

**Nanoparticles: New Opportunities and Challenges for Colloid Scientists**  
**University of Warwick, United Kingdom**  
**28 - 30 March 2007**

**Wednesday 28<sup>th</sup> March**

11:30 Registration  
13:30 Welcome and Introductions

**SESSION 1**      **Interfacial Assembly**  
Session Chair: Jason Riley

13:40      **Keynote 1**  
**Nanocrystals. Synthesis, Superlattices and Biomedical Applications**  
Stephen O'Brien, *Columbia University, USA*

14:10      **Aqueous colloids of titanate nanotubes: physicochemical properties, self-assembly and applications**  
Dmitry V Bavykin\* and Frank C Walsh *University of Southampton, UK*

14:35      **A new route to the formation of nanoporous capsules using block copolymer thin films and colloids**  
Pavlina Mantzana  
*University of Leeds, UK*

15:00      **Binary colloidal alloys at liquid interfaces**  
T S Horozov\*, R Aveyard and J H Clint  
*University of Hull, UK*

15:25      **Afternoon Tea**

15:45      **Colloidal polystyrene-silica hybrid particles prepared via alcoholic dispersion polymerisation**  
Andreas Schmid\*, Syuji Fujii and Steven P Armes  
*University of Sheffield, UK*

16:10      **Aqueous block copolymer micelles: highly functional nanoparticle building blocks**  
Simon Biggs\*, Kenichi Sakai, Pavlina Mantzana, Timothy Addison, Gaelle Bacquey, Qingchun Yuan and Steven P Armes  
*University of Leeds, UK*

16:35      **From foams to dry water: phase inversion of nanoparticle-stabilised materials**  
Bernard P Binks\* and Ryo Murakami \*\*  
*University of Hull, UK*  
\*\* work being presented by Ryo Murakami

17:00      Close  
18:30      Dinner  
19:30      Poster Session and Wine Reception

Thursday 29<sup>th</sup> March

<b>SESSION 2</b>	<b>Bioanalysis</b> <b>Session Chair Simon Biggs</b>
09:00	<b>Keynote 2</b> Horst Weller, <i>University of Hamburg, Germany</i>
09:30	<b>Silica-coated semiconductor and magnetic quantum dots for bio-labeling applications</b> S Tamil Selvan,* Timothy Tan, Dong Kee Yi, Shujun Gao and Jackie Y Ying <i>Institute of Bioengineering and Nanotechnology, Singapore</i>
09:55	<b>Peptide-capped gold nanoparticles: towards artificial proteins...</b> Raphaël Lévy <i>University of Liverpool, UK</i>
10:20	<b>Ways for preparation of different core/shell silica nanospheres</b> Masih Darbandi* and Thomas Nann <i>Albert-Ludwig University Freiburg, Germany</i>
10:45	<b>Morning Coffee</b>
11:10	<b>Dopamine-mediated grafting of TiO<sub>2</sub> nanoparticles. Control over PEGylation and functionality</b> F Cellesi*, T Kotsokechagia and N Tirelli <i>University of Manchester, UK</i>
11:35	<b>A new metallopolymer: nanoparticle nanocomposite material</b> Jennifer L Brennan* and Robert J Forster <i>Dublin City University, Ireland</i>
12:00	Lunch & Poster Session
<b>SESSION 3</b>	<b>Manufacturing and Synthesis</b> <b>Session Chair Jason Riley</b>
14:00	<b>Keynote 3</b> <b>BioNanoInteraction; A rational approach to interactions between materials on the nano- and meso-scopic scale and living systems</b> Kenneth Dawson, <i>University College Dublin, Ireland</i>
14:30	<b>Synthesis and characterisation of new poly(2-vinylpyridine)-silica colloidal nanocomposite particles and their use as stimulus-responsive pickering emulsifiers</b> Jennifer A Balmer*, Damien Dupin, Andreas Schmid and Steven P Armes <i>University of Sheffield, UK</i>
14:55	<b>Novel Electric Field Driven Motion and Assembly of Anisotropic Colloidal Particles</b> Olivier J Cayre*, Hartmut A. Wege, Sumit Gangwal, Orlin D Velev and Vesselin N Paunov, <i>University of Leeds, UK</i>
15:20	<b>Afternoon Tea</b>
15:45	<b>Towards the intensive aqueous synthesis of inorganic nanoparticles</b> Richard Buscall*, Peter J Scales, Jill E Lye, Michael Owens and Serena J Williams, <i>ICI plc, UK</i>

- 16:10 **Synthesis and characterisation of air stable metal colloids by in situ alumina formation on metal aluminide nanoparticles**  
Mirza Cokoja\*, Harish Parala and Roland A Fischer  
*Ruhr-Universität Bochum, Germany*
- 16:35 **Synthesis, properties and perspectives of hybrid nanocrystal structures**  
Pantaleo Davide Cozzoli, Teresa Pellegrino and Liberato Manna\*  
*National Nanotechnology Laboratory of CNR-INFM, Italy*
- 17:00 **Extrinsic and intrinsic defects in nanocrystals**  
Erol Kucur, Wendelin Bücking, Oliver Ehlert, Udo Kielmann and Thomas Nann\*  
*Albert-Ludwig University Freiburg, Germany*
- 17 :25 Close
- 19 :00 Pre-dinner drinks
- 19 :30 Conference Dinner

Friday 30<sup>th</sup> March

<b>SESSION 4      Optical and Magnetic Properties</b>	
<b>Session Chair Karl Coleman</b>	
09:00	<b>Keynote 4</b> <b>Single Particle Spectroscopy</b> Prof Paul Mulvaney, <i>University of Melbourne, Australia</i>
09:30	<b>Electron Transfer at Q-dot Modified Electrodes</b> D J Riley, <i>Imperial College, UK</i>
09:55	<b>Colloidal synthesis and characterization of tetrapod-shaped magnetic nanocrystals</b> Pantaleo Davide Cozzoli,* Etienne Snoeck, Miguel Angel Garcia, Cinzia Giannini, Antonietta Guagliardi, Antonio Cervellino, Fabia Gozzo, Antonio Hernando, Klaus Achterhold, Nelica Ciobanu, Fritz Günter Parak, Roberto Cingolani and Liberato Manna <i>National Nanotechnology Laboratory of CNR-INFM, Italy</i>
10:20	<b>Morning Coffee</b>
10:40	<b>Core and shell magnetic nanoparticles - easy recyclable colloidal catalysts</b> P K Plucinski*, U Laska, C G Frost and G J Price <i>University of Bath, UK</i>
11:05	<b>Tuning of the magnetic properties of 2 nm size maghemite and cobalt ferrite particles prepared by organometallic synthesis</b> A Glaria,* M L Kahn, Andrea Falqui, Pierre Lecante, Vincent Collière, Marc Respaud and B Chaudret <i>CNRS Laboratoire de Chimie de Coordination, France</i>
11:30	<b>Fabrication of water-soluble magnetic nanoparticles using a simple reduction method</b> Le T Lu, Ian Robinson, Le D Tung, Simon Lee, Jon P Goff, Bien Tan, Andrew I Cooper, David G Fernig and Nguyen T K Thanh* <i>University of Liverpool, UK</i>
11:55	<b>Synthesis and assembly of iron oxide nanocrystals</b> Lennart Bergström* and Anwar Ahniyaz <i>Stockholm University, Sweden</i>
12:20	Closing remarks
12:30	Close