelsen
CHANGED TO ORAL PRESENTATION
- B227 **Quantitative single particle mass spectrometry with the Aerodyne aerosol mass spectrometer: development of a new classification algorithm and application to field data**
F. Freutel, F. Drewnick, J. Schneider, T. Klimach, S. Borrmann
- B228 **Smoke particle morphology for different fire types determined by equivalent ratio tube furnace method**
Jaehark Goo
- B229 **Industrial by-products as precursors for gas-phase nanoparticle synthesis**
T. Karhunen, A. Lähde, T. Torvela, J. Jokiniemi
- B230 **Dilution affects particle properties originating from residential biomass combustion**
H. Lamberg, T. Kaivosoja, J. Leskinen, M. Kortelainen, A. Viren, H. Koponen, V. Tiihonen, M. Miettinen, J. Pyykönen, J. Jokiniemi, J. Tissari
- B231 **A novel set-up for source characterization and human exposures of biomass combustion aerosols**
R. Nyström, E. Z. Nordin, J. H. Pagels, A. Blomberg, T. Sandström, C. Boman
- B232 **Synthesis of tailored organic-inorganic nanostructures by charge controlled coagulation**
S. Sigmund, E. Akgün, J. Meyer, M. Wörner, G. Kasper
- B233 **Contribution of Inorganic aerosols and trace gases due to biomass burning during cooking hours at a rural site in India**
Sudha Singh, Gyan Prakash Gupta, Bablu Kumar, U. C. Kulshrestha
- B234 **Dependence of Aircraft Smoke Number on Black Carbon Size Distribution**
M. E. J. Stettler, J. J. Swanson, A. M. Boies
- B235 **Characterisation of solid and semi-volatile gas-turbine particulate matter using a catalytic stripper**
J. J. Swanson, T. J. Johnson, J. S. Olfert, M. P. Johnson, P. I. Williams, G. J. Smallwood, A. M. Boies
- B236 **Impact of biogenic emissions on PM_{2.5} concentration over Europe**
E. Tagaris, R. E. P. Sotiriopoulou, N. Gounaris, S. Andronopoulos, D. Vlachogiannis
- B237 **Climate and biofuels in Brazil**
H. Vuollekoski, R. Makkonen, A. Asmi, R. Hillamo, T. Petäjä, M. Kulmala

Poster Session C

Thursday, September 5th

Room: Zenit + Nadir

16:00-18:00 Authors' Presentations

Room: Zenit + Nadir

Electrical Effects

- C001 **Incineration of the diesel particulate matter using the dielectric barrier discharge on the electrostatic precipitator**
Y. Ehara, M. Kobayashi, H. Muramatsu, A. Zukeran, H. Kawakami, T. Inui
- C002 **Manipulation of aerosol particles with nonlinear polarizability**
K. V. Generalov, D. V. Korneev, V. M. Generalov, M. V. Kruchinina, B. N. Zaycev
- C003 **An ESP nanoparticle generator**
C. W. Lin, W. Y. Lin, T. C. Hisao, Y. M. Kuo, C. C. Chen
- C004 **Experimental study of a louvered electrostatic precipitator**
Hso-Chi Chung, Tsai-Yun Wu
- C005 **Open Channel Electropray System**
J. S. Kang, J. H. Jung, G.-N. Bae
- C006 **Effect of aperture rate on improving collection efficiency in hole-type electrostatic precipitator**
H. Kawakami, A. Osaka, Y. Watanabe, Y. Ehara, Y. Nitta, A. Zukeran, T. Inui
- C007 **The Effect of Surface Charge on Characteristics of Fibrous Membrane**
Y. R. Jhong, H. Y. Lin, S. K. Chan, T. M. Tu, Y. C. Cheng, Y. Y. Chang, C. W. Chen, W. Y. Lin
- C008 **Characterization of an ion jet unipolar electrical aerosol diffusion charger**
Wen-Yinn Lin, Ken-Hui Chang, Chih-Chieh Chen, Shao-Hao Lu, Yuan-Yi Chang, Jin-Yuan Syu
- C009 **SO₂ Reduction by water condensation for marine diesel**
A. Zukeran, K. Ninomiya, Y. Ehara, K. Yasumoto, H. Kawakami, T. Inui

Fundamentals

- C010 **Modifications to the bipolar charging theory for spherical particles**
J. L. de La Verpillière, J. J. Swanson, A. M. Boies
- C011 **Restructuring of Aggregates and their Primary Particle Size Distribution during Sintering**
M. L. Eggersdorfer, S. E. Pratsinis
- C012 **Acoustic waves in vapour-gas mixtures with polydispersed particles and droplets**
Yu. V. Fedorov, D. A. Gubaidullin, D. D. Gubaidullina
- C013 **Multiscale design of aerosol synthesis of materials: Effect of structure on TiO₂ & SiO₂ particle growth by coagulation and sintering**
E. Goudeli, M. L. Eggersdorfer, S. E. Pratsinis

- C014 **Dynamics of aerosols and particles at nonlinear oscillations in tubes**
D. A. Gubaidullin, R. G. Zaripov, L. A. Tkachenko
- C015 **De-agglomeration and bounce of the iron oxide agglomerates due to the impaction**
M. Ihalainen, T. Lind, T. Torvela, J. Ruusunen, A. Lähde, P. Tiitta, J. Jokiniemi
- C016 **Propagation of acoustic disturbances in N-fractional gas-liquid systems**
D. A. Gubaidullin, A. A. Nikiforov, E. A. Teregulova, R. N. Gafiyatov
- C017 **Experimental investigation dynamics of aerosols at oscillations in tubes in a no shock-wave mode**
D. A. Gubaidullin, R. G. Zaripov, L. A. Tkachenko
- C018 **Calculation of deposition on fibrous filters due to impaction – critical trajectories**
S. J. Dunnett, C. F. Clement
- C019 **Study of filtration performances of fibrous media: comparison between flat and industrial-geometry prototypes filters**
L. F. Gonzalez, A. Joubert, Y. Andrés, C. Delahaye, N. Berthelot, X. Chaucherie, L. Le Coq
- C020 **Degradation of glass fiber filter media exposed to acidic and alkaline contaminants**
Myong-Hwa Lee, Jeong-Uk Kim, Eunsol Kim
- C021 **Filtration characteristics of air filter loaded with differently charged particles**
H. S. Park
- C022 **Influence of particle and filter charge on collection efficiency of air filters in an externally applied electric field**
H. S. Park
- C023 **The analytical description of the dynamics of the impurity redistribution in the composite particles by coagulation**
D. V. Tsaplin, V. N. Piskunov
- C024 **Detection of the negative thermophoresis phenomenon in microgravity experiments**
A. A. Vedernikov, S. A. Beresnev, A. V. Markovich
- C025 **Contribution to the study of particle resuspension kinetics during thermal degradation of polymers**
S. Delcour, F.-X. Ouf, N. Azema, A. Coppalle, J. Yon, L. Ferry, F. Gensdarmes, J.-M. Lopez-Cuesta
- C026 **Determining the mass accommodation coefficient of dicarboxylic acids using molecular dynamics simulations**
Jan Julin, Ilona Riipinen
- C027 **Size dependence of incorporation of gas molecules into aerosol nanoparticles**
V. V. Levdansky, J. Smolík, V. Ždímal, P. Moravec
- C028 **Influence of size effect on chemical reactions on surface of aerosol nanoparticles**
V. V. Levdansky, J. Smolík, V. Ždímal, P. Moravec
- C029 **Evolution of Size and Temperature of Droplets in the Process of Bulk Condensation**
N. M. Kortsenshteyn, A. K. Yastrebov
- C030 **Nucleation near critical supersaturation**
Z. Kožisek, P. Demo
- C031 **Heterogeneous nucleation on partially wettable charged conducting seed particle**
M. Noppel, H. Vehkamäki, P. M. Winkler, M. Kulmala, P. E. Wagner
- C032 **The Role of Highly Oxidized Organics in New Particle Formation**
I. K. Ortega, H. Vehkamäki

- C033 **Linking Neutral and Charged Sulfuric Acid - Ammonia and Sulfuric Acid - Dimethylamine Clusters**
I. K. Ortega, O. Kupiainen, T. Olenius, V. Loukonen, T. Kurten, H. Vehkamäki
- C034 **Determination of Nanoparticles Surface Tension from Experimental Data on Homogeneous Nucleation of Ibuprofen Vapors**
A. V. Samodurov, A. M. Baklanov, S. V. Vosel
- C035 **Development of an Experimental Flow Configuration for the Study of the Effects of Mixing on the Nucleation and Growth of Liquid Droplets**
G. Scribano, A. O. Alsharawi, K. Zhou, A. Attili, F. Bisetti
- C036 **Systematic correlation between aerodynamic shape factor and optical properties**
S. Pfeifer, T. Mueller, A. Wiedensohler
- C037 **CANCELLED**
- C038 **Experiments on neutral cluster generation and detection below 2 nm size**
J. Kangasluoma, H. Junninen, M. Sipilä, M. Kulmala, T. Petäjä
- C039 **A method to determine the size distribution of recombination products from atmospheric measurements**
J. Kontkanen, T. Nieminen, H. E. Manninen, K. Lehtipalo, V-M. Kerminen, K. E. J. Lehtinen, M. Kulmala
- C040 **Generation of sub-Nanometer Atomic Clusters in the Aerosol Phase using Spark Discharge Generation (SDG)**
A. Maisser, K. Barmounis, M. B. Attoui, G. Biskos, A. Schmidt-Ott
- C041 **Calculation of dynamic properties of fractal aggregates in the transition regime**
A. D. Melas, A. G. Konstantopoulos, L. Isella, Y. Drossinos
- C042 **Analysis of the Current Models of Aerosol Dry Deposition**
V. N. Piskunov
- C043 **CANCELLED**

Instrumentation

- C044 **Comparisons of Rman- and WALI- derived aerosol optical properties during HyMeX**
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- C046 **Direct analysis of secondary organic aerosol using atmospheric-pressure glow discharge mass spectrometry**
M. Brüggemann, T. Hoffmann
- C047 **Aerosol detection and ranging: fast laser imaging optical emission spectroscopy (DARLIOES)**
S. Mitachi, M. M. Cozaco, A. Timofte, D. Dimitriu, S. Gurlui
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J. J. Swanson, H.-J. Schulz
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- C051 **A new device for the investigation of nucleation, dynamic growth and surface properties of single ice crystals**
J. Voigtländer, C. Chou, H. Bieligk, T. Clauss, P. Herenz, D. Niedermeier, J. Z. Ulanowski, F. Stratmann
- C052 **A real-time analyzing and weighing system**
D. Weidauer, C. Bey, F. Freyer, N. Derenda
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S. Bau, V. Hase, P. Danilhelka, O. Witschger
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- C056 **Comparison among un-denuder filter based, denuder filter pack and continuous techniques for inorganic artefact assessment**
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- C058 **Inter-comparison of size distribution measurements in cloud expansion studies**
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C. Pio, J. Cardoso, T. Nunes, C. Alves, M. Cerqueira, S. M. Almeida, M. Almeida-Silva, M. C. Freitas
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J. Svensson, D. Brus, A.-P. Hyvärinen, H. Lihavainen
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A. J. Grah, M. L. Eggersdorfer, S. E. Pratsinis, K. Wegner

- C067 **XPS analysis of size-segregated aerosol collected in an urban background site in Lecce (Italy)**
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M. Bělka, F. Lizal, M. Jicha, J. Jedelsky
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C. Graham, S. Slayford
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S. Bujak-Pietrek, U. Mikołajczyk, I. Szadkowska-Stańczyk
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- C153 **Indoor air quality in school buildings in the city of Sosnowiec, Poland**
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- C163 **Overview of the AIRUSE project: Testing and Development of air quality mitigation measures in Southern Europe**
A. Karanasiou, F. Amato, T. Moreno, A. Alastuey, M. Viana, F. Lucarelli, S. Nava, G. Calzolari, C. Pio, C. Alves, T. Nunes, K. Eleftheriadis, E. Diapouli, V. Vasilatou, E. Monfort, I. Celades Lopez, R. M. Harrison, D. Beddows, X. Querol
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S. Canepari, M. L. Astolfi, M. Marcoccia, D. Frasca, C. Perrino
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L. Mueller, G. Jakobi, M. Elsasser, B. Stengel, R. Rabe, O. Sippula, E. Karg, M. Sklorz, T. Streibel, J. G. Slowik, A. S. H. Prevot, J. Schnelle-Kreis, R. Zimmermann
- C170 **Study of the aerosol elemental composition with high time resolution: preliminary results from the AIRUSE LIFE+ Project**
S. Nava, G. Calzolari, M. Chiari, F. Lucarelli, F. Amato, A. Karanasiou, X. Querol, C. Alves, M. Duarte, T. Nunes, C. Pio, K. Eleftheriadis, D. Beddows, R. M. Harrison

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A. Piazzalunga, D. Ballabio, V. Bernardoni, P. Fermo, U. Molteni, P. Prati, R. Vecchi, G. Valli
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O. B. Popovicheva, E. D. Kireeva, N. M. Persiantseva
- C174 **Meteorological and chemical factors triggering an exceptional PM pollution episode in wintertime in the Po Valley, Italy**
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- C175 **Comparison of particle number concentration and PM_{2.5} chemical species in urban and rural sites in Po Valley (I) during measurement program in the Supersito project**
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G. Salque-Moreton, R. Jacob, D. Voisin, F. Donnaz, J.-L. Jaffrezou, J.-L. Besombes, R. Thissen
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M. Psichoudaki, E. Kostenidou, A. Bougiatioti, S. Bezantakos, G. Biskos, A. Nenes, S. N. Pandis
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Aerodyne Research, Inc. (ARI) has provided research and development (R&D) services to commercial and government clients working to solve national and international problems since 1970. Our R&D staff is organized into six technology centers which address such critical issues as global and regional environmental quality and development of clean and efficient energy and propulsion technologies.

In conjunction with ARI's research activities, we also manufacture and sell high sensitivity, fast time response instrumentation for environmental air quality monitoring and atmospheric research. These instruments include Aerosol Mass Spectrometers, Quantum Cascade Laser Trace Gas Detectors, Aerosol Chemical Speciation Monitors (ACSM), Particle Optical Extinction (CAPS PMex) monitors, and ultrasensitive nitrogen dioxide (CAPS NO₂) monitors.

ARI also designs, builds and utilizes remote sensing, surveillance, image processing, tracking and recognition systems for commercial and environmental applications and national defense.

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Magee Scientific Aethalometers, instruments for measurement of Black Carbon, are manufactured at "Aerosol d.o.o." in Ljubljana, Slovenia. The Aethalometers provide an on-line measurement of aerosol absorption on up to 7 wavelengths: 370, 470, 520, 590, 660, 880, 950 nm. Black Carbon is the second most important climate forcer and highly correlated with detrimental health effects of air pollution. Measurements by the Aethalometer of aerosol absorption at different wavelengths of light provide information specific to sources and enable discrimination between biomass and fossil fuel combustion aerosols by ambient measurements, and detection of mineral dust events.

The 'Next Generation' Aethalometer[®], Model AE33, incorporates scientific and technical advances designed to offer improved measurement performance, user features, communications and interface, and the ability to perform routine performance tests to verify correct operation. Most importantly, the new instrument incorporates the patented DualSpot™ measurement method. This provides two significant advantages: elimination of the changes in response due to 'aerosol loading' effects; and a real-time calculation of the 'loading compensation' parameter which offers insights into aerosol optical properties.

AethLabs

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AethLabs is the manufacturer of the microAeth® Model AE51 for measuring Aerosol Black Carbon. The microAeth® is battery powered, easy to use, and small enough to fit in your pocket. With Aethalometer® measurement technology inside, the microAeth® is built on proven technology that has been used world-wide for 30 years.

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AIRMODUS

Airmodus manufactures instruments for the counting of individual aerosol particles and the detection of clusters and gas molecules.

Airmodus offers Particle Size Magnifier systems that allow you to detect particles as small as 1 nm in diameter; easy to use Condensation Particle Counters with a cut-off size fit for your measurement needs; and special mass spectrometer inlets for the detection of challenging gaseous compounds (e.g. sulfuric acid, ammonia, amines).



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New in 2013, Cambustion's UDAC is a standalone unipolar diffusion charger, capable of placing a high level of charge on aerosols, and forming a building block of many laboratory experiments.

A novel application (the subject of an AS&T letter) combines a UDAC, a Cambustion Centrifugal Particle Mass Analyzer (CPMA) and an aerosol electrometer, to provide an aerosol mass standard.

The CPMA continues to find new applications as an aerosol laboratory tool, with a growing group of researchers publishing around the world since 2012.

Cambustion's aerosol product range continues to develop, with the addition of an aerosol flow meter accessory for the UDAC/CPMA and a standalone electrostatic precipitator.

Our established DMS series instruments offer the fastest real-time electrical mobility size/number spectra available (from 200 ms T10-90% at 10Hz); particle size measurement range from 5nm – 2.5µm, with unrivalled sensitivity. Applications include ambient monitoring, combustion aerosol, workplace exposure and engineered nanoparticle research.

With fully integrated sampling and dilution options, DMS series instruments can be used for both ambient applications and straightforward direct sampling of high concentration aerosol sources through software selection of appropriate dilution.

Meet us at the Cambustion exhibit – booth No. 14

Catalytic Instruments GmbH & Co. KG

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Catalytic Instruments
hot technologies • clean solutions

Catalytic Instruments is a German company specializing in the production of innovative aerosol instruments based on "catalytic stripper" technology. A catalytic stripper is a heated catalytic element used to remove the particle and gas phase semi-volatile fraction of an aerosol. Applications include measurement of diesel, locomotive, and gas turbine exhaust.

Current products include the CS08 and CS015 - catalytic strippers designed for aerosol flowrates of 8 and 1.5 L/min, respectively. A CVF100 or Catalytic Vapor Filter is also offered for the removal of CPC exhaust vapor. For unique applications, Catalytic Instruments will work with the customer to provide individual solutions.

Comde-Derenda GmbH



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Comde-Derenda GmbH was originally founded under the name of Norbert Derenda Engineering Office in Berlin in the year of 1972. Today the company is located in Stahnsdorf near Berlin where new facilities were erected in the year of 2007. The firm's products are being used to an ever increasing extent within the European Union to monitor outdoor air quality.

In the years 1999 and 2000 the company was certified as per the DIN EN ISO 9001 quality assurance standards. In 2002 the quality management system was audited to the requirements set forth in DIN EN ISO 9001:2000. Norbert Derenda, the owner of the company, has, since the year 2000, also been a member of the Sponsors' Circle for the Commission on Air Quality Maintenance (KRdL) in the VDI and DIN organizations.

In October of 2007 Norbert Derenda was appointed to membership in "KRdL Working Group 4/2/09 on Measurement of Particles in Outdoor Air".

The product range now includes complete sampling systems and measurement instruments for direct and continuous analysis of gas and particle concentrations in the atmosphere.

In detail the available products are the following:

Equipment and systems for sampling and measuring fine dust from the ambient air. Low volume sampler (reference devices in compliance with CEN standards). Automatic dust sampling systems for low-, medium- and high-volume sampler units. Air pollution monitors (on-line) for direct and continuous determination of the concentration of suspended dust particles. Automatic weighing systems for gravimetric evaluation of dust-loaded filters or other sample carriers. Air monitoring stations for up to 8 immission values (fine dust and gases) for environmental monitoring purposes. Gas collection units for exposing gas absorption tubes.

Comde-Derenda GmbH employs highly competent and dedicated personnel who can also be set to work on special solutions and custom equipment at any time.

Copley Scientific Limited



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Copley Scientific is considered the world's leading manufacturer of test equipment for Metered-Dose Inhalers (MDIs), Dry Powder Inhalers (DPIs), Nebulizers and Nasal Sprays. In cooperation with aerosol characterisation equipment experts, MSP Corporation (MN, USA), Copley Scientific also offers a comprehensive range of aerosol sampling and particle sizing equipment for use in industrial and academic applications. This includes the world-renowned MOUDI and Nano-MOUDI range of cascade impactors, the Wide Range Particle Spectrometer Model 1000XP, the Real-Time Fibre Monitor Model 7400AD and Water-based Condensation Particle Counters (WCPCs). Copley Scientific has offices and product experts based in Nottingham, UK and Basel, Switzerland, serving the European market.

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Dekati Ltd. develops, manufactures and markets instrumentation needed in fine particle measurement and sampling. In 1995, Dekati introduced the world's first real-time fine particle concentration and size distribution measurement instrument, ELPI™. Since then, our product line has been continually expanding and it now includes several instruments for both particle detection and aerosol sample conditioning and dilution. The latest addition in the Dekati® Product Line is the Dekati® Bipolar Charge Analyzer (BOLAR™) for particle bipolar charge size distribution measurements.

Dekati develops new products in close co-operation with the world's leading universities and companies. Our mission is to provide our customers with innovative fine particle measurement solutions that guarantee accurate results even in demanding environments.

Dekati instruments are used for example in the following application areas:

- Combustion Processes (Diesel, Gasoline, Oil, Coal, Bio-fuels etc.)
- Environmental Ambient Aerosol Research and Monitoring
- Occupational Health and Safety Measurements
- Pharmaceutical Drug Screening and Inhalator R&D
- Nanotechnology and Material Processing

Visit www.dekati.com for more details on our company and our products, or contact us at sales@dekati.fi for further information.

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Since 1970 Digitel Elektronik AG designs and manufactures successfully measurement instrumentation for environmental monitoring. Digitel Elektronik AG is located in Switzerland and sells worldwide over a network of local resellers. Their experience and the state-of-the-art production processes stand for approved first-class quality products.

Digitel provides a full range of High and Low Volume sampler products for immission measurement such as PM10 according to the directives EN12341 and PM2,5 according to the directives EN 14907 as well as for other measuring purposes with different flow rates and cut-off point characteristics.

In addition to their standard products Digitel offer customer-specific solutions with specialised know-how and profound experience of over 40 years as environmental professionals. Digitel sets high quality standards and is well known to be the leading company when it comes to precision and reliability. All instruments made by Digitel have a long lifetime, low power consumption and a low noise level.

Digitel Enviro-Sense – We Care

Ecotech PTY Ltd.



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Ecotech's tailored and innovative monitoring solutions assist our customers in quantifying environmental impacts all around the world. From our range of gas analysers through to our particulate instrumentation and also our sophisticated data software, Ecotech provides solutions that ensure air quality and climate data are accessible to everyone.

Our series of integrating nephelometers ranges from single to multiple wavelength versions and incorporates both polar and particle correlating options. Ecotech's Aurora range of integrating nephelometers are gaining a world-wide reputation for quality and reliability.

The newest addition to our aerosol family is the Aerosol Conditioning System (ACS1000). By exposing the aerosol to different relative humidity, the system enables their hygroscopic properties to be measured and analysed by a wide range of instrumentation. The dual channel provides real-time comparison between humid and dry samples.

Visit our booth at the EAC to view both our polar nephelometers and ACS1000. We will also be conducting an open workshop on Saturday 7th September at the Clarion Congress Hotel to discuss these instruments and much more. Register your interest at our booth today.

Grimm Aerosol Technik GmbH & Co. KG

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The company GRIMM Aerosol Technik has been established 30 years ago by Hans Grimm in Bavaria/Germany. Meanwhile, GRIMM Aerosol Technik is one of the worldwide leading companies in the field of particle sizing and counting down to a few nanometers due to its innovative developments and manufacturing.

The company offers a product range of portable and stationary solutions for the continuous measurement of fine and ultrafine aerosols, for applications such as Environmental Dust Monitors, Aerosol Spectrometers, Particle Counters and Sizers, Filter and Motor Testers, as well as appropriate Aerosol Generators. Our products and technologies are of newest technology, such as wireless data transfer and logging, remote control, automatic operation. Specialists in-house will advise about the correct instruments for particular applications, e.g. for ambient air, emission, occupational health, filter efficiency and exhaust gas measurements, for quality control and for pharmaceutical, atmospheric or epidemiological studies.

Worldwide direct customer support and service is offered through our subsidiaries in the US, Canada, UK, Middle East and Asia, Australia, etc. and supplemented by our strong network of international representatives.

GRIMM Aerosol Technik:

- Environmental Dust Monitors
- Portable Dust Monitors and Aerosol Spectrometers
- Nanoparticle measuring systems (portable, mobile, stationary)

IONER®*a trademark of RAMEM S.A.*

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RAMEM-IONER® is a Spanish company devoted to the development of innovative aerosol instruments. RAMEM-IONER has a main goal: taking the DMA technology and applications to the smaller particles possible. RAMEM-IONER develops DMAs based on patented parallel plate technology and with different chargers and ion sources. Very high resolutions are reached with high sheath flows. Complete DMAs with sheath flow and aerosol flow control, chargers and electrometers are commercialised. Also, separate modules like ElectroSpray sources, Corona discharge sources, High Voltage sources or modules for flow control are sold.

RAMEM, the main branch of the company, designs and manufactures special needs of prototypes in scientific instrumentation or scientific installation. Short series or even single prototypes can be considered.

The latest RAMEM-IONER project is GANS: A DMA for early stage of nucleation studies. In this project, RAMEM-IONER ion sources for organic compounds and for inorganic compounds are coupled to a high resolution DMA (or HRIMS) for ions. The detection stage is done coupling a Particle Size Magnifier (PSM) with a Condensation Particle Counter (CPC) developed by Airmodus. Further information about GANS project and RAMEM-IONER can be found in: <http://www.gans-project.eu/>

Matter Aerosol

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MCV is a company established for more than 30 years in order to design and develop instrumentation, equipment and systems related to the environment, especially in the areas of air quality control and meteorology. The main field of activity of the company includes the design of equipments, management, control and monitoring systems, data acquisition systems, software and civil works.

MCV due to its experience and leadership in the environmental engineering field offers their clients the development of customize solutions to their needs.

The facilities of the company allow us to face any kind of project as the construction of mobile units, monitoring stations for automatic networks, radars and meteorological towers, production of equipments for the sampling of gases and particles or data acquisition systems.

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MCV develops, manufactures and distributes equipment to measure and control the air quality as: HVS (PM10, PM2.5, PM1, HAP, TSP heads), VOC's samplers, Calibration systems with aire zero generator and automatic analysers for SO2, NOx, O3, CO, H2S, BTX...

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This company will not be present at the Conference.

Met One Instruments, Inc.

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Met One Instruments

Met One Instruments, Inc. located in Oregon, USA designs and manufactures meteorological instruments, handheld/portable particle counters, aerosol monitors, and regulatory particulate matter (PM) samplers/monitors. Our BAM-1020 Monitor is the first continuous PM measurement method to receive both PM2.5 and PMcoarse U.S. EPA Federal Equivalence Method designation. It also passed the newest European Equivalency testing for PM10 and PM2.5 and is certified to EN 15267 the highest EU quality standard for ambient monitors.

We are committed to meet the needs of our worldwide customers for ambient and indoor monitoring requirements and offer specialized solutions for various applications including data logging and software instruments. We are in business since more than 20 years and bring our experience to work for you.

See the new additions to our aerosol instrumentation product line at www.metone.com.

Metrohm Applikon B.V.

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Metrohm Applikon, headquartered in Schiedam, the Netherlands has more than 35 years experience in delivering solutions for laboratory, at-line and on-line wet chemical analysis. Part of the worldwide Metrohm AG group, Metrohm Applikon has access to Metrohm's know-how and expertise in ion analysis.

MARGA (Monitor for AeRosols and Gases in ambient Air) is an on-line ion chromatograph that measures the concentration of soluble inorganic species in aerosols and their related gas phase components in ambient air. Hourly simultaneous results for gases and aerosols can be accessed from a remote workstation, with result quality being maintained by an internal standard and detailed system diagnostics.

Jointly developed with ECN, The Netherlands, MARGA is distributed world-wide through Metrohm Applikon's distributor network; most members of which belong to the Metrohm group of companies.

Naneos Particle Solutions GmbH

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Naneos builds nanoparticle detectors that are easy to use, small and reliable. They can be used in workplace safety, for ambient monitoring and health studies.

Palas® GmbH



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With more than 60 submitted patents, the Palas® GmbH has effectively set standards in the aerosol technology since 1983. Today, Palas® offers a complete product range for the continuous aerosol generation and measurement from 5 nm to 100 µm.

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Our core competencies are:

- Particle generation
- Particle measurement systems (for high pressures up to 10 bar, temperatures from -120°C up to 470°C, processes, environment and workplace, inhalation)
- Nanoparticle measurement systems (U-SMPS, UF-CPC etc.)
- Filter test and filter media test systems
- Continuous fine dust monitoring systems
- Dilution systems
- Cleanroom particle technology
- Calibration systems

Well-known industrial enterprises and research institutions worldwide have decided in favour of Palas® products and have thus established Palas® as a worldwide market leader.

Sunset Laboratory Inc.



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Sunset Laboratory Inc. has specialized in the analysis of air pollution for carbon aerosols since 1984. As well as performing the OCEC analysis, Sunset Laboratory also provides instrumentation for carbon aerosol analysis. Our equipment is suitable for the laboratory or in the field, and ready for use with the NIOSH method 5040, IMPROVE-A, and EUSAAR 2 protocols.

Clients include researchers working for government regulatory agencies, private companies, commercial laboratories, and universities.

Topas GmbH



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Topas GmbH Dresden is a specialist company in the field of aerosol and particle technology.

Our standard product range comprises:

- aerosol generators (mono- and polydisperse, solid and liquid particles)
- particle size measuring instruments for aerosols and liquids
- aerosol dilution systems
- electrostatic aerosol neutralizers
- process aerosol monitors
- filter testing technology and instruments
- clean room measuring equipment
- pore size measuring instruments

Topas also provides solutions for special applications like the dispersion of complex powders, test systems for particle filters and for adsorptive filters, filter media testing, blow-by measuring etc. Our corporate philosophy allows us to meet a variety of customer needs. Many years of experience, our know-how as well as close cooperation with universities, research centres and industrial partners is the ideal basis for the development of new and innovative solutions. Our reliable measuring and testing equipment has proven successful worldwide.

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As an international leader in measurement technology for over 50 years, TSI Incorporated (www.tsi.com) designs and manufactures precision instruments used for aerosol research, contamination control, indoor air quality and serves the needs of industry, governments, research institutions and academia. TSI researchers and engineers have developed instruments that are recognized worldwide. During EAC 2013 in Prague TSI's team will show new products like the Model 3938 which is the 3rd generation of the SMPS; trusted by researchers for over 30 years. The new generation has an improved accuracy, does not require an external computer, and offers new features like fast size measurements with scan times below 10s.

Stop by our booth and learn more about the new.

Multi-Instrument-Software (MIM), Highlights of Sizing Nanoparticles with NanoScan SMPS and OPS Combination System Model 3914 and our 30 % CPC Trade-In offer for selected CPCs.

We look forward to seeing you at our booth.

ECM ECO Monitoring



Address: Nevädzová 5
821 01 Bratislava
Slovak Republic

Phone: 00421 2 4342 9417
Fax: 00421 2 4342 7465
Email: ecm@ecm.sk

ECM is a TSI company operating in area of Central/Eastern Europe and CIS countries. Besides of TSI particle monitoring products also OC/EC, carbon black and complex analytic solutions for monitoring of gases, liquids and particles are provided.

For detailed information in different languages refer to www.ecmonitoring.com

URG Corporation



Address: 116 South Merritt Mill Rd.
Chapel Hill,
North Carolina
27516 USA

Phone: 919-942-2753
Email: info@urgcorp.com
Website: www.urgcorp.com

URG Corporation manufactures the Ambient Ion Monitor (AIM) System for the continuous direct measurement of particulate Cl⁻, NO₃⁻, SO₄²⁻, NH₄⁺, NA⁺, K⁺, CA₂⁺, MG₂⁺ in PM_{2.5} plus gas measurements of HCl, HNO₃, HNO₂, SO₂, NH₃. The AIM System analyzes particles, gases and organics. The AIM System incorporates Thermo Scientific Dionex Reagent-Free Ion Chromatographs. The AIM System has detection limits of 0.05µg/m³ for each of the required analytes. The multi-pollutant data is instantly available on an hourly basis and with the option of every 15-30 minutes.

URG provides a wide variety of instruments for indoor and outdoor air sampling. Our Annular Denuder System (ADS) collect both acidic and basic gases and is designed to meet USEPA's Compendium Method IO-4.2. URG's complete collection of aluminum cyclone inlets are Teflon[®] coated, a patented process that minimizes the losses of reactive gases such as HNO₃ and NH₃ to the internal surfaces of the cyclone. URG provides stainless steel cyclones and filter holders for diesel emissions.

URG air sampling instrumentation is used in Europe, Asia, North America, Australia, Antarctica, Africa and South America.

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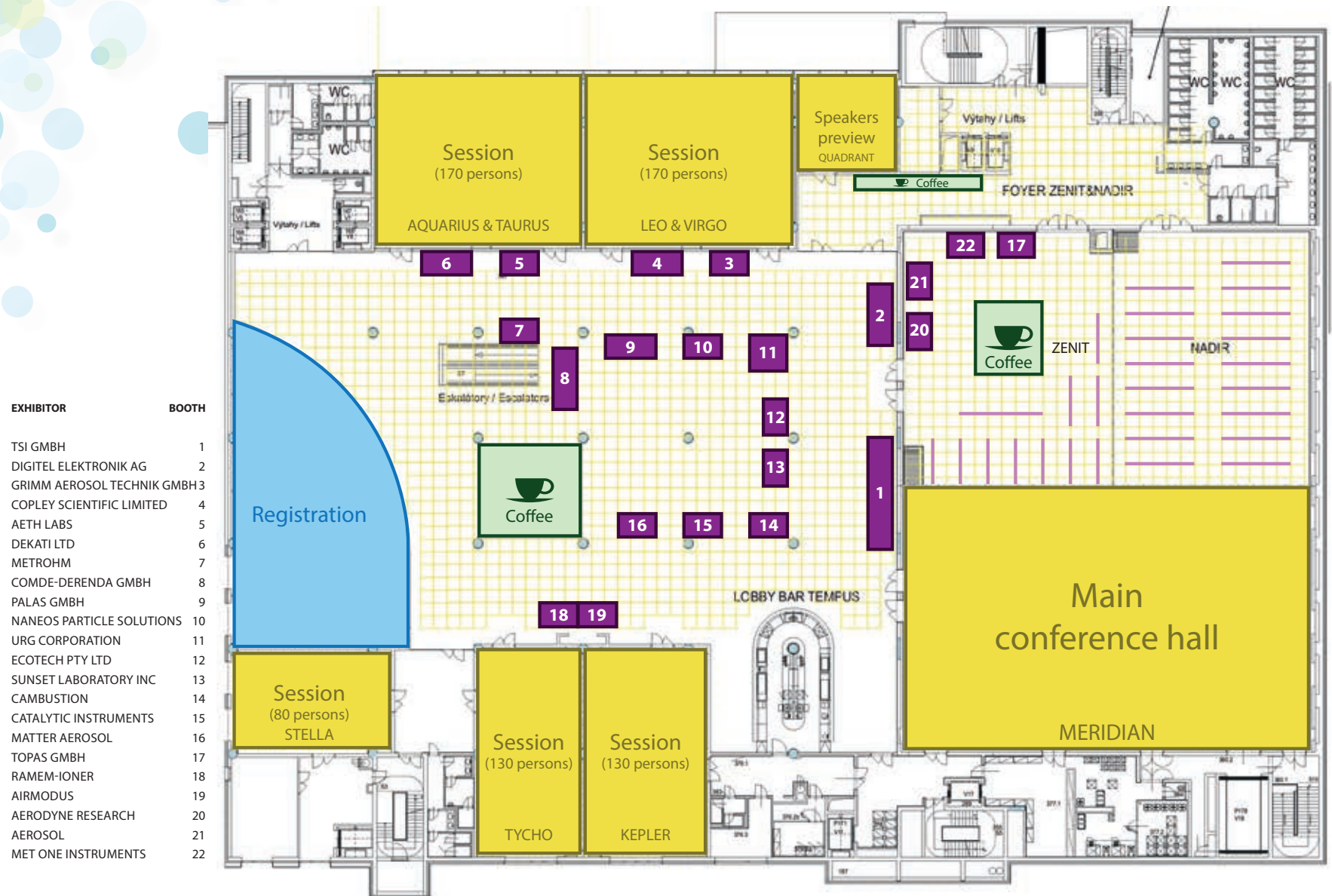
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VISIT

The Ecotech booth to see our:

- ACS 1000 Aerosol Conditioning System
- Aurora 4000 Polar Integrating Nephelometer



LISTEN

Tuesday morning September 3, 2013

Session 5 - Instrumentation

**A new aerosol conditioning system -
Characterisation and first application**

M. Laborde, B. Rosati, P. Zieger, T. Petäjä,
G. Kassell, D. Logan, E. Weingartner



ATTEND

Ecotech's Nephelometer Workshop

Saturday 7th September,

Clarion Congress Hotel

Visit our booth to register

