

## Nanoparticles 2009

### PROGRAMME - DAY 1 & 2

#### Wednesday 02 September

- 17:00** Registration, wine reception sponsored by LINSET and posters  
Welcome - Prof Andrew Cossins, LINSET, UK
- 19:00** Free time

#### Thursday 03 September

- 08:30** Registration and refreshments
- 09:00** **Welcome and opening remarks**  
Prof John Saunders, University of Liverpool Deputy Vice-Chancellor
- CHAIR** - Dr Nguyen TK Thanh, The Davy-Faraday Research Laboratory
- 09:10** **World's thinnest nanowires (*Invited Talk O 1*)**  
Prof Geoffrey A Ozin, University of Toronto, Canada
- 09:40** **Comparative studies on the binding, stabilization and delivery of macromolecular DNA and RNA attached to gold, manganese and zinc nanoparticles (*O 2*)**  
Dr Robert DeLong, Missouri State University, USA
- 10:05** **Determination of the surface area of suspensions of active pharmaceutical ingredients using NMR (*O 3*)**  
Dr David Fairhurst, Xigo Nanotools LLC, USA
- 10:30** **Characterization of magnetic nanoparticles using quadrupole magnetic field-flow fractionation (*O 4*)**  
Dr P. Stephen Williams, Lerner Research Institute, Cleveland Clinic, USA
- 10:55** Refreshments and posters
- 11:25** **Healthcare biomagnetics: in vivo sensing, moving and heating of magnetic nanoparticles for diagnosis and therapy (*Invited Talk O 5*)**  
Prof Quentin Pankhurst, Royal Institution of Great Britain, UK
- 11:55** **Hybrid  $\text{La}_{1-x}\text{Sr}_x\text{MnO}_3$  nanoparticles for magnetic fluid hyperthermia hyperthermia and MR imaging (*O 6*)**  
Dr Emil Pollert, Institute of Physics, Academy of Sciences of the Czech Republic

## Nanoparticles 2009

### PROGRAMME - DAY 2 contd.

#### Thursday 03 September

- 12:20**      **Size and surface effects in the magnetic properties of maghemite and magnetite nanoparticles (O 7)**  
Dr Daniel Ortega, University of Cadiz, Spain
- 12:40**      **High concentration zeta potential measurements using light scattering techniques (O 8)**  
Dr Michael Kaszuba, Malvern Instruments Ltd, UK
- 13:00**      Lunch and posters
- CHAIR** - Dr Jawwad A Darr, University College of London, UK
- 14:00**      Introduction to afternoon session
- 14:05**      **From foams to dry water: Phase inversion of nanoparticle-stabilised materials (Invited Talk O 9)**  
Prof Bernie P Binks, University of Hull, UK
- 14:35**      **Structural modification and self-assembly of nanoscale magnetite synthesised in the presence of an anionic surfactant (O 10)**  
Dr Sharali Malik, Karlsruhe Institute of Technology, Germany
- 14:55**      **Gas storage in silica nanoparticle-stabilised clathrate hydrates (O 11)**  
Dr Ben Carter, University of Liverpool, UK
- 15:15**      **Synthesis, characterisation of magnetic nanoparticles for bioapplications (O 12)**  
Le T Lu, University of Liverpool, UK
- 15:35**      Refreshments and posters
- 16:05**      **Continuous hydrothermal flow synthesis of materials for UV attenuation and photocatalysis (O 13)**  
Josie Goodall, University College of London, UK
- 16:25**      **Synthesis and characterisation of TiO<sub>2</sub> (anatase) nanoparticles grafted with dopamine-PEG derivatives (O 14)**  
Dr Francesco Cellessi, University of Manchester, UK
- 16:45**      *Plenary: Soft processing for ceramics: single-step fabrication of nano-structured oxide ceramics (particles, films, integrated layers and patterns) from solution without firing (Invited Talk O 15)*  
Prof Masahiro Yoshimura, Institute of Technology Yokohama, Japan
- 17:20**      **Parliament's understanding of science (Invited Talk O 16)**  
Andrew Miller MP, UK
- 17:40**      Wine reception and posters
- 19:00**      Conference gala dinner at Eureka restaurant (pre-booked tickets required)

## Nanoparticles 2009

### PROGRAMME DAY 3

#### Friday 04 September

**08:30** Registration and refreshments

**CHAIR** - Prof David Schiffrin, University of Liverpool, UK

**09:00** **Printable photovoltaics using colloidal quantum dots (*Invited Talk O 17*)**  
Prof Shinya Maenosono, Japan Advanced Institute of Science and Technology, Japan

**09:30** **Synthesis and characterization of semiconductor nanoparticle-carbon-nanotube composites in terms of their application in hybrid solar cells (*O 18*)**  
Alina Chanaewa, University of Hamburg, Germany

**09:50** **Nanoshells for surface enhanced Raman spectroscopy in eucaryotic cells: cellular response and sensor development (*O 19*)**  
Dr Colin Campbell, University of Edinburgh, UK

**10:15** **Characterization of proteins adsorbed on AuNPs in different cell culture media: the role of protein corona in the cellular response (*O 20*)**  
Gabriele Maiorano, Italian Institute of Technology, Italy

**10:35** Refreshments and posters

**11:05** **Using novel approaches to nanoparticles and their assemblies (*Invited Talk O 21*)**  
Prof Paul O'Brien, University of Manchester, UK

**11:35** **The biological implications of radiation induced photoelectron production, as a function of particle size and composition (*O 22*)**  
Prof C. Vyvyan Howard, University of Ulster, Northern Ireland

**12:00** **The suitability of commercial nanoparticles for magnetic hyperthermia therapy (*O 23*)**  
Dr Paul Southern, University College of London, UK

**12:20** **Fabrication of photo-induced patterned conducting polymer films containing gold nanoparticles (*O 24*)**  
Sung Huh, Pohang University of Science and Technology, South Korea

**12:40** **Stimulus-Responsive Liquid Marbles (*O 25*)**  
Dr Damien Dupin, University of Sheffield, UK

**13:00** Lunch and posters

**CHAIR** - Prof Simon Biggs, University of Leeds, UK

**14:00** **The health hazards of accidental exposure to nanoparticles (*Invited Talk O 26*)**  
Prof Ken Donaldson, University of Edinburgh, UK

## Nanoparticles 2009

### PROGRAMME - DAY 3 contd.

#### Friday 04 September

- 14:30**      **Gold nanoparticles, peptides and cells: the dynamic picture (O 27)**  
Dr Raphael Levy, Liverpool Institute for Nanoscale Science, University of Liverpool, UK
- 14:55**      **Responsive block copolymer micelles within multilayer films for use as nano-delivery systems (O 28)**  
Dr Olivier Cayre, University of Leeds, UK
- 15:15**      **Synthesis and assembly of inorganic nanostructures at the oil-water interface (O 29)**  
Dr John Thomas, University of Manchester, UK
- 15:35**      Refreshments and posters
- 16:05**      **Getting light and electrons across functionalised metal nanoparticles (Invited Talk O 30)**  
Prof David Schiffrin, University of Liverpool, UK
- 16:35**      **Gold nanorods for applications in biological imaging (O 31)**  
Dr Yu Chen, Strathclyde University, UK
- 17:00**      **Digital Biomagnetism (O 32)**  
Joshaniel Cooper, University of Cambridge, UK
- 17:20**      **Closing remarks and announcement of prize winners**
- 17:30**      Lab tours CMD or School of Biological Sciences (Optional)
- 18:15**      Conference close

### ORGANISING COMMITTEE

Dr Nguyen TK Thanh, Reader, The Davy-Faraday Research Laboratory, UK

Dr Jawwad A Darr, Reader, University College of London, UK

Prof Simon Biggs, University of Leeds, UK

Mr Peter Reineck, Peter Reineck Associates Ltd, UK