

11th International Conference on Materials Chemistry (MC11)
8-11 July 2013, University of Warwick, UK

OVERVIEW PROGRAMME

Monday 8 July 2013

09:30	Refreshments & registration			
11:45	Lunch & registration			
12:50	PLENARY: Professor Dan Shechtman			
14:00	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
15:30	Refreshments			
16:00	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
17:00	Time for delegates to move between theatres			
17:05	SPECIAL EVENING LECTURE: Professor Harry Kroto FRS			
18:05	Welcome / poster reception			
19:30	Close			

Tuesday 9 July 2013

09:00	PLENARY: Professor Samuel Stupp			
10:00	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
11:10	Refreshments			
11:40	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
12:40	Lunch and posters			
14:10	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
15:40	Refreshments			
16:20	PLENARY: Professor Allan Hoffman			
17:20	Poster reception			
19:15	Close			

Wednesday 10 July 2013

08:30	PLENARY: Professor Clare Grey FRS			
09:30	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
10:40	Refreshments			
11:10	PLENARY: Professor Andrew Cooper			
12:10	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
13:10	Lunch and posters			
14:50	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
16:20	Refreshments			
16:50	PLENARY: Professor Paul Mulvaney			
17:50	Close			
19:30	Pre-dinner drinks			
20:00	Conference banquet			

Thursday 11 July 2013

09:00	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
10:30	Refreshments			
11:00	Biomaterials	Energy Materials	Environmental Materials	Magnetic, Electronic and Optical Materials
12:00	Time for delegates to move between theatres			
12:05	PLENARY: Professor Robert Cava			
13:15	Close and Lunch			

Monday 8 July 2013

09:30	Refreshments & registration								
11:45	Lunch & registration								
12:50	Conference opens and Plenary lecture (Dan Shechtman)								
			Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials
14:00	Keynote		Molecular Self-Assembly of Short Aromatic Peptides: From Biology to Nanotechnology and Material Science Gazit, Ehud		Solar cells which like music and other surprising observations Durrant, James		Molecularly imprinted polymers for environmental technologies Selligren, Börje		Directly-printed quantum-tuned nanoparticle solar cells Kim, Jin Young
14:30	Contributed oral	B_O01	Multi-component Dipeptide Hydrogels Adams, Dave	EM_O01	Enhancement of Gold Cluster-Sensitized Photocurrents by Gold Nanoparticles Kogo, Atsushi	ENV_O01	Nanoporous Photocatalytic TiO₂ – PES Mixed Matrix Membrane for Water Purification Fischer, Kristina	MEOM_OO1	Large area, reconfigurable self-assembly of nematic liquid crystal-functionalized gold nanorods Hegmann, Torsten
14:50	Contributed oral	B_O02	Molecular Origins of the Antifouling Properties of Surface Grafted Peptoid Polymer Brushes Lau, K. H, Aaron	EM_O02	A Novel Nanoarchitecture for Complete Light Absorption and Charge Collection in Bulk Heterojunction Solar Cells Muñoz-Rojas, David	ENV_O02	TBC	MEOM_OO2	The development of biotemplated magnetic nanoparticle patterns for potential use in data storage Galloway, Johanna
15:10	Contributed oral	B_O03	Fluorescent microcapsules produced from pollen Bakker, Katrina (TBC)	EM_O03	TBC	ENV_O03	The Immobilization of MacMillan Catalyst via Controlled Radical Polymerization: Catalytic activity, Recovery and Reuse Moore, Beth	MEOM_OO3	Hourglass-like Ni(OH)₂ nanomaterial modified glassy carbon electrode as a biosensor for detection of L-histidine Nai, Jianwei
15:30	Refreshments								
			Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials
16:00	Contributed oral	B_O04	Thermogelling block copolymers for protein/drug delivery and tissue engineering applications Loh, Xian Jun	EM_O04	Atomistic simulation of thermoelectric materials: from band engineering to nanostructuring Parker, Steve	ENV_O04	Polyelectrolyte core-shell particles with porous shells by double emulsion template suspension polymerisation Yeates, Stephen	MEOM_OO4	Transition-metal dopants for Ge₂Sb₂Te₅ phase-change materials: an <i>ab initio</i> molecular-dynamics study Skelton, Jonathan
16:20	Contributed oral	B_O05	Synthetic scaffolds for hard tissue engineering: from thermochemical fabrication to clinic Mallik, Kajal	EM_O05	Extended Modules Material Assembly Dyer, Matthew	ENV_O05	Biopolymers as a flexible resource for nanochemistry Schnepp, Zoe	MEOM_OO5	Droplet Flow Reactors for Controlled Continuous Nanocrystal Synthesis Nightingale, Adrian
16:40	Contributed oral	B_O06	Conjugated polymer nanoparticles for cell labelling, imaging and drug delivery Tuncel, Donus	EM_O06	Phase selection and optimisation of tin sulfide for low-cost solar cells Burton, Lee	ENV_O06	Wastes in the way towards a green economy Martin-Luengo, M A	MEOM_OO6	Characterisation of a nanocomposite printable ink with a pressure sensitive nonlinear electrical resistance Szablewski, Marek
17:00	Time for delegates to move between theatres								
17:05	Special evening lecture (Harry Kroto FRS)								
18:05	Welcome / poster reception								
19:30	Close								

Tuesday 9 July 2013

09:00 Plenary lecture (Samuel Stupp)									
		Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials	
10:00	Keynote		New paradigms in bio-inspired materials chemistry: biomimetic potential at the proto-life/synthetic biology interface Mann, Stephen		In-situ neutron diffraction: Crystallography under reaction conditions McIntosh, Steven		Microporous ladder polymers for highly-permeable gas separation membranes Guiver, Michael D.		Electric-double-layer interfaces applied to organic electronics: opto-electronic conversion and molecular cluster batteries Awaga, Kunio
10:30	Contributed oral	B_O07	Engineering silaffins: recombinant, self-assembling peptides with high cationic charge density for silica biomineralisation Zerfaß, Christian	EM_O07	Investigation into the effect of Si doping on the structure and electrical properties of Sr_{1-y}Ca_yMnO_{3.6} and Sr_{1-y}Ca_yFeO_{3.6} SOFC cathode materials Porras, Jose	ENV_O07	Novel Polymers of Intrinsic Microporosity (PIMs) for gas separation membranes Carta, Mariolina	MEOM_O07	Using self-assembled monolayers in organic thin-film transistors Jones, Gavin
10:50	Contributed oral	B_O08	Cerium Oxide: An enzymatic mimic for synthesis of supramolecular hydrogels Patil, Avinash	EM_O08	Electrical conductivity and Seebeck coefficient in nanocrystalline mesoscopic SrTiO₃ Gregori, Giuliano	ENV_O08	Nanoporous Polymers for Separation Applications Weber, Jens	MEOM_O08	Electronics and Optics of Graphene and Graphene Analogues Hu, Pingan
11:10 Refreshments									
		Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials	
11:40	Contributed oral	B_O09	Synthesis of Porous Hydroxyapatite Nanotubes Khushalani, Deepa	EM_O09	Defect Engineering in BaSnO₃: Towards High Performance Indium Free Transparent Conducting Oxides for Solar Cell Applications Scanlon, David	ENV_O09	Exploring the Structural Energy Landscape of Ultra Microporous Framework Materials Trewin, Abbie	MEOM_O09	De novo materials discovery: virtual screening of novel potential spin crossover complexes Deeth, Robert
12:00	Contributed oral	B_O10	Preparation and characterisation of silver-loaded apatitic cement for bone repair Jacquart, Sylvania	EM_O10	Cation Ordering effects and Proton exchange in Garnet Li Ion Conducting Solid Electrolytes Howard, Matt	ENV_O10	Shedding light on the microscopic structure of conjugated microporous polymers and related polymeric solids Zwijenburg, Martijn	MEOM_O10	Fullerene-containing phthalocyanine nanoporous crystals Bezzu, C Grazia
12:20	Contributed oral	B_O11	Synthesis of bioactive core-shell organic-inorganic hybrid particles Neville, Frances	EM_O11	Understanding Local Behaviour: superionics and photocatalysts Allan, Neil	ENV_O11	The Preparation and Applications of Silica Based Adsorbent Materials from Low Quality Waste Glass Laycock, Christian	MEOM_O11	Synthesis and Magnetic Properties of a Cyclodimeric Copper(II) Porphyrin with a Trapped Endohedral Metallofullerene Sc₃C₂@C₈₀ Hajjaj, Fatin
12:40 Lunch and posters									
		Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials	
14:20	Keynote		Chemoenzymatic routes to biobased poly(*-hydroxyfatty acids), self-assembling oligopeptides and poly(glycolipids) Gross, Richard		Preparation and Characterization of Porous Organic Polymers (POPs) Supported Noble Metal Catalysts for Energy and Environmental Applications Liu, Chang-jun		Title TBC Albrecht-Schmitt, Thomas		Title TBC Swager, Timothy M.
14:50	Contributed oral	B_O12	Functional Degradable Poly(carbonate)s Williams, Rebecca	EM_O12	Zr-doped α-Fe₂O₃ photoanodes for efficient solar water splitting Shen, Shaohua	ENV_O12	Titanium silicate ETS-4 and CTS-1: aspects of structure and CO₂ sorption Cheung, Ocean	MEOM_O12	Formation of responsive nanostructures by RAFT polymerisation and morphology switching behaviour in response to a stimulus Doncom, Kay
15:10	Contributed oral	B_O13	Solid Lipid Nanoparticles as novel template for hierarchical porous silica and hybrid drug loaded materials Pasc, Andreea	EM_O13	What makes fullerene acceptors special as electron acceptors in organic solar cells and how to replace them Liu, Tao	ENV_O13	New Mg-Al Layered Double Hydroxide generated via the novel alkoxide-free sol-gel synthesis for water purification Chubar, Natalia	MEOM_O13	Computational Modeling of the Structure and Electronic Transport through Large-area Molecular Electronic Junctions Containing Molecules Covalently Bonded to Graphene and Metal Electrodes Stoyanov, Stanislav
15:30	Contributed oral	B_O14	Cryopreservation of Cells using Peptidomimetic Macromolecules Deller, Robert	EM_O14	Directed Self-assembly of Amphiphilic Peptides by Protein Fractals and Stabilization of Light Harvesting Complexes in hydrogels Nadeem, Javid	ENV_O14	A Sustainable Production of Porous Carbons using Hydrothermal Carbonization Titirici, Maria	MEOM_O14	Enhanced THz switching ratio in VO₂ film and its application in metamaterials based dynamic resonance Shi, Qiwu
15:50 Refreshments									
16:20 Plenary lecture (Allan Hoffman)									
17:20 Poster reception									
19:00 Close									

Wednesday 10 July 2013

08:30	Plenary lecture (Clare Grey FRS)								
			Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials
09:30	Keynote		The role of biomaterials in the development of in vitro engineered disease models Hutmacher, Dietmar		Speaker TBC		Nanoengineering the active site in clean catalytic technologies Lee, Adam		X marks the spot - novel single-molecule cruciform structures for photonics applications Skabara, Peter J.
10:00	Contributed oral	B_O15	Supramolecular manipulation of cell function Jonkheijm, Pascal	EM_O15	Self-assembly synthesis of nanosheet TiO₂(B) and its lithium ion intercalation performance Hou, Ming Yan	ENV_O15	In Situ Generated Metal Nanoparticles on Porous Copper Chlorophosphate Frameworks for Catalytic Aerobic Oxidations Hinde, Christopher	MEOM_O15	Photoluminescence Enhancement and Colour Tuning in Conjugated Polymer-Diureasil Hybrids Evans, Rachel
10:20	Contributed oral	B_O16	Bespoke Synthetic Polymers for Sol-Gel Hybrids for Tissue Engineering Connell, Louise	EM_O16	3D self-supported metal oxide electrode for lithium ion batteries Chen, Xin	ENV_O16	Oxygen-promoted crotyl alcohol selective oxidation over Au nanoparticles: a computational study Zeinalipour-Yazdi, Constantinos	MEOM_O16	Self-organisation of white light in a photopolymer: A spontaneous route to 3-D optical and structural waveguide lattices Saravanamuttu, Kalaichelvi
10:40	Refreshments								
11:10	Plenary lecture (Andrew Cooper)								
			Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials
12:10	Contributed oral	B_O17	DNA Smart Materials Liu, Dongsheng	EM_O17	A "natural superlattice" oxytelluride as a promising thermoelectric material for waste heat recovery Vaquerio, Paz	ENV_O17	Catalytic conversion of hemicellulose to sugars and sugar alcohols Shiju, Nirappurackal	MEOM_O17	New Materials for High-Efficiency Organic Light-Emitting Devices (OLEDs) Bryce, Martin
12:30	Contributed oral	B_O18	Materials for Glycomics and as Glycomimetics Gibson, Matthew	EM_O18	Use of grazing incidence diffraction to probe electrode inhomogeneity and phase behaviour of LiFePO₄ and Li(Fe,Mn)PO₄ Hector, Andrew	ENV_O18	Nickel Nanoparticles Embedded in the Framework of Mesoporous TiO₂: Efficient and Highly Stable Catalysts for HDC Li, Hui	MEOM_O18	Polymer Composites for 3D Printing of Functional Devices Leigh, Simon
12:50	Contributed oral	B_O19	Porous ZnO nanorod for targeted delivery of doxorubicin: <i>in vitro</i> and <i>in vivo</i> response for therapeutic applications Mitra, Shouvik	EM_O19	Nanocomposite Capacitors: Design, Scaling, Film Fabrication and Testing, and Applications in DC-DC Power Conversion O'Brien, Stephen	ENV_O19	Functionalised Carbon Adsorbents from Brown Coal for CO₂ Separation from Post-Combustion Flue Gas Streams Ciddor, Lachlan	MEOM_O19	Surface Oxygen Defects in SrTiO₃ and KTaO₃: Characterising their Role in the Formation of a Surface 2D Electron Gas Longsdail, Andrew
13:10	Lunch and posters								
			Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials
14:50	Keynote		Polyurethane-based Scaffolds for Myocardial Tissue Engineering Ciardelli, Gianluca		Title TBC Grant, Patrick		Title TBC Hyatt, Neil		Title TBC Cheetham, Anthony K.
15:20	Contributed oral	B_O20	Bioactive sol-gel hybrid scaffolds using natural polymers for tissue engineering Poologasundarampillai, Gowsihan	EM_O20	Understanding the Surface Properties and Oxygen Diffusion of (La,Sr)₂CoO₄ Thin Film Cathodes Burriel, Mónica	ENV_O20	Fine mineral separation using magnetic core-shell particles Moreno-Atanasio, Roberto	MEOM_O20	Metal-Oxide Nanoparticle Mediated Enhanced Raman Scattering and Its Use in Direct Monitoring of Interfacial Chemical Reactions Li, Li
15:40	Contributed oral	B_O21	Surface Engineering to Control Protein Conditioning and Neural Progenitor Cell Responses Roach, Paul	EM_O21	A long term stability study of benzyl radiation-grafted alkaline anion exchange membranes for alkaline fuel cells, and their comparable model compounds Murphy, Sam	ENV_O21	Paints and Coatings Containing Bactericidal V₂O₅ Nanoparticles Combat Marine Fouling Tremel, Wolfgang	MEOM_O21	Colossal magnetoresistance in NdMnAsO_{1-x}F_x oxypnictides McLaughlin, Abbie
16:00	Contributed oral	B_O22	Mediating Role of Polymer Brush Coatings on Polyester Scaffolds For Tissue Regeneration: From Poly(ethylene glycol) to Poly(oxazoline) Smart Grafts Benetti, Edmondo Maria	EM_O22	Graphene-sealed Tin Nanorods with Highly Enhanced Lithium-ion Storage Properties Ju, Jing	ENV_O22	The use of NIR absorbing primers and backing coats to improve the energy efficiency of the cure of polyester coil coatings Gowenlock, Cathy	MEOM_O22	Nanoscale design of noncentrosymmetric oxides with large electric polarizations Rondinelli, James
16:20	Refreshments								
16:50	Plenary lecture (Paul Mulvaney)								
17:50	Close								
19:30	Pre-dinner drinks								
20:00	Conference banquet								

Thursday 11 July 2013

		Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials	
09:00	Keynote		Title TBC Hilborn, Jöns		Oxygen transport and electrochemical performances in Ca₃Co₄O₉ derivatives as SOFC cathode Vannier, Rose-Noëlle		Title TBC Antonietti, Markus		Molecular spintronics using carbon nanostructures Bogani, Lapo
09:30	Contributed oral	B_O23	Injectable Doubly Cross-Linked Microgels for Improving the Mechanical Properties of Degenerated Intervertebral Discs Saunders, Brian	EM_O23	Total Scattering Investigation of Complex Electrolytes for SOFC Malavasi, Lorenzo	ENV_O23	A Microblock Ionomer for Hydrogen Production by Membrane Electrolysis Colquhoun, Howard	MEOM_O23	Self-assembled organic materials for magneto-optical applications Henrich, Gunther
09:50	Contributed oral	B_O24	Novel in-situ setting bioactive glass-based calcium phosphate bone cement Kent, Niall	EM_O24	High Voltage Hybrid Organic Photovoltaics using a Zinc Oxide Acceptor alongside a Boron Subphthalocyanine Chloride Donor Dearden, Chloe	ENV_O24	Water Adsorption and Interactions on Rutile TiO₂(110) for Applications in Solar Hydrogen Production: A Hybrid-Exchange Density Functional Study. Patel, Monica	MEOM_O24	Optical engineering of metal oxides: Don't judge a crystal by its colour Bristow, Jessica
10:10	Contributed oral	B_O25	Novel biomimetic coacervate compartments as highly versatile and durable mesoreactors Williams, David	EM_O25	Phase variation, electron transport and recombination in ultra-fast sintered TiO₂ films for dye-sensitized solar cells Carnie, Matthew	ENV_O25	Luminescent Cation-exchange Quantum dot Nanosensor for the detection of µg/L Lead Concentrations Frost, Mark	MEOM_O25	Tuneable Device Scale Assemblies of Gold Nanorods in organic solvent by drop deposition Martin, Alfonso
10:30	Refreshments								
		Biomaterials		Energy Materials		Environmental Materials		Magnetic, Electronic and Optical Materials	
11:00	Contributed oral	B_O26	How do antiadhesive polymers affect bacterial-bacterial communication networks? Fernandez-Trillo, Francisco	EM_O26	Screening MOFs for Ammonia borane confinement: a promising hydrogen storage material Gadipelli, Srinivas	ENV_O26	Inhibition of corrosion-driven organic coating delamination on hot dip galvanized steel by graphene nanoplatelets Glover, Carol	MEOM_O26	Two Series of Transition Metal Complexes as Potential Molecular Semiconductors Silber, Georg
11:20	Contributed oral	B_O27	Graphene Oxide and Transmission Electron Microscopy: A clearer picture of soft nanomaterials Patterson, Joseph	EM_O27	Identification of key parameters in the search for ideal organic compounds used as electrode materials in Li-ion batteries Tomerini, Daniele	ENV_O27	Improved Photocatalytic H₂ Evolution Performance by Synergetic Effect of Inter-connected Facets in Hierarchical Anatase Spheres Wang, Danping	MEOM_O27	Calcination-free photolithography of rare-earth-ion-doped phosphor films on flexible sheets Wantanabe, Satoshi
11:40	Contributed oral	B_O28	Exploring the catalytic activity of some biomaterials in C-C bond formation Diaz Diaz, David	EM_O28	Temperature Dependence of PSTFSI/PEO System as Single-ion Polymer Electrolyte Aabloo, Alvo	ENV_O28	Surface ligand mediated growth of CuPt rods Yu, Fengjiao	MEOM_O28	Oragnometallics for Opto-Electronic (O-E) Applications: Design, Synthesis and Photo-Physics of Poly(Metalla-ynes) Khan, Muhammad
12:00	Time for delegates to move between theatres								
12:05	Plenary lecture (Robert Cava) and Chairs' summary								
13:15	Close and Lunch								