



# **Air Quality Monitoring Evolving Issues and New Technologies**

**Conference with  
Posters and Exhibition**

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

**Monday 12th & Tuesday 13th December 2016**

at The Society of Chemical Industry,  
14/15 Belgrave Square,  
London SW1X 8PS

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



# Air Quality Monitoring

## Evolving Issues and New Technologies

### Conference with Posters and Exhibition

Monday 12th and Tuesday 13th December 2016  
The Society of Chemical Industry, 14/15 Belgrave Square, London

### Introduction

2016 has seen air quality issues remain high on the public and political agendas. In parallel, there have been many developments in technologies that can help clarify which are the main contributors to air pollution, reduce emissions from specific sources, and reduce exposure to the public.

Building on the success of this long-running annual event, the 2016 conference will address these developments and the prospects that they offer for the future. The conference will be held in collaboration with Defra's Air Quality Expert Group, and will include sessions based on the topics AQEG are currently scoping, to help gather relevant evidence. These topics include mitigation methods such as photocatalytic paint or urban vegetation as means of reducing exposure, ultrafine particles and engineered nanoparticles, and agricultural emissions. The conference will also include the presentation of results from the recent Defra funded project on innovative technologies for air quality monitoring.

### Monday 12th December

09:30 Registration

10:25 Welcome and Introductory Remarks

### Session 1: Innovative Measurement Technologies

Chair: **T B C** -

10:30 Presentation of the findings of the innovative technologies for air quality monitoring report

**Stephen Stratton**, *Ricardo Energy & Environment, UK*

**Margaret Bell**, *University of Newcastle, UK*

11:30 Laser based remote sensing of vehicle exhaust

**John Stewart Hager**, *H E A T, USA*

12:00 Developments in technologies and accuracy for NO<sub>x</sub> measurements

**David Worton**, *National Physical Laboratory, UK*

12:30 Short presentations by exhibitors

13:00 **Lunch - exhibition & posters**

## **Session 2: Particulate Measurements: Ultrafine and Composition**

Chair: **T B C** -

14:00 Long-term measurements of ultrafine particles in the Ruhr area (Germany)

*Ulrich Quass, I U T A, Germany*

14:30 UFP monitoring at Heathrow airport

*Brian Stacey, Ricardo Energy & Environment, UK*

15:00 Taking ambient air monitoring to the next level - Multiple applications with the Fidas® technology for fine and ultrafine particles measurements

*Frederik Weis, Palas GmbH, Germany*

### **15:30 Tea / Coffee - Exhibition & Posters**

16:00 Characterization of PM pollution within the French CARA program

*Olivier Favez, I N E R I S, France*

16:30 Chemical composition measurements and source apportionment of PM<sub>10</sub> in Port Talbot

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

## **Tuesday 13th December**

09:30 Coffee and Exhibition

### **Session 3: AQEG - Small Sensors**

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

10:00 Application of low cost sensors in air pollution monitoring

*Ally Lewis, University of York, UK*

10:30 Using a commercial low cost sensor network (Aqmesh) to quantify urban air quality: Comparing measured and modelled (ADMS urban) pollutant concentrations

*Rod Jones, University of Cambridge, UK*

11:00 The CurieuzeNeuzen citizen science project: large-scale air quality mapping of NO<sub>2</sub> concentrations in Antwerp, Belgium

*Joris van den Bossche, Vrije Universiteit Brussel, Belgium*

### **11:30 Tea / Coffee - Exhibition & Posters**

## **Session 4: AQEG - Agricultural Emissions**

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

12:00 Agricultural emissions, their contribution to air quality and the likely value of control measures

**David Fowler, C E H, UK**

12:30 The UK particulate episode of March-April 2014: More than saharan dust

**Christine Braben, C E H, UK**

13:00 Low cost sensor for continuous monitoring of the ammonia emission from a pig house

**Jacob Mønster, F O R C E Technology, Denmark**

**13:30 Lunch - Exhibition & Posters**

## **Session 5: Exposure Reduction - Photocatalytic Paints**

Chair: **T B C** -

14:30 Photocatalytic solutions to mitigate local pollution problems

**Robert McIntyre, Cristal Global, UK**

14:50 Development of more durable photocatalytic coating for pre-coated metal

**Chandrakant Mistry, Becker Industrial Coatings, UK**

## **Session 6: New Techniques and Recent Developments**

Chair: **T B C** -

15:10 New method for the measurement of engineered TiO<sub>2</sub> nanoparticles

**Stephan Leinert, L A N U V, Germany**

15:30 On-filter determination of particulate matter oxidative potential: A seasonal analysis of the London particulate airshed

**Nuria Camiña, King's College London, UK**

15:50 Combination of plant monitoring results and weather data as a method to identify PCB-sources

**Dieter Gladtko, L A N U V, Germany**

16:10 Controlling air pollution at construction sites

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

16:30 Closing Remarks

**16:35 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:

- By Debit/Credit Card when you make your on-line registration via Eventbrite
- Offline payment by invoice/BACS

### Venue

The Society of Chemical Industry  
14/15 Belgrave Square,  
London  
SW1X 8PS

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

### Registration Contact

Ms Gail Rafferty  
Email: [conference@aamg-rsc.org](mailto:conference@aamg-rsc.org)

### AAMG Treasurer

Dr R Narayanaswamy  
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### 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.