

	Cruciform Lecture Theatre 2	Cruciform Lecture Theatre 1	Chemistry Lecture Theatre	Chemistry Auditorium
	<p>Session: Materials at the Bio-Ceramic Interface Session Chair: Stephen Rimmer <i>University of Sheffield, UK</i></p> <p>Keynote: Silicon substituted apatite for bone graft applications Serena Best <i>University of Cambridge, UK</i></p> <p>TheraGlass: a vehicle for delivery of bioactive materials Xiaobin Zhao, <i>NovaThera Ltd, UK</i></p> <p>TBA</p> <p>Characterisation of the self-assembly of peptide-functionalised gold nanoparticles L Koh <i>Imperial College London, UK</i></p>	<p>Session: Bio-Nanotechnology Session Chair: Molly Stephens, <i>Imperial College London, UK</i></p> <p>Keynote: Title TBC Darrin Pochan <i>University of Delaware, USA</i></p> <p>Rapid zeptomolar protease detection using peptide-functionalised gold nanoparticles A Laromaine <i>Imperial College London, UK</i></p> <p>Understanding the molecular structure of Fmoc-peptide gels A M Smith, <i>University of Manchester, UK</i></p> <p>Towards a molecular level understanding of peptide-mineral interactions: a computational and experimental study Siddharth V Patwardhan <i>Nottingham Trent University, UK</i></p>	<p>Session: Synthesis of Framework Materials by Design Session chair: Neil Champness <i>University of Nottingham, UK</i></p> <p>Keynote: Molecular tectonics: from simple molecules to complex molecular networks Wais Hosseini, <i>Universite Louis Pasteur, France</i></p> <p>Open-framework molecular materials showing porosity and magnetic ordering Jaume Veciana, <i>Institut de Ciència Materials de Barcelona (CSIC), Spain</i></p> <p>Zeolitic organic-inorganic hybrids - a new class of porous metal phosphonate materials Ian J Shannon, <i>University of Birmingham, UK</i></p> <p>Solvent-free synthesis, and some 'design' aspects of metal-organic frameworks Stuart L James, <i>Queen's University Belfast, UK</i></p>	<p>Session: Solid State I Session Chair: Paul McMillan, <i>UCL, UK</i></p> <p>Keynote: Reactivity of simple molecules under pressure: fundamentals and potential applications Roberto Bini <i>University of Florence, Italy</i></p> <p>X-ray scattering studies of levitated refractory oxide liquids Martin Wilding, <i>University of Wales, UK</i></p> <p>The ultra-rapid microwave synthesis of transition metal carbides S Vallance, <i>University of Nottingham, UK</i></p> <p>A high pressure study of gallosilicate natrolite G L Little, <i>University of Birmingham, UK</i></p>
14.20				
15.00				
15.20				
15.40				
16.00	Refreshments			
				<p>Session Chair: Matthias Epple <i>Universität Duisburg-Essen, Germany</i></p> <p>Application of TEDDI technique to 'image' the formation of crystalline aluminophosphate materials under hydrothermal conditions Simon D M Jacques, <i>UCL, UK</i></p> <p>Theoretical insights into high-k dielectrics on silicon J L Gavartin, <i>Accelrys Ltd, UK</i></p> <p>Ordered TiOx nanostructures A C Papageorgiou, <i>University College London, UK</i></p> <p>Structure and anion insertion reactions of Sr₂Co₂O₅ E C Sullivan, <i>University of Birmingham, UK</i></p>
16.30	<p>Doped iron-oxide nanoparticles for tumour therapy via magnetic field hyperthermia Philip Drake, <i>Industrial Technology Research Institute, Taiwan</i></p> <p>The activity of diatom inspired synthetic polyamines in silicification David Belton <i>Nottingham Trent University, UK</i></p> <p>Does architecture of an additive have an important role to play in the precipitation and dissolution of silica? Graham Tibburey <i>Nottingham Trent University, UK</i></p>	<p>Oxidation-responsive nanocarriers and inflammation targeting N Tirelli <i>University of Manchester, UK</i></p> <p>Molecularly imprinted multi-layer core-shell nanoparticles via surface grafting Andrew G Mayes <i>University of East Anglia, UK</i></p> <p>A real-time study of the reversible supramolecular assembly of functionalized nanoparticles onto and from molecular printboards Xing Yi Ling <i>University of Twente, The Netherlands</i></p> <p>Plant viral building blocks for the construction of functional arrays Nicole F Steinmetz, <i>John Innes Centre, UK</i></p>	<p>Guanidine based hydrogen bonded networks Kari Rissanen, <i>University of Jyväskylä, Finland</i></p> <p>Ionothermal synthesis - designing new types of nanoporous framework material by changing the synthesis medium David Wragg, <i>University of St Andrews, UK</i></p> <p>Engineering functional materials by halogen bonding Pierangelo Metrangolo, <i>Politecnico di Milano, Italy</i></p> <p>A family of nanoporous materials based on an amino acid backbone Jean-Noël Rebilly, <i>University of Liverpool, UK</i></p>	
16.50				
17.10				
17.30	<p>A MAS-NMR and Rietveld study of mixed calcium/strontium apatites Adam Calver <i>Imperial College London, UK</i></p>			
17.50	Poster welcome drinks reception (North and South Cloisters and JBR)			

Tuesday 3 July

<p>Plenary lecture: 'The Chemical Imagination at Work in Very Tight Places' Roald Hoffmann , Cornell University, USA Session Chair: Peter Edwards, University of Oxford, UK</p>		Cruciform Lecture Theatre 1	Chemistry Lecture Theatre
9.00	Cruciform Lecture Theatre 2	Chemistry Auditorium	
	<p>Session: Electronic and Opto-Electronic Polymers Session Chair: Saif Haque, Imperial College London, UK</p>	<p>Session: From Nanotubes to Nanowires Session Chair: Karl Coelman, University of Durham, UK</p>	<p>Session: Materials for Sustainable Energy: Fuel Cells, Hydrogen Generation and Storage (I) Session Chair: Patric Jannasch Lund University, Sweden</p>
10.00	<p>Keynote: Putting organic polymers into molecular electronics Klaus Müllen, Max-Planck Institute for Polymer Research, Germany</p>	<p>Keynote: Title TBC Alan Windle, University of Cambridge, UK</p>	<p>Keynote: "Microblock" ionomer-membranes: enhancement of membrane performance in fuel cells through control of ionomer sequence-distribution Howard M Colquhoun, University of Reading, UK</p>
10.40	<p>Preparation and properties of 2,7-linked-3,6-protected carbazole main chain polymers and copolymers Ahmed Iraqi, University of Sheffield, UK</p>	<p>New mechanical properties of carbon nanotubes fibers Cécile Zakri, Centre de Recherche Paul Pascal, France</p>	<p>Mesoporous poly (benzimidazole) J Weber, Max-Planck-Institute of Colloids and Interfaces, Germany</p>
11.00	Refreshments		
11.30	<p>Electronic and optoelectronic polymers Martin Heeney, Merck Chemicals, UK</p>	<p>Synthesis and characterisation of highly ordered cobalt-magnetite nanocable arrays Justin D Holmes, University College Cork, Ireland</p>	<p>Proton-conducting membranes based on polysulfones carrying sulfonated and phosphonated aromatic side chains Patric Jannasch, Lund University, Sweden</p>
11.50	<p>Exciton coupling in highly ordered oligo- and polythiophenes Johannes Gierschner, University of Mons-Hainaut, Belgium</p>	<p>Influence of silver ions on the growth mode of platinum on gold nanorods Marek Grzelczak, Universidade de Vigo, Spain</p>	<p>Sol-gel synthesis of indium oxide: formation of high pressure phase (corundum-type In₂O₃) under ambient conditions and ageing-induced mesocrystallisation Alexander Gurlo, Darmstadt University of Technology, Germany</p>
12.10	<p>Multi-layer gravure printing of organic TFTs J H G Steinke, Imperial College London, UK</p>	<p>Evolution of ferberite nanostructures: from 1-D nanowires to 3-D nanoflowers Yanqiu Zhu, University of Nottingham, UK</p>	<p>Ordering of the Bi-O' network in Bi³⁺ Pyrochlores Andrew L Hector, University of Southampton, UK</p>
12.30	<p>Systematic investigation into the factors affecting the emission of electrophosphorescent materials Hugo Bronstein, Imperial College London, UK</p>	<p>Liquid crystal - nanotube dispersions Ingo Dierking, University of Manchester, UK</p>	<p>Tunable shape-memory materials synthesised via entropy-driven ring-opening metathesis polymerisation of bile acid-based macrocycles Julien E Gautrot, Université de Montréal, Canada</p>
12.50	Lunch and posters		

	Cruciform Lecture Theatre 2	Chemistry Auditorium	Cruciform Lecture Theatre 1	Chemistry Lecture Theatre
	Session: Electronic and Opto-Electronic Polymers Session chair: Joachim Steinke, Imperial College London, UK	Session: From Nanotubes to Nanowires Session chair: Lee Cronin, University of Glasgow, UK	Session: Materials Synthesis of Complex Structures (II) Session chair: Rüdiger Knipf, Max-Planck-Institute for Chemical Physics of Solids, Germany	Solid State III Session chair: Neil Hyatt, University of Sheffield, UK
14.20	Keynote: The use of heavy metal complexes in organic LEDs and solar cells Marc Thompson, University of Southern California, USA	Keynote: Carbon nanotube networks and their industrial applications Siegmar Roth, Max-Planck Institute for Solid State Research, Germany	Keynote: Bionanotechnology approach in material synthesis and device fabrication by applying peptide/protein assemblies Hiroshi Matsui, Hunter College - City University of New York, USA	Keynote: Stuffed rare earth pyrochlores – changing magnetic connectivity through chemistry Robert Cava, Princeton University, USA
15.00	Spectroelectrochemical studies on novel pi-electron materials based on ter-thiophenes fused with TTFs or Fluorenes Jan E Lohr, University of Strathclyde, UK	Assembly of nanotube-nanoparticle networks Andrei N Khlobystov, University of Nottingham, UK	Surface modification of calcium phosphate nanoparticles and their application for gene transfer Matthias Epple, Universität Duisburg-Essen, Germany	Soft-lithographic patterning of functional oxides Sajid U Khan, University of Twente, The Netherlands
15.20	Functionalization of carbon nanotubes and carbon nanohorns for electronic applications S Campidelli, Università di Trieste, Italy	Covalent functionalization of single walled carbon nanotubes (SWCNTs) and fullerenes via a zwitterion approach Wei Zhang, Massachusetts Institute of Technology, USA	Ultrasonic nebulizer assisted routes to formation of ceramic structures D Walsh, University of Bristol, UK	Point defects in ZnO Alexey A Sokol, The Royal Institution of Great Britain, UK
15.40	Tetrahydrofulvalene derivatives as building blocks of electronic frameworks Concepción Rovira, Institut de Ciència de Materials de Barcelona (CSIC), Spain	Chemically modified single-walled carbon nanotubes: synthesis, properties and application in polymer composites Karl S Coleman, University of Durham, UK	Nanoengineered multifunctional polymer-based capsules: microreactors for (bio)-chemical reactions, sensing and delivery systems Gleb B Sukhorukov, Queen Mary University of London, UK	The family of Si-B-N-C ceramics: paving the way to industrial scale production Martin Jansen and Marcus Weinmann, Max-Planck-Institute, Germany
16.00	Refreshments			
16.30	Waveguiding, microcavity effects and optically pumped lasing in single polymer nanowires Gareth Redmond, Tyndall National Institute, Ireland	Synthesis of one-dimensional titanium dioxide nanostructures Milo Shaffer, Imperial College London, UK	Bio-inspired polymer-inorganic hybrid materials Ulrich Steiner, University of Cambridge, UK	Bismuth based perovskites synthesized at ambient pressure: searching for multiferroics John B Claridge, University of Liverpool, UK
16.50	Synthesis of novel silole copolymers as electroactive materials Sven Horst, Imperial College London, UK	Tantalum chalcogenide nanowires; growth, structure and properties Charlie Dunnill, University of Glasgow, UK	Breaking the mould: changing the face of crystal growth N B J Hetherington, University of Bristol, UK	Complex glasses as precursors for nanocomposites William T Petuskey, Arizona State University, USA
17.10	Synthesis of new iridium complexes bearing sulfonyl and fluorine substituents and effect of functionalization on their photophysical properties Roberta Ragni, Università degli Studi di Bari, Italy	Layered chalcogenide nanoparticles and nanotubes W Tremel, Johannes Gutenberg-Universität Mainz, Germany	Confinement effects in biosilicification mimetic studies Thibaud Coradin, Chimie de la Matière Condensée de Paris, France	Anion ordering and thermoelectric properties in chalcogen-containing skutterudites Paz Vaqueiro, Heriot-Watt University, UK
17.30	Electron transfer in nanostructured molecular solar cells Saif A Haque, Imperial College London, UK	The synthesis and characterisation of ferromagnetic CaMn₂O₄ nanowires D C Arnold, University College Cork, Ireland	Self-Assembly and mineralization of artificial spicules of marine sponges W Tremel, Johannes Gutenberg-Universität Mainz, Germany	New thermoelectric materials: the (Bi_{1-x}Mn_x)₂Te₃ homologous series and Mn doped BiTe (m:n = 1:2) J W G Bos, University of Edinburgh, UK
17.50	Close of sessions			

Wednesday 4 July

		Bloomsbury Theatre Plenary lecture: 'Polymer networks in the liquid crystalline state of matter' Heino Finkelmann, <i>Albert-Ludwigs-Universität Freiburg, Germany</i> Session Chair: Duncan Bruce, <i>University of York, UK</i>		
	Cruciform Lecture Theatre 1	Chemistry Auditorium	Chemistry Lecture Theatre	Cruciform Lecture Theatre 2
9.00				
	Session: Nanoparticles Session Chair: Mark Green <i>King's College London, UK</i>	Session: Catalysis and Green Materials Session Chair: John Evans <i>University of Durham, UK</i>	Session: Photoactive Thin Films and Particles Session Chair: Stuart Irvine, <i>University of Wales, Bangor, UK</i>	Session: Colloidal Crystal Materials Session Chair: David McComb <i>Imperial College London, UK</i>
10.00	Keynote: Title TBC Chris Murray <i>Pennsylvania State University, USA</i>	Keynote: In situ characterisation of nanoparticulate rhodium catalysts by combined X-ray and IR spectroscopies John Evans <i>University of Southampton, UK</i>	Keynote: Tuned light emission from nanoparticles of cadmium chalcogenides or of indium nitride David Cole-Hamilton, <i>University of St Andrews, UK</i>	Keynote: Enhancing the optical response of colloidal crystals through materials chemistry Paul V Braun <i>University of Illinois, USA</i>
10.40	Synthesis and characterisation of lead chalcogenide nanoparticles Deborah Berhanu, <i>University of Manchester, UK</i>	Microfabricated reactor based in situ cells for studies of catalysts by X-ray absorption and Raman spectroscopy under reaction conditions Asterios Gavriilidis, <i>University College London, UK</i>	Tantalum nitride nanomaterials James Tabernor, <i>University of Manchester, UK</i>	Design of self-assembled metal oxide micelles for encapsulation of bacteria in bio-control applications Vadim G Kessler <i>SLU, Sweden</i>
11.00				
11.30	Ab initio study of the electronic structure and properties of charged defects in HFO2 David Muñoz Ramo <i>UCL, UK</i>	Mild synthetic routes to complex metal oxides with control of crystal chemistry and crystal form Richard I Walton, <i>University of Warwick, UK</i>	Exciting MgO nanocrystallites K P McKenna, <i>London Centre for Nanotechnology, UK</i>	Nanostructured organic thin films prepared by colloidal crystal templating M A McLachlan, <i>Imperial College London, UK</i>
11.50	Probing Au nanoparticles with EPR spectroscopy Victor Chechik, <i>University of York, UK</i>	The adsorption of CO with Pd clusters on CeO_{2-x} ultrathin films Q Chen, <i>University College London, UK</i>	Growth and characterisation of CdZnS window layers by metal organic chemical vapour deposition (MOCVD) for CdTe solar cells E W Jones, <i>University of Wales, Bangor, UK</i>	Mesoporous graphitic carbon nitride: a versatile material for catalysis and the generation of nanostructured metal nitrides Arne Thomas, <i>Max-Planck-Institute of Colloids and Interfaces, Germany</i>
12.10	Coinage nanoparticle in a metal oxide thin film prepared by aerosol assisted chemical vapor deposition Paolo Melgari, <i>University College London, UK</i>	Direct synthesis of hydrogen peroxide from H₂ and O₂ using supported Au-Pd catalysts Adrian Thomas, <i>Cardiff University, UK</i>	Single source routes to deposition of transition metal selenide and phosphide thin films by MOCVD Arunkumar Panneerselvam, <i>University of Manchester, UK</i>	Ordered nanoporous metal oxides: synthesis and application as gas sensors Michael Tiemann <i>Justus Liebig University, Germany</i>
12.30	Evolutionary algorithms for small sized inorganic nanoparticles Scott M Woodley <i>The Royal Institution of Great Britain, UK</i>	Towards nitrogen analogues of Mars-van Krevelen processes? J S J Hargreaves <i>University of Glasgow, UK</i>	Microwave-assisted synthesis in ionic liquids: a novel approach to nanoscale functional materials C Feldmann <i>University of Karlsruhe, Germany</i>	Directing colloidal self-assembly N Thomson <i>Imperial College London, UK</i>
12.50				

Lunch and posters

	Chemistry Auditorium	Cruciform Lecture Theatre 1	Chemistry Lecture Theatre	Cruciform Lecture Theatre 2
	Session: Materials for Sustainable Energy: Battery Materials Session Chair: Howard Colquhoun, <i>University of Reading, UK</i>	Session: Nanostructured Polymers Session Chair: TBC	Session: Functional Liquid Crystals Session Chair: Isabel Saez <i>University of York, UK</i>	Session: Hydrogels and Peptide Self-Assembly Session Chair: Stephen Rimmer <i>University of Sheffield, UK</i>
14.20	Keynote: Moving from bulk to nano-architected electrodes to design better Li-ion batteries Jean-Marie Tarascon <i>Université de Picardie Jules Verne, France</i>	Keynote: Nondisruptive block copolymer-based lithographic processes on the nanoscopic level Thomas Russell <i>University of Massachusetts, USA</i>	Keynote: Organic nanostructures from self-assembly of rod amphiphiles Myongsoo Lee <i>Yonsei University, South Korea</i>	Keynote: Hydrogels for neural tissue engineering Molly Shoichet <i>University of Toronto, Canada</i>
15.00	Single source precursors for the chemical vapour deposition of ME₂ (M = Ti, Zr, Hf; E = S, Se) Stuart D Reid, <i>University of Southampton, UK</i>	Graft-copolymers of a cross-linkable, cycloliner, polycarbosilane with poly(methyl methacrylate): precursors to ultralow-k films and nanoporous ceramics Leonard V Interrante, <i>Rensselaer Polytechnic Institute, USA</i>	Incorporating functional units into the columnar mesophases Andrew N Cammidge, <i>University of East Anglia, UK</i>	Bio-functionalized conjugated oligomers and polymers for advanced enantioselective sensing Gianluca M Farinola, <i>Università degli Studi di Bari, Italy</i>
15.20	Mesoporous materials as positive electrodes for Li-ion batteries Aurélie Débart <i>University of St Andrews, UK</i>	Self-assembling "pseudo-polymers" W Hayes, <i>University of Reading, UK</i>	Star-shaped mesogens containing chromophores: synthesis and properties of functional liquid crystals M Lehmann, <i>Chemnitz University of Technology, Germany</i>	Thermo-reversible PNIPAAm - peptide bio-conjugate hydrogels F Stolca, <i>University of Manchester, UK</i>
15.40	Ion conducting solid electrolytes based on nanostructured polymers Trang Phan, <i>Université d'Aix-Marseille 1, France</i>	Thermoresponsive "particle pumps": controlled release of organic nanoparticles from macroporous polymers Haifei Zhang, <i>University of Liverpool, UK</i>	Cellulose fibers functionalized with liquid crystalline polymers prepared by ATRP Robert Westlund, <i>Royal Institute of Technology, Sweden</i>	Oligomeric precursors to amphiphilic networks for use in tissue engineering J Collier, <i>University of Sheffield, UK</i>
16.00		Refreshments		
			Session Chair: Robert Deschenaux, <i>Université de Neuchâtel, Switzerland</i>	
16.30	Varying the carrier concentration in lithium conducting garnets Michael P O'Callaghan, <i>University of Nottingham, UK</i>	Inorganic-organic hybrid materials as "composite precursors" for the development of homogeneous nanostructured mixed oxides Silvia Gross, <i>University of Padova, Italy</i>	Anisotropic nanoparticles in anisotropic fluids: carbon nanotube-liquid crystal composites Jan P F Lagerwall, <i>Universität Stuttgart, Germany</i>	Synthesis of novel amphiphilic pseudo-peptides and their self-assembling within supramolecular stimuli-sensitive hydrogels Andreea Pasc-Banu, <i>Henri Poincaré University Nancy 1, France</i>
16.50	Supercapacitors based on partial pyrolysis of polyacrylonitrile F J Davis, <i>University of Reading, UK</i>	Synthesis of new electroactive polymers for light emitting devices Charlotte K Williams, <i>Imperial College London, UK</i>	Frustration in a non-chiral ordered fluid Verena Görtz, <i>University of York, UK</i>	Responsive microgels for restoring the mechanical properties of degenerated intervertebral discs Brian R Saunders, <i>University of Manchester, UK</i>
17.10	Ions: the neglected carriers in organic electronics George G Malliaras, <i>Cornell University, USA</i>	Charge transfer interaction can influence the self-assembly of fullerene/copolymer mixtures Ari Laiho, <i>Helsinki University of Technology, Finland</i>	Chirality transfer from an optically active mesogenic oligomer to macroscopic order in the liquid crystalline phase Atsushi Yoshizawa, <i>Hiroaki University, Japan</i>	Peptide-based enzyme-responsive polymer hydrogel particles Rein V Ulijn, <i>University of Manchester, UK</i>
17.30	Substituted pyridine ligands for use in solar cell dyes Lucy P Moorcraft, <i>University of Edinburgh, UK</i>	TBA	Functional liquid crystal dendrimers Isabel Saez <i>University of York, UK</i>	The self-assembly of 'surfactant-like' peptides Dave J Adams, <i>Unilever Corporate Research, UK</i>
17.50		Close of conference		