

# Nanoparticles with Morphological and Functional Anisotropy

Faraday Discussion



4-6 July 2016  
Glasgow, UK

## Monday 4 July

11:00	Registration, Tea and Coffee	
12:00	Lunch	
12:45	<b>Welcome and Introductions</b> <i>Luis Liz-Marzán, Chair of Scientific Committee</i>	
12:55	<b>Outline of Discussion Format</b> <i>Royal Society of Chemistry Publishing Editors</i>	
13:00	<b>Introductory Lecture</b> (Session Chair: Luis Liz-Marzán) <u>Catherine J. Murphy</u> <i>University of Illinois at Urbana Champaign</i>	<b>Paper 9301</b>
	<b>Session 1: Janus and Patchy Nanoparticles</b> (Session Chair: Axel H. E. Müller)	
14:00	<b>Natural selection in the colloid world: active chiral spirals</b> <u>Steve Granick &amp; Jie Zhang</u> <i>IBS Center for Soft and Living Matter, South Korea</i>	<b>Paper 9306</b>
14:05	<b>Synthesis of Janus plasmonic-magnetic, star-sphere nanoparticles, and their application in SERS detection</b> <u>Javier Reguera, Dorleta Jiménez de Aberasturi, Naomi Winckelmans, Judith Langer, Sara Bals &amp; Luis Liz-Marzan</u> <i>CIC biomaGUNE</i>	<b>Paper 10664</b>
14:10	<b>Self-folding nanostructures with imprint patterned surfaces (SNIPS)</b> <u>David Gracias, Hye Rin Kwag, Jeong-Hyun Cho, Si-Young Park &amp; Jaehyun Park</u> <i>Johns Hopkins University</i>	<b>Paper 10713</b>
14:15	Discussion	
15:30	Afternoon tea	
16:00	<b>Organic-inorganic patchy particles as a versatile platform for fluid-in-fluid dispersion stabilisation</b> <u>Krassimir Velikov, Elena Blank, Stoyan Smoukov &amp; Orlin Velev</u> <i>Unilever R&amp;D Vlardinghen</i>	<b>Paper 10747</b>
16:05	<b>Programmed assembly of oppositely charged homogeneously decorated and Janus particles</b> <u>Alla Synytska, Alina Kirillova &amp; Georgi Stoychev</u> <i>Leibniz Institute of Polymer Research Dresden</i>	<b>Paper 10742</b>
16:10	<b>Templated growth of gold satellites on dimpled silica cores</b> <u>Etienne Duguet, Cyril Chomette, Stéphane Mornet, Elham Yammine, Vinothan Manoharan, Nicholas Schade, Céline Hubert, Serge Ravaine, Adeline Perro &amp; Mona Tquer</u> <i>University of Bordeaux - CNRS</i>	<b>Paper 10749</b>
16:15	Discussion	
17:30	Flash poster presentations	
18:00	Poster Session and Wine Reception	

**Tuesday 5 July**

	<b>Session 2: Anisotropic Nanoparticles</b> (Session Chair: Alberto Striolo)	
09:00	<b>Presenting via skype - Optical anisotropy and sign reversal in layer-by-layer assembled films from chiral nanoparticles</b> <u>Nicholas Kotov</u> , Zhumei Liang, Jishu Han, Yunlong Zhou, Kai Sun & Andre de Moura <i>University of Michigan</i>	Paper 9304
09:05	<b>Template-assisted colloidal self-assembly of macroscopic magnetic metasurfaces</b> <u>Tobias König</u> , Martin Mayer, Moritz Tebbe, Christian Kuttner, Max Schnepf & Andreas Fery <i>Leibniz Institute of Polymer Research (IPF) Dresden</i>	Paper 10689
09:10	<b>Studying nanoparticles' 3D shape by aspects maps: Determination of the morphology of bacterial magnetic nanoparticles</b> <u>Davide Peddis</u> , Giuseppe Muscas, Roland Mathieu, P. Anil Kumar, Gaspare Varvaro, Gurvinder Singh, Inaki Orue, D. Gil Carton, Lourdes Marcano, Alicia Muela & Maria Fdez-Gubieda <i>ISM-CNR</i>	Paper 10729
09:15	Discussion	
10:30	Morning Tea	
11:00	<b>Linear assembly of patchy and non-patchy nanoparticles</b> <u>Eugenia Kumacheva</u> , Rachelle Choueiri, Elizabeth Galati, Anna Klinkova & Heloise Therien-Aubin <i>University of Toronto</i>	Paper 9303
11:05	<b>Gold nanorod synthesis catalysed by Au clusters</b> <u>Arturo López-Quintela</u> , Yasser Attia, Carlos Vazquez-Vazquez, María del Carmen Blanco-varela & David Buceta <i>University of Santiago de Compostela</i>	Paper 9432
11:10	<b>Gold nanotriangles decorated with superparamagnetic iron oxide nanoparticles: a compositional and microstructural study</b> <u>Anna Roig</u> , Jordan Hachtel, Siming Yu, Sokrates Pantelides, Martí Gich & Anna Laromaine <i>Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)</i>	Paper 10693
11:15	Discussion	
12:30	Lunch	
	<b>Session 3: Particles at interfaces</b> (Session Chair: Joerg Lahann)	
13:30	<b>Novel stabilisation of emulsions by soft particles: polyelectrolyte complexes</b> <u>Bernie Binks</u> , Ana Bago Rodriguez & Tomoko Sekine <i>University of Hull</i>	Paper 9305
13:35	<b>Numerical analysis of Pickering emulsion stability: insights from ABMD simulations</b> <u>Francois Sicard</u> & Alberto Striolo <i>University College London</i>	Paper 10732
13:40	<b>Wetting and orientation of catalytic Janus colloids at the surface of water</b> <u>Antonio Stocco</u> , Xiaolu Wang, Martin In, Christophe Blanc, Paolo Malgaretti & Maurizio Nobili <i>Laboratoire Charles Coulomb CNRS</i>	Paper 10721
13:45	Discussion	

15:00	Afternoon Tea	
15:30	<b>From near hard spheres to colloidal surfboards</b> Jan Vermant, Ljiljana Palangetic, Kirill Feldman, Raohael Schaller, Romana Kalt & Walter Caseri <i>ETH Zürich</i>	Paper 9307
15:35	<b>Anisotropic surface functionalization of Au nanorods driven by molecular architecture and curvature effects</b> <u>Estefania Gonzalez Soleyra</u> , Mario Tagliazucchi & Igual Szleifer <i>Northwestern University</i>	Paper 10706
15:40	<b>Anisotropic optical and conductive properties of oriented 1D-nanoparticle thin films made by spray-assisted self-assembly</b> <u>Matthias Pauly</u> , Sribharani Sekar, Vincent Lemaire, Hebing Hu & Gero Decher <i>Institut Charles Sadron (CNRS &amp; Strasbourg University, France)</i>	Paper 10735
15:45	<b>Behaviour of hybrid inside/out Janus nanotubes at an oil/water interface. A route to self-assembled nanofluidics?</b> <u>Antoine Thill</u> , Pierre Picot, Olivier Tache, Florent Malloggi & Thibaud Coradin <i>CEA</i>	Paper 10714
15:50	Discussion	
17:30	Close of sessions	
18:30	Pre-Dinner Drinks	
19:00	Conference Dinner	

**Wednesday 6 July**

	<b>Session 4: Applications</b> (Session Chair: Molly Stevens)	
09:00	<b>Surface heterogeneity: a friend or foe of protein adsorption – insights from theoretical simulations</b> <u>Irene Yarovsky</u> , Matthew Penna, Kamron Ley & Shane MacLaughlin <i>RMIT University</i>	Paper 9309
09:05	<b>Anisotropic lanthanide-based nanoclusters for imaging applications</b> <u>Richard Jones</u> , Xiaoping Yang, Shiging Wang, Tyler King, Christopher Kerr, Clement Blanchet, Dmitri Svergun, Robert Pal, A. Beeby, Katherine Brown, Lijie Zhang & Shaoming Huang <i>University of Texas</i>	Paper 10746
09:10	<b>A multi-coordinating polymer ligand optimized for the functionalization of metallic nanocrystals and nanorods</b> <u>Hedi Mattoussi</u> , Wentao Wang, Xin Ji & Hunter Burns <i>Florida State University</i>	Paper 10701
09:15	<b>Design of artificial membrane transporters from gold nanoparticles with controllable hydrophobicity</b> Marcin Grzelczak, Alexander Hill, Domagoj Belic, Dan Bradley, Casper Kunstmann-Olsen & <u>Mathias Brust</u> <i>University of Liverpool</i>	Paper 10715
09:20	Discussion	
11:00	Morning Tea	
11:30	<b>New route toward nanosized crystalline metal borides with tuneable stoichiometry and variable morphologies</b> Clément Sanchez, Guillaume Gouget, Patricia Beaunier & <u>David Portehault</u> <i>College de France, UPMC, CNRS</i>	Paper 9310
11:35	<b>Routes to the preparation of mixed monolayers of fluorinated and hydrogenated alkanethiolates grafted on the surface of gold nanoparticles</b> <u>Lucia Pasquato</u> , Maria Sologan, Cristina Cantarutti, Silvia Bidoggia, S. Polizzi & Paolo Pengo <i>University of Trieste</i>	Paper 10911
11:40	<b>Amphiphilic brush polymers produced using the RAFT polymerisation method stabilise and reduce the cell cytotoxicity of lipid lyotropic liquid crystalline nanoparticles</b> <u>Calum Drummond</u> , Jiali Zhai, Randy Survadnata, Bao Luan, Nham Tran, Tracey Hinton, Julian Ratcliffe & Xiaojuan Hao <i>CSIRO Melbourne</i>	Paper 10649
11:45	Discussion	
13:00	<b>Perspective Lecture: Rational design of ABC triblock terpolymer solution nanostructures with controlled patch morphology</b> <u>Axel H. E. Müller</u> <i>Johannes Gutenberg Universität Mainz</i>	Paper 9320
13:15	<b>Closing Remarks Symmetry Reduction in Nanoparticle Synthesis and Assembly</b> (Session Chair: Luis Liz-Marzán) <u>Younan Xia</u> <i>Georgia Institute of Technology</i>	Paper 9302
13:55	<b>Acknowledgements</b>	
14:00	<b>Close of meeting and Lunch</b>	

Presenting authors are indicated in the programme by an underline. The affiliation is for the presenting author. If the presenting author of your paper has changed since abstract selection please email [events@rsc.org](mailto:events@rsc.org). Please note that this is a draft programme and timings may change.