

Nanosensor Technologies for Monitoring - materials and methods

Conference with Posters and Exhibition

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

**A one day meeting on
Wednesday 7th November 2012**

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

**Email: conference@aamg-rsc.org
Website: <http://www.aamg-rsc.org>**

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Introduction

This is the fourth annual AAMG conference on monitoring and analysis using sensor technologies. The conference follows the same format as in preceding years with presentations by invited speakers; however, the majority of papers and posters are presented by young researchers. The conference addresses the health effects of nanoparticles; the preparation of nanoparticle sensor technologies and systems, and examines the design and application of early research and commercial sensors for (bio)medical, industrial and environmental processes. The conference will also include an exhibition and poster presentations.

The interest and use of Nanosensing techniques in biomedical and environmental monitoring has grown rapidly in recent years enhanced by the potential for automation and remote at site measurements with low cost methodologies and miniature instrumentation. This Conference offers a good opportunity to bring together scientists involved in this field to exchange experiences and thoughts about the new applications and novel types of sensors.

Scientific Committee

Dr R.Narayanaswamy, Professor Krishna Persaud, Dr Chris Walton, Dr Paul Quincey,
Dr Alan Braithwaite, Dr Craig Roxburgh, Dr Mark Baron and Dr Martha Buitenkamp

Programme

09.15 – 09.45 Registration and coffee

Session 1 Overview and Synthesis

Chair: **To be Confirmed**

09.45 New Methods of Bioanalysis using Functionalised Nanoparticles and SERS
Duncan Graham, Glasgow, UK

10.15 Potential Hazards and Benefits of Nanomaterials
Lang Tran, Edinburgh, UK

10.45 Applications of Nanomedicine in Diabetes
John Pickup, King's College, UK

11.15 **Tea/Coffee**

11.45 Automatic Synthesis of MIP Nanoparticles ("plastic antibodies")
Sergey Piletsky, Cranfield, UK

- 12.05 Solid-phase Synthesis of Molecularly Imprinted Nanoparticles
Alessandro Poma, Cranfield, UK
- 12.25 Nanomaterials employed in flexible Organic Field-Effect Transistors for food freshness monitoring applications
Maria Daniela Angione, Manchester, UK
- 12.45 **Lunch - Exhibition & Poster Session**

Session 2 Monitoring Applications

Chair: **To be Confirmed**

- 14.15 Mapping the Intestinal pH of *C.elegans* using ratiometric extended dynamic range pH-Sensitive Nanosensors
Veeran Chauhan, Nottingham, UK
- 14.35 Self-assembled Odorant binding Proteins as Biosensors for the detection of Odorants and Pheromones
Elena Tuccori, Manchester, UK
- 14.55 Nanotechnology-based Sensors for Air Pollution monitoring in confined spaces: a real industrial approach
Alejandro Alija, Asturias, Spain
- 15.15 **Tea/ Coffee**
- 15.45 Hybrid Composites of Polyaniline/Modified Carbon Nanoparticles Employed as Highly Sensitive Ammonia Sensors on Flexible Substrates
Ehsan Danesh, Manchester, UK
- 16.05 Sensing Atomic-scale Electric Fields by self-organised Lipid Layers on Hg
Shahzad Mohamadi, Leeds, UK
- 16.25 The Detection of Solvent Dyes in Hydrocarbon Fuels using Surface Enhanced Raman Spectroscopy
Kelly Whittingham, Lincoln, UK
- 16.45 Exhibitor Presentation
- 17.00 **Concluding Remarks and End of Conference**

How To Register

Early registration is requested due to limited number of delegate places and catering requirements. Please complete and return the registration form as soon as possible.

Registration Fees:	Non Members	£150
	Members	£110
	Students/Retired	£ 80

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

Payment of registration fees:

- By Cheque made payable to: **AAMG-RSC**
- By Credit Card (note that AMEX and DINERS cards are not accepted)

Venue

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

Maps and details will provided upon registration

Registration Contact

Conference Secretary, AAMG-RSC, PO Box 174, Manchester M24 4XZ, UK
Email: 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.

Registration Form

Please complete this form after referring to the registration information and return by post, fax or email (scanned attachment) to:

AAMG-RSC, PO Box 174, Manchester. M24 4XZ, UK
Email: conference@aamg-rsc.org Fax No: +44 (0) 161 610 3939

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Delegate Name & Title

Position

Organization

Address

Post Code

Telephone No:

Fax No:

Email

Special Requirements

Signature

Registration Fees:	Non-Member	£150
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	Student/Retired	£ 80

Payment:

(Please tick payment method)

By Cheque

Please make cheque payable to: **AAMG-RSC**

Credit/Debit Card

Please complete details below

Credit Card Details (Please note that AMEX or DINERS cards cannot be accepted)

Card Type: Visa Mastercard Maestro

Card Number:

Valid from Expiry Date

Card Issue No: (Maestro only)

Cardholder Name

Statement Address

Post Code

Contact Tel No (not mobile)

Signature of Cardholder

Date