

## **Air Quality in Europe - New Challenges**

**Conference with  
Posters and Exhibition**

**Organised by the  
Automation and Analytical Management Group -  
Royal Society of Chemistry**

**Tuesday 9th & Wednesday 10th December 2014**

**At The Royal Society of Chemistry,  
Burlington House, Piccadilly,  
London W1J 0BA**

**Email: [conference@aamg-rsc.org](mailto:conference@aamg-rsc.org)  
Website: <http://www.aamg-rsc.org>**

# Air Quality in Europe - New Challenges

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The Royal Society of Chemistry, Burlington House, Piccadilly, London

### Introduction

In several European countries, air quality made headline news this year in a way that has not been seen for decades. While the regulation of emissions, and our understanding of the sources and mechanisms involved in air quality, move forwards, the overall situation may not, as control in some areas is counterbalanced by uncontrolled developments in others.

Following last year's successful liaison with Defra's Air Quality Expert Group, there will be overview presentations on topics currently being reviewed by that group. They concern pollution sources that are either relatively new, or that have not received the attention that they merit: shipping, biomass burning and shale gas extraction (often called "fracking"), and also an assessment of the evidence for photocatalytic paints as a means to reduce NO<sub>x</sub> concentrations. In addition, there will be an update on the EU funded CARBOTRAF project and a session focused on black carbon and other air pollution emissions from traffic. The meeting will also include a session on advances in air quality measurement; an on-going theme of this conference series.

This year the AAMG conference will be preceded by the CARBOTRAF final conference which is taking place on 8th December at Burlington House (see [carbotraf.eu](http://carbotraf.eu) to book a place).

Exhibition:- A limited number of exhibition places are available. Interested persons are requested to contact the conference secretary at [conference@aamg-rsc.org](mailto:conference@aamg-rsc.org)

### Tuesday 9th December

09:30 Registration

10:25 Welcome and Introductory Remarks

### Session 1: AQEG

Chair: **Paul Monks**, Chair of AQEG, University of Leicester, UK

10:30 Impacts of Shipping on UK Air Quality  
**David Carruthers**, AQEG, Cambridge Environmental Research Consultants, UK

11:00 Biomass Burning  
**Alison Tomlin**, AQEG, University of Leeds, UK

- 11:30 Effectiveness of NO<sub>x</sub> Removing Paint  
**David Carslaw**, AQEG, King's College London, UK
- 12:00 Discussion
- 12:30 Short Presentations by Exhibitors
- 13:00 **Lunch - Exhibition & Posters**

## **Session 2: Air Pollution Aspects of Shale Gas Extraction**

Chair: **Paul Monks**, Chair of AQEG, University of Leicester

- 14:00 Shale Gas Extraction  
**Chris Dore**, AQEG, Aether, UK
- 14:30 Fracking in the UK: Impacts of Secondary Oxidants on Air Quality and Radiative Forcing  
**Alexander T. Archibald**, University of Cambridge, UK
- 15:00 Shale Gas: Dealing Effectively with Emissions to Air  
**Mark Broomfield**, Ricardo AEA Ltd, UK
- 15:30 **Tea / Coffee - Exhibition & Posters**

## **Session 3: Emerging Pollution Sources**

Chair: **Paul Quincey**, National Physical Laboratory, UK

- 16:00 Using Metals Emissions Ratios to Detect Emissions from Municipal Waste Incinerators in Ambient Air Pollution Data in the United Kingdom  
**Anna Font**, King's College London, UK
- 16:30 Shipping Emissions in the Port of Oslo: Inventory, Mitigation Strategies and Future Scenario  
**Susana López-Aparicio**, Norwegian Institute for Air Research, Norway
- 17:00 End of Day One

## Wednesday 10th December

09:30 Tea / Coffee - Exhibition and Posters

### Session 4: Black Carbon and Diesel Exhaust

Chair: **Gary Fuller**, King's College London, UK

10:00 Black Carbon as Indicator of Adverse Health Effects of Urban Air Pollution

**Aurelio Tobias**, *Institute of Environmental Assessment and Water Research, Spanish, Council For Scientific Research, Spain*

10:30 Characterisation of SVOC from Diesel Exhaust Emission using GC×GC-ToF-MS

**Mohammed. S. Alam**, *University of Birmingham, UK*

11:00 Source Specific Spatial and Temporal Heterogeneity of Black Carbon – Consequences for Abatement Measures

**Griša Močnik**, *Aerosol d.o.o., Slovenia*

### Session 5: The CARBOTRAF Project

Chair: **Guy Kouwjer**, ETS, Belgium

12:00 Correlation of Black Carbon Emissions and Concentrations with Traffic in the Project CARBOTRAF

**Martin Litzenberger**, *Austrian Institute of Technology, Austria*

12:30 CARBOTRAF: A Decision Support System for Reducing CO<sub>2</sub> and Black Carbon Emissions by Adaptive Traffic Management; Analysis of Real Time Data: Evaluation Based on Simulated and Measured Data

**Martine Van Poppel**, *VITO, Mol, Belgium*

13:00 Lunch - Exhibition & Posters

## **Session 6:     Advances in Air Pollution Measurement**

Chair: **Theo Hafkenscheid**, RIVM, The Netherlands

14:00 Comparison of a Semi-Continuous Analyser Against a Manual Method for Measuring Anions and Cations in PM<sub>10</sub>

***Sonya Beccaceci, National Physical Laboratory, UK***

14:30 Understanding the Impact of Chemical Composition and Meteorology on Highly Time Resolved Measurements of PM<sub>2.5</sub> Mass

***David Green, King's College London, UK***

15:00 Assessment of the Performance of Low Cost Sensors for Monitoring Air Quality in Laboratory and in the Real-World in Oslo

***Nuria Castell, Norwegian Institute for Air Research, Norway***

15:30 Assessing Variations in Roadside Air Quality with Sampling Height

***Stephen Stratton, Ricardo AEA Ltd, UK***

16:00 **Tea / Coffee - Close of Conference**

## How To Register

Please visit our website at: [www.aamg-rsc.org](http://www.aamg-rsc.org) for easy on-line registration. Early registration is advised due to the limited number of delegate places and catering requirements.

<b>Registration Fees:</b>	Non Members	£295
	Member RSC	£230
	Students/Retired	£ 90

The registration fee includes attendance at the meeting together with coffee, lunch and afternoon tea/coffee.

### Payment of registration fees:

- Online by Debit/Credit Card when you make your on-line registration
- Offline payment by BACS or Cheque

### Venue

The Royal Society of Chemistry  
Burlington House,  
Piccadilly  
London W1J 0BA

Map and directions are available on the on-line registration page of our website.

### Registration Contact

Conference Secretary, AAMG-RSC, PO Box 174, Manchester M24 4XZ, UK  
Email: [conference@aamg-rsc.org](mailto:conference@aamg-rsc.org) Fax: +44 (0) 161 610 3939

### AAMG Treasurer

Dr R Narayanaswamy, address as above  
Tel +44 (0) 7974 515265 Fax: +44 (0) 161 610 3939

### Notes

- 1) Fees are not normally refundable but are transferable. If for any reason the organisers should cancel the conference then fees will be refunded.
- 2) The registration fee includes attendance at the meeting together with coffee, lunch and afternoon tea/coffee, as appropriate.
- 3) The organisers reserve the right to alter the programme.

*Data Protection Act.* The information on this form will be retained (1) for the purpose of administering this meeting, in particular for producing a list of participants for distribution at the meeting, and (2) in order that information on future meetings can be sent to you. Please write to the meeting contact if you object.