

Programme

Monday 15 June 2009

11:30	Registration
13:15	Welcome and Introductions: Wilhelm Huck, <i>University of Cambridge, UK</i>
Session 1	Soft Nanotechnology: mechanotransduction <i>in silico</i> and <i>in vitro</i>
	Session Chair: Wilhelm Huck, <i>University of Cambridge, UK</i>
13.30 Paper 1	Introductory Lecture Richard A L Jones* <i>University of Sheffield, UK</i>
14.30 Paper 2	Chemo and phototactic nano/microbots Ayusman Sen*, Michael Ibele, Yiyang Hong and Darrell Velegol <i>The Pennsylvania State University, USA</i>
Paper 3	The efficiency of encapsulation within surface rehydrated polymersomes A J Parnell*, N Tzokova, P D Topham, C M Fernyhough, A J Ryan and R A L Jones <i>University of Sheffield, UK</i>
15.30	Afternoon Tea
	Session Chair: Joachim Steinke, <i>Imperial College London, UK</i>
16.00 Paper 4	Molecular control of ionic conduction in polymer nanopores Eduardo R Cruz-Chu, Thorsten Ritz, Zuzanna S Siwy and Klaus Schulten* <i>University of Illinois, USA</i>
Paper 5	Nanomechanics of organic/inorganic interfaces: a theoretical insight Maria L Sushko* <i>University College London. UK</i>
17.00	Close of Session
17.00-18.00	Poster Session and Wine Reception

Tuesday 16 June 2009

Session 2	Polymer assembly: physical measurements
	Session Chair: Ullrich Steiner, <i>University of Cambridge, UK</i>
09:30 Paper 6	Solid state nanofibrils based on self-assemblies: from cleaving from self-assemblies to multilevel hierarchical constructs Olli Ikkala*, Robin H A Ras, Nikolay Houbenov, Janne Ruokolainen, Marjo Pääkkö, Janne Laine, Markku Leskelä, Lars A Berglund, Tom Lindström, Gerrit ten Brinke, Hermis Iatrou, Nikos Hadjichristidis and Charl F J Faul <i>Helsinki University of Technology, Finland</i>
Paper 7	Nanoparticles at electrified liquid-liquid interfaces: new options for electro-variable optics M E Flatté, A A Kornyshev* and M Urbakh <i>Imperial College London, UK</i>
Paper 8	Free-standing porous supramolecular assemblies of nanoparticles made using a double templating strategy Xing Yi Ling, In Yee Phang, David N Reinhoudt, G Julius Vansco and Jurriaan Huskens* <i>University of Twente, The Netherlands</i>
11.00	Morning Coffee
	Session Chair: Rein V Ulijn, <i>University of Strathclyde, UK</i>
11:30 Paper 9	Polymer crystallization under nano-confinement of droplets studied by molecular simulations Wenbing Hu*, Tao Cai, Yu Ma, Jamie K Hobbs, O Farrance and Günter Reiter <i>Nanjing University, China</i>
Paper 10	Nanostructured wrinkled surfaces for templating bionanoparticles Anne Horn, Heiko G Schoberth, Stephanie Hiltl, Arnaud Chiche, Qian Wang, Alexandra Schweikart, Andreas Fery and Alexander Böker* <i>University of Bayreuth, Germany</i>
Paper 11	Silica nano-particle super hydrophobic surfaces: the effects of surface morphology and trapped air pockets on hydrodynamics drainage forces Derek Y C Chan*, Md Hemayet Uddin, Kwun L Cho, Irving I Liaw, Robert N Lamb, Geoffrey W Stevens, Franz Grieser and Raymond R Dagastine <i>University of Melbourne, Australia</i>
13.00	Lunch with Poster Session

Session 3	Encoding self-assembly from DNA and peptides to synthetic polymers
	Session Chair: Klaus Schulten, <i>University of Illinois, USA</i>
14.30 Paper 12	Counterion-activated polyions as soft sensing systems in lipid bilayer membranes: from cell-penetrating peptides to DNA Toshihide Takeuchi, Naomi Sakai and Stefan Matile* <i>University of Geneva, Switzerland</i>
Paper 13	Recognition of sequence-information in synthetic copolymer chains by a conformationally-constrained tweezer molecule H M Colquhoun*, Zhixue Zhu, Christine J Cardin, Michael G B Drew and Yu Gan <i>University of Reading, UK</i>
Paper 14	DNA self-assembly: from 2D to 3D Chengde Mao* <i>Purdue University, USA</i>
16.00	Afternoon Tea
	Session Chair: Stefan Matile, <i>University of Geneva, Switzerland</i>
16.30 Paper 15	Self-assembly of liquid crystal block copolymer PEG-<i>b</i>-smectic polymer in pure state and in dilute aqueous solution Bing Xu, Rafael Piñol*, Merveille Nono-Djamen, Sandrine Pensec, Patrick Keller, Pierre-Antoine Albouy, Daniel Lévy and Min-Hu Li <i>Institut Curie, France</i>
Paper 16	A novel self-healing supramolecular polymer system Stefano Burattini, Howard M Colquhoun, Barnaby W Greenland and W Hayes* <i>University of Reading, UK</i>
17:30	Close of Session
19.00	Pre-Dinner Drinks, Royal Society (<i>tickets required</i>)
19:30	Conference Dinner, Royal Society (<i>tickets required</i>)

Wednesday 17 June 2009

Session 4	Functional Assembly using biological and synthetic components
	Session Chair: Howard Colquhoun, <i>University of Reading, UK</i>
09:00 Paper 17	Quantitative approaches to defining normal and aberrant protein homeostasis Michele Vendruscolo* and Christopher M Dobson <i>University of Cambridge, UK</i>
Paper 18	Evolving nanomaterials using enzyme-driven dynamic peptide libraries (eDPL) Apurba K Das, Andrew Hirst and R V Ulijn* <i>University of Strathclyde, UK</i>
Paper 19	Rational design of peptide-based building blocks in nanoscience and synthetic biology Craig T Armstrong, Aimee L Boyle, Elizabeth H C Bromley, Zahra N Mahmoud, Lisa Smith, Andrew R Thomson and Derek N Woolfson* <i>University of Bristol, UK</i>
10:30	Morning Coffee
	Session Chair: David Reinhoudt, <i>University of Twente, The Netherlands</i>
11:00 Paper 20	The influence of viscosity on the functioning of molecular motors Martin Klok, Leon P B M Janssen, Wesley R Browne** and Ben L Feringa* <i>University of Groningen, The Netherlands</i> <i>Work being presented by **</i>
Paper 21	Template sol-gel synthesis of mesostructured silica composites using metal complexes bearing amphiphilic side chains: immobilization of a polymeric Pd complex formed by a metallophilic interaction Wataru Otani, Kazushi Kinbara and Takuzo Aida* <i>University of Tokyo, Japan</i>
Paper 22	Self-assembled interpenetrating networks by orthogonal self assembly of surfactants and hydrogelators. Aurelir M Brizard, Marc C A Stuart and Jan van Esch* <i>Delft Chem Tech, The Netherlands</i>
12:30 Paper 23	Concluding Remarks George Whitesides* <i>Harvard University, USA</i>
13:00	Acknowledgements: Wilhelm Huck, <i>University of Cambridge, UK</i>
13:15	Close of Meeting

* denotes corresponding author to whom affiliation applies