

Monday 11 April 2011

Registration

14:00 **University Place, Exhibition Area & Foyer**

Transport to Manchester United Football Club

17:00 **Brunswick Street**

Welcome Drinks & Social Event

17:30 - 20:00 **MUFC, Old Trafford**

Transport to the University of Manchester

20:00

Tuesday 12 April 2011

Plenary: Leif Hammerstrom

09:00 - 09:40 University Place, Theatre B Chair: Prof Peter Tasker

Plen01 artificial photosynthesis for solar fuel production

09:00 Leif Hammarström

PLENARY *Uppsala University, Uppsala, Sweden*

Parallel 1 Session 1: Supramolecular & Coordination Chemistry

09:40 - 10:30 University Place, Theatre B Chair: Prof Jan Reedijk

SC_O01 Metals in Biomimetic Cavities

09:40 olivia reinaud

KEYNOTE *Paris Descartes Univ., Paris, France*

SC_O02 Supramolecular Crystal Chemistry with Porphyrin Tinkertoys

10:10 Israel Goldberg

Tel Aviv University, Tel Aviv, Israel

Parallel 2 Session 1: Organometallic & Catalysis

09:40 - 10:30 University Place, Theatre A Chair: Prof Peter Edwards

OC_O01 Design of New Catalytic Reactions for Sustainable Chemistry

09:40 David Milstein

KEYNOTE *Weizmann Institute of Science, Rehovot, Israel*

OC_O02 Boremium Cations for Direct Arene C-H Borylation

10:10 Michael Ingleson, *Alessandro Del Grosso*, *Paul Singleton*

University of Manchester, Manchester, UK

Parallel 3 Session 1: Energy & Photochemistry

09:40 - 10:30 Crawford House, Theatre 1 Chair: Professor Paul O'Brien

EP_O01 Photon management with lanthanides for solar cells

09:40 Andries Meijerink¹, *Bryan van der Ende*¹, *Linda Aarts*¹, *Timon van*

KEYNOTE *Wijngaarden*¹, *Joren Eilers*¹, *Daniel Biner*², *Karl Krämer*², *Hans Güdel*²

¹*Debye Institute for nanomaterials Science, Utrecht, Netherlands,*

²*Department of Chemistry, Universitat Bern, Bern, Sweden*

EP_O02 DFT and Synchrotron-base X-ray Studies on Photoactivable Anticancer Complexes

10:10 Luca Salassa, *Peter J Sadler*

University of Warwick, Coventry, UK

Coffee

10:30 - 11:00

Parallel 1 Session 1: Supramolecular & Coordination Chemistry

11:00 - 12:20 University Place, Theatre B Chair: Prof Jan Reedijk

SC_O03 METAL-MEDIATED APPROACH TOWARDS MULTI-CHROMOPHORE ASSEMBLIES

11:00 Elisabetta Iengo¹, *Ennio Zangrando*¹, *Enzo Alessio*¹, *Maria Teresa Indelli*², *Franco Scandola*², *Frank Würthner*³

¹*Department of Chemistry, University of Trieste, Trieste, Italy,* ²*Department of Chemistry, University of Ferrara, Ferrara, Italy,* ³*Institute for Organic Chemistry, University of Würzburg, Würzburg, Germany*

- SC_O04
11:20 Self-assembly of smart molecular architectures towards sensors for explosives detection
Partha Sarathi Mukherjee
Indian Institute of Science, Bangalore, India
- SC_O05
11:40 Oscillatory guest exchange in POM capsules: A ligand triggered, chemically damped oscillation
Haralampos Miras, *Marjorie Sorus, Leroy Cronin*
University of Glasgow, Glasgow, UK
- SC_O06
12:00 Exploiting outer sphere coordination chemistry in extractive metallurgy
Peter Tasker¹, Jennifer Turkington¹, Ross Ellis¹, Kathryn Sole², Patricia Richardson¹, Martin Schroeder³, David Henderson¹
¹University of Edinburgh, Edinburgh, UK, ²Anglo Research Laboratories, Theta, Johannesburg, South Africa, ³University of Nottingham, Nottingham, UK

Parallel 2 Session 1: Organometallic & Catalysis

- 11:00 - 12:20 **University Place, Theatre A** **Chair: Prof Peter Edwards**
- OC_O03
11:00 Pacifying Ruthenium Olefin Metathesis Catalysts with Sulfur Chelates
Gabriel Lemcoff
Ben-Gurion University of the Negev, Beer-Sheva, Israel
- OC_O04
11:20 Alkylation Reactions of Group 6 Imido Halide Complexes: Understanding Catalytic Olefin Dimerisation
William Wright¹, Antonis Messinis¹, Andrei Batsanov¹, Judith Howard¹, Martin Hanton², Robert Tooze², Philip Dyer¹
¹Centre for Sustainable Process Chemistry, Department of Chemistry, Durham University, Durham, UK, ²Sasol Technology U.K., St. Andrews, Scotland, UK
- OC_O05
11:40 Synthesis and Characterisation of Metal Rich Molecules - Bridging the Gap between Molecular Compounds and Intermetallic Phases
Timo Bollermann¹, *Thomas Cadenbach¹, Christian Gemel¹, Mariusz Molon¹, Kerstin Freitag¹, Arik Puls¹, Rüdiger Seidel¹, Moritz von Hopffgarten², Gernot Frenking², Roland Fischer¹*
¹Ruhr University Bochum, Bochum, Germany, ²Philipps University Marburg, Marburg, Germany
- OC_O06
12:00 Ambiphilic C-H Activation: Mechanism and applications in catalysis
Youcef Boutadla¹, David Davies¹, Stuart Macgregor²
¹University of Leicester, Leicester, UK, ²Heriot-Watt University, Edinburgh, UK

Parallel 3 Session 1: Energy & Photochemistry

- 11:00 - 12:20 **Crawford House, Theatre 1** **Chair: Professor Paul O'Brien**
- EP_O03
11:00 Two-photon fluorescence of transition metal complexes bearing polar terpyridyl-stilbene chromophores
Louise Natrajan, *Steven Magennis, Anita Toulmin, Alex Chew, Paul Johnson*
University of Manchester, Manchester, UK
- EP_O04
11:20 Photoactivatable Pt^{IV} anticancer complexes
Nicky Farrer¹, Julie A Woods², Luca Salassa¹, Yao Zhao¹, Kim Robinson², Fiona S Mackay³, Guy Clarkson¹, Peter J Sadler¹
¹University of Warwick, Coventry, UK, ²Ninewells Hospital & Medical School, Dundee, UK, ³University of Edinburgh, Edinburgh, UK

EP_O05 Anchoring Water Oxidation Catalysts: Towards a Water Splitting
11:40 Photochemical Device
Xavier Sala¹, Laia Francàs¹, Joan Aguiló¹, Lluís Escriche¹, Antoni Llobet^{2,1}
¹Universitat Autònoma de Barcelona, Departament de Química, Cerdanyola del Vallès, E08193 Barcelona, Spain, ²Institute of Chemical Research of Catalonia (ICIQ), Avinguda Països Catalans 16, E43007 Tarragona, Spain

EP_O06 Ru Based Water Oxidation Catalysts
12:00 Antoni Llobet
Institute of Chemical Research of Catalonia (ICIQ), Tarragona, Spain

Lunch

12:20 - 13:50

Plenary: Sylviane Sabo-Etienne

13:50 - 14:30 University Place, Theatre B Chair: Prof Paul O'Brien

Plen02 Bond tuning, when using silanes, boranes or dihydrogen, at stoichiometric
13:50 and catalytic levels.
PLENARY Sylviane SABO-ETIENNE¹
¹CNRS, LCC, Toulouse, France, ²Université de Toulouse, Toulouse, France

Parallel 1 Session 2: Supramolecular & Coordination Chemistry

14:30 - 15:10 University Place, Theatre B Chair: Prof Lee Brammer

SC_O07 When Chemistry Stacks-Up: A Bottom-up Approach to Graphene Fragments
14:30 Sylvia Draper
University of Dublin, Trinity College, Dublin, Ireland

SC_O08 Nano-architecture of highly-crystalline preferentially-oriented MOF nanofilms
14:50 on solid surfaces
Rie Makiura¹, Hiroshi Kitagawa²
¹Osaka Prefecture University, Sakai, Osaka, Japan, ²Kyoto University, Kyoto, Japan

Parallel 2 Session 2: Organometallic & Catalysis

14:30 - 16:20 University Place, Theatre A Chair: Prof Rinaldo Poli

OC_O07 Model compounds for anionic ethene polymerisation
14:30 Jörg Saßmannshausen¹, Jan Klett²
¹University College London, London, UK, ²University of Strathclyde, Glasgow, UK

OC_O08 Rhodium complexes with N-heterocyclic carbenes as highly selective
14:50 catalysts of hydroformylation
Wojciech Gil, Anna Trzeciak
University of Wrocław, Faculty of Chemistry, Wrocław, Poland

Parallel 3 Session 2: Energy & Photochemistry

14:30 - 16:20 Crawford House, Theatre 1 Chair: Prof Antoni Llobet

EP_O07 A sunlight-driven photocatalytic redox-cycle based on molecular vanadium
14:30 oxide clusters
Johannes Forster, Benedikt Roesner, Carsten Streb
University of Erlangen, Erlangen, Bavaria, Germany

EP_O08 Ru-catalyzed hydrogen transfer from aqueous bio-glycerol to carbon
14:50 dioxide: converting two waste into valuable products
Paolo Stufano, Angela Dibenedetto, Michele Aresta
University of Bari, Bari, Italy

Coffee

15:10 - 15:40

Parallel 1 Session 2: Supramolecular & Coordination Chemistry

15:40 - 16:20 University Place, Theatre B

Chair: Prof Lee Brammer

- SC_O09 15:40 Activation of Dioxygen by Mononuclear Non-Heme Iron Complexes. Generation and Spectroscopic Identification of Reaction Intermediates.
Frederic Banse
Laboratoire de Chimie Inorganique - Institut de Chimie Moleculaire et des Materiaux d'Orsay - Univ. Paris-Sud XI, ORSAY, France
- SC_O10 16:00 The development of transition metal complexes that target and interact non-covalently with proteins
Anne-K. Duhme-Klair, Axel Mueller, Anthony Wilkinson, Keith Wilson, Catherine Davies, Nicholas Housden
University of York, York, UK

Parallell 2 Session 2: Organometallic & Catalysis

15:40 - 16:20 University Place, Theatre A

Chair: Prof Rinaldo Poli

- OC_O09 15:40 Si-H, Si-X, C-X and H-H bond activation reactions of titanium hydrazide (Ti=NNR₂) complexes
Pei Jen Tiong¹, Ainara Nova², Philip Mountford¹, Eric Clot²
¹Oxford University, Oxon, UK, ²Université Montpellier 2, Montpellier Cedex 5, France
- OC_O10 16:00 Aluminum Hydride Species Supported on γ-Alumina: Structure Investigation, Catalytic Survey and Mechanistic Considerations.
Etienne Mazoyer², Julien Trébosc¹, Anne Baudouin², Olivier Boyron², Jérémie Pelletier², Jean-Marie Basset², Marta Vitorino¹, Christopher Nicholas³, Régis Gauvin¹, Mostafa Taoufik², Laurent Delevoye¹
¹UCCS - UMR 8181 CNRS - University of Lille 1, Villeneuve d'Ascq, France, ²C2P2 - UMR 5265 CNRS - CPE Lyon, Villeurbanne, France, ³Exploratory Catalysis Research, UOP LLC, Des Plaines, USA

Parallel 3 Session 2: Energy & Photochemistry

15:40 - 16:00 Crawford House, Theatre 1

Chair: Prof Antoni Llobet

- EP_O09 15:40 p-Type photocathodes for tandem dye-sensitized solar cells
Elizabeth Gibson
University of Nottingham, Nottingham, UK
- EP_O10 16:00 Metal-Semiconductor Composites for Solar Fuel Synthesis: Metal Nanoparticle Cocatalyst Modification and Photonic Materials Toward Device Fabrication
Nicole Hondow², Yi-Hsin Chou¹, Kasim Sader³, Rik Brydson², Richard Douthwaite¹
¹University of York, York, UK, ²University of Leeds, Leeds, UK, ³Daresbury Laboratories, Warrington, UK

Plenary: Paul Beer

16:20 - 17:00 University Place, Theatre B

Chair: Prof Michele Aresta

- Plen03 16:20 Interlocked Host Molecules for Anion Recognition and Sensing
Paul Beer
University of Oxford, Oxford, UK
- PLENARY

Poster session



17:00 - 18:30 University Place, Exhibition Area

Wednesday 13 April 2011

Plenary: Marku Rasanen

09:00 - 09:40 University Place, Theatre B

Chair: Prof Dan Meyerstein

Plen04

Noble-gas Chemistry

09:00

Markku Räsänen

PLENARY

University of Helsinki, Helsinki, Finland

Parallel 1 Session 3: Supramolecular & Coordination Chemistry

09:40 - 10:30 University Place, Theatre B

Chair: TBC

SC_O11

Magnetic memory and quantum tunnelling effects at the nanoscale in surface-wired molecules

09:40

KEYNOTE

Matteo Mannini¹, Marie-Anne Arrio², Anne-Laure Barra³, Francesco Pineider¹, Maria Jesus Rodriguez-Douton⁴, Philippe Saintavi², Lorenzo Sorace¹, Erik Tancin⁴, Federico Totti¹, Andrea Cornia⁴, Roberta Sessoli¹
¹Department of Chemistry, INSTM and ISTM-CNR, Sesto Fiorentino, Italy, ²IMPMC-CNRS, Université Pierre et Marie Curie, Paris, France, ³LNCMI-CNRS, Grenoble, France, ⁴Department of Chemistry and INSTM, University of Modena and Reggio Emilia, Modena, Italy

SC_O12

Employment of pseudohalides in higher oxidation state manganese cluster chemistry: From beautiful cages to high-spin molecules and single-molecule magnets

10:10

Dimitris I Alexandropoulos¹, Manolis J Manos², Anastasios J Tasiopoulos², Constantina Papatriantafyllopoulou³, Wolfgang Wernsdorfer⁴, Spyros P Perlepes¹, George Christou³, Theocharis C Stamatatos¹
¹University of Patras, Patras, Greece, ²University of Cyprus, Nicosia, Cyprus, ³University of Florida, Gainesville, USA, ⁴Université J Fourier, Grenoble, France

Parallel 2 Session 3: Bioinorganic & Metalloenzymes

09:40 - 10:30 University Place, Theatre A

Chair: Dr Patrick McGowan

BM_O01

Combating Cancer with Metal Compounds - Approaches and Perspectives

09:40

KEYNOTE

Bernhard Keppler

Institute of Inorganic Chemistry, University Vienna, Vienna, Austria

BM_O02

Fighting Cancer with Precious Metals: New Platinum Drug Candidates with Dual DNA Binding and Histone Deacetylase Inhibitory Activity

10:10

James Parker¹, Darren Griffith¹, Maria Morgan¹, Hasan Nimir¹, Denise Egan^{1,2}, Brian Duff^{1,2}, Anna Kisova-Halamikova^{1,3}, Viktor Brabec^{1,3}, Celine J. Marmion¹
¹Royal College of Surgeons in Ireland, Dublin, Ireland, ²Institute of Technology, Tallaght, Dublin, Ireland, ³Masaryk University, Brno, Czech Republic

Parallel 3 Session 3: Main Group

09:40 - 10:30 Crawford House, Theatre 1

Chair: Prof John Nixon

MG_O01

The Role of Polyphosphorus Moieties in Transition Metal Chemistry

09:40

KEYNOTE

Manfred Scheer

University of Regensburg, Regensburg, Germany

MG_O02

On the Potential of Ionic Liquids in Inorganic Synthesis- *The Case of Halogen-/Chalcogen-rich Compounds -*

10:10

Michael Wolff, Dominic Freudenmann, Claus Feldmann
Karlsruhe Institute of Technology, Karlsruhe, Germany

Coffee

10:30 - 11:00

Parallel 1 Session 3: Supramolecular & Coordination Chemistry

11:00 - 12:20 University Place, Theatre B

Chair: TBC

- SC_O13 11:00 Supramolecular Approaches to Nanoscopic Coordination Cages and Amphiphilic Coordination Networks
Wolfgang Schmitt¹, Lei Zhang¹, John Breen¹, Rodolphe Clerac¹, Camelia Onet¹
¹Trinity College Dublin, University of Dublin, Dublin, Ireland, ²CNRS, Centre de Recherche Paul Pascal, Pessac, France
- SC_O14 11:20 Purple is the New Green : Molecular Spin Cluster Arrays of Purple Heterometallic Rings
Grigore A. Timco¹, Laura Carthy¹, Thomas B. Faust¹, Eric J. M. McInnes¹, Christopher A. Muryn¹, Robin G. Pritchard¹, Simon Teat², Floriana Tuna¹, George F. S. Whitehead¹, Richard E. P. Winpenny^{1,3}
¹School of Chemistry, University of Manchester, Manchester, UK, ²Advanced Light Source, Berkeley Lab, Berkeley, USA, ³Photon Science Institute, University of Manchester, Manchester, UK
- SC_O15 11:40 Dinuclear Lanthanide Complexes as Spin-Based Quantum Gates
Guillem Aromi¹, David Aguila¹, Leoni Barrios¹, Olivier Roubeau², Fernando Luis², Marco Evangelisti², Simon Teat³
¹Universitat de Barcelona, Barcelona, Spain, ²Universidad de Zaragoza, Zaragoza, Spain, ³Advanced Light Source, Berkeley, USA
- SC_O16 12:00 On the track of magnetic polynuclear complexes
Dominique Luneau
Université de Lyon, Lyon, France

Parallel 2 Session 3: Bioinorganic & Metalloenzymes

11:00 - 12:20 University Place, Theatre A

Chair: Dr Patrick McGowan

- BM_O03 11:00 A New Class of Vitamin B₁₂ with tuneable Coordination and Redox properties
Kai Zhou, Felix Zelder
University of Zurich, Zurich, Switzerland
- BM_O04 11:20 "Salan" Ti(IV) Complexes: The Love-Hate Relationship between Cytotoxicity and Hydrolysis
Edit Y. Tshuva
Hebrew University of Jerusalem, Jerusalem, Israel
- BM_O05 11:40 Bio-inspired polymeric materials functionalised with models for the diiron sub-unit of [FeFe]-hydrogenase
Xiaoming Liu¹, Xiang Ru¹, Caixia Zhan¹, Zhenhong Wei¹, Dave Evens²
¹Nanchang University, Nanchang, China, ²John Innes Centre, Norwich, UK
- BM_O06 12:00 "Biomimetic Rocks": Calcium Manganese Oxides as Water Oxidation Catalysts
Philipp Kurz
Institute for Inorganic Chemistry, Christian Albrechts University, Kiel, Germany

Parallel 3 Session 3: Main Group

11:00 - 12:20 Crawford House, Theatre 1

Chair: Prof John Nixon

- MG_O03
11:00 The versatile chemistry of N-heterocyclic phosphonium ions: organocatalysts, slightly frustrated Lewis pairs, and stabilization of metal anions
Sebastian Burck¹, Dietrich Gudat¹, Imre Hajdok¹, Martin Nieger¹, Oliver Puntigam¹, Birgit Stadelmann¹
¹University of Stuttgart, Stuttgart, Germany, ²University of Helsinki, Helsinki, Finland
- MG_O04
11:20 Chemistry of halogenated closo-dodecaborates [B₁₂X₁₂]²⁻ (X = F, Cl, Br, I)
Carsten Knapp
Albert-Ludwigs-Universität, Freiburg, Germany
- MG_O05
11:40 Nitrogen-rich coordination compounds of silicon and related elements
Peter Portius¹, Mike Towrie², Martin Davis¹, Lara James¹
¹The University of Sheffield, Sheffield, UK, ²STFC Rutherford Appleton Lab., Harwell Science and Innovation Campus, UK
- MG_O06
12:00 Pnictogen-centered Cations: Synthesis, Characterization and Quantum Chemical Calculations
Kai-Oliver Feldmann^{1,2}, Jan J. Weigand¹
¹Institut für Anorganische und Analytische Chemie, Westfälische Wilhelms-Universität, Münster, Germany, ²Graduate School of Chemistry, Münster, Germany

Lunch

12:20 - 13:50

Plenary: Claudio Luchinat

13:50 - 14:30 University Place, Theatre B

Chair: Prof Malcolm Halcrow

- Plen05
13:50 Tools to address metalloprotein dynamics and its functional significance
Claudio Luchinat
PLENARY
University of Florence, Florence, Italy

Parallel 1 Session 4: Organometallic & Catalysis

14:30 - 15:10 University Place, Theatre B

Chair: Prof Phil Mountford

- OC_O11
14:30 Challenging the Norm: Catalytic Impact of Abnormal Carbene Ligands
Martin Albrecht
University College Dublin, Dublin, Ireland
- OC_O12
14:50 Metal Complexes Containing Macrocyclic Polycarbene Ligands - Synthesis and Coordination Modes
Christian Schulte to Brinke, F. Ekkehardt Hahn
Westfälische Wilhelms Universität Münster, Münster, Germany

Parallel 2 Session 4: Bioinorganic & Metalloenzymes

14:30 - 15:10 University Place, Theatre A

Chair: Prof David Collison

- BM_O07
14:30 Crystallographic snapshots of the reaction of aromatic C-H with O₂ catalyzed by a protein-bound iron complex
Christine Cavazza², Constance Bocho², Pierre Rousselot-Pailley¹, Philippe Carpentier², Mickael Cherrier², Caroline Marchi-Delapierre¹, Juan Fontecilla Camps², Stéphane Ménage¹
¹LCBM-Université de grenoble, grenoble, France, ²LCCP/IBS CEA-grenoble, grenoble, France

BM_O08 14:50 Tuning coordination chemistry to optimise receptor protein binding
John Greenman¹, Rachel Smith¹, Abid Khan¹, Dominique Schols², Erik De Clercq², Tim Hubin³, Steve Archibald¹
¹University of Hull, Hull, UK, ²Katholieke Universiteit, Leuven, Belgium,
³Southwestern Oklahoma State University, Weatherford, USA

Parallel 3 Session 4: Main Group

14:30 - 15:10 Crawford House, Theatre 1

Chair: Prof Paul O'Brien

MG_O07 14:30 Lewis Acid Fragmentation of a Lithium Aryloxide Cage: Generation of New Heterometallic Aluminium-Lithium Species
Marta E. G. Mosquera, Tomas Cuenca, M^a Teresa Muñoz, Carmen Urbaneja
 Universidad de Alcalá, Alcalá de Henares, Madrid, Spain

MG_O08 14:50 Catalysis from Chalk: Towards Asymmetric Calcium Catalysts
Benjamin Ward
 Cardiff University, Cardiff, UK

Coffee

15:10 - 15:40

Parallel 1 Session 4: Organometallic & Catalysis

15:40 - 16:20 University Place, Theatre B

Chair: Prof Phil Mountford

OC_O13 15:40 Recent Advances in Gold-N-Heterocyclic Carbene Mediated Catalysis
Steven Nolan
 University of St Andrews, St Andrews, UK

OC_O14 16:00 Yes they can: N-heterocyclic carbenes which readily add ammonia, carbon monoxide and other small molecules
Ulrich Siemeling¹, Christian Färber¹, Clemens Bruhn¹, Michael Leibold¹, Detlef Selent², Wolfgang Baumann², Moritz von Hopffgarten³, Catharina Goedecke³, Gernot Frenking³
¹Institute of Chemistry, University of Kassel, Kassel, Germany, ²Leibniz Institute of Catalysis e.V., Rostock, Germany, ³Department of Chemistry, University of Marburg, Marburg, Germany

Parallel 2 Session 4: Bioinorganic & Metalloenzymes

15:40 - 16:20 University Place, Theatre A

Chair: Prof David Collison

BM_O09 15:40 Multifunctional in cellulose probes for DNA
Jim Thomas
 University of Sheffield, Sheffield, UK

BM_O10 16:00 Ruthenium-Porphyrin Compounds in Photodynamic Therapy
Bruno Therrien
 University of Neuchâtel, Neuchâtel, Switzerland

Parallel 3 Session 4: Main Group

15:40 - 16:20 Crawford House, Theatre 1

Chair: Prof Paul O'Brien

MG_O09 15:40 Tuning Organic and Inorganic Moieties of Photochromic Viologen Chlorometallates
Nicolas Mercier¹, Nicolas Leblanc¹, Claude Pasquier², Pascale Auban-Senzier²
¹University of Angers, Angers, France, ²University of Paris sud, Orsay, France

MG_O10 The peculiar case of tetra-coordinated square planar Zn(II)
16:00 *Eduardo C. Escudero-Adán, Jordi Benet-Buchholz, Arjan W. Kleij*
Institute of Chemical Research of Catalonia (ICIQ), Tarragona, Spain

Plenary: Martin Janssen

16:20 - 17:00 University Place, Theatre B Chair: Prof Claudia Wickleder

Plen06 New Oxometallates Exhibiting Low Dimensional Charge, Spin and Orbital

16:20 Ordering

PLENARY Martin Jansen

Max Planck Institute for Solid State Research, Stuttgart, Germany

Poster session

17:00 - 18:30 University Place, Exhibition Area

Conference Banquet

19:30 – 23:00 **Manchester Town Hall**

Thursday 14 April 2011

Plenary: Reshef Tenne

09:00 - 09:40 University Place, Theatre B Chair: Professor Richard Winpenny

Plen07 Inorganic nanotubes and fullerene-like nanoparticles: fundamentals and applications

PLENARY Reshef Tenne
Weizmann Institute, Rehovot, Israel

Parallel 1 Session 5: Supramolecular & Coordination Chemistry

09:40 - 10:30 University Place, Theatre B Chair: Dr Richard Layfield

SC_O17 Metallacrown's and Metallacryptate's Chemistry: Structural, Magnetic and Biological Aspects

09:40 KEYNOTE Dimitris Kessissoglou
Aristotle University of Thessaloniki, Thessaloniki, Greece

SC_O18 Responsive "clickates" for chemo- and biosensing *in vitro* and *in vivo*.

10:10 Michael Watkinson¹, Emiliano Tamarini¹, Kajally Jobe¹, Majid Motevalli¹,
Stephen Rigby¹, Stephen Goldup¹, Matthew Todd²
¹Queen Mary, University of London, London, UK, ²The University of Sydney, New South Wales, Australia

Parallel 2 Session 5: Reaction Mechanisms

09:40 - 10:30 University Place, Theatre A Chair: Prof Robin Perutz

RM_O01 Electrocatalytic Cycling of Hydrogen and Carbon dioxide: The Importance of Understanding How Enzymes Work so Well

09:40 KEYNOTE Fraser Armstrong
University of Oxford, Oxford, UK

RM_O02 Acid-base interaction between transition metal hydrides: dihydrogen bonding and H₂ evolution

10:10 Natalia Belkova¹, Vladislava Levina¹, Andrea Rossin², Roberto Gobetto³,
Agustí Lledós⁴, Maurizio Peruzzini², Elena Shubina¹
¹A.N. Nesmeyanov Institute of Organoelement Compounds, RAS, Moscow, Russian Federation, ²Istituto di Chimica dei Composti Organometallici, CNR, Florence, Italy, ³Dipartimento di Chimica I.F.M., Università di Torino, Torino, Italy, ⁴Departamento de Química UAB, Barcelona, Spain

Parallel 3 Session 5: Inorganic Materials

09:40 - 10:30 Crawford House, Theatre 1 Chair: Prof Eric McInnes

IM_O01 Light and Water Games With Porous Metal Silicates and Metal-Organic Frameworks

09:40 KEYNOTE João Rocha
University of Aveiro, CICECO, DEpartment of Chemistry, Aveiro, Portugal

IM_O02 Multifunctional Materials from Iron/Dipyrazolylpyridine Spin-Crossover Switches

10:10 Malcolm Halcrow¹
¹University of Leeds, UK

Coffee

10:30 - 11:00

Parallel 1 Session 5: Supramolecular & Coordination Chemistry

11:00 - 12:20 University Place, Theatre B Chair: Dr Richard Layfield

- SC_O19
11:00 Complexes bearing bridging phosphane ligands, from a new coordination mode to supramolecular π -stacked assemblies.
Christophe Lescop¹, Shen Wenting¹, Nohra Brigitte¹, Yao Yishan¹, Ago Tomohiro¹, Sebastian Manuel¹, Leclère Philippe², Réau Régis¹
¹Science Chimique de Rennes - UMR 6226 CNRS-Université de Rennes 1, Rennes, France, ²Service de Chimie des Matériaux Nouveaux Université de Mons, Mons, Belgium
- SC_O20
11:20 Synthetic Receptors using Metal Complexes for Selective Molecular Recognition and Catalysis
Burkhard Koenig, Benjamin Gruber, Tatjana Mitkina
Universität Regensburg, Regensburg, Germany
- SC_O21
11:40 New Reactivity with Cooperative and Adaptive Phosphorus Ligands
Jarl Ivar van der Vlugt
University of Amsterdam, Amsterdam, Netherlands
- SC_O22
12:00 Selective functionalisation of tetraazamacrocyclic ligands: from the development of chemosensors for endogeneous metallic cations towards new lanthanide coordination complexes for biological imaging
Cyril Cadiou, Arnaud De La Reberdière, Abir El Majzoub, Isabelle Dechamps-Olivier, Gilles Lemerrier, Françoise Chuburu
Institut de Chimie Moléculaire de Reims CNRS UMR 6229 - University Of Reims, Reims, France

Parallel 2 Session 5: Reaction Mechanisms

11:00 - 12:20 University Place, Theatre A Chair: Prof Robin Perutz

- RM_O03
11:00 Oxidations catalyzed by $\text{Cp}^*_2\text{M}_2\text{O}_5$ (M = Mo, W): new results and mechanistic studies.
Pelin Sözen², Eric Manoury¹, Jean-Claude Daran¹, Funda Demirhan², Rinaldo Poli^{1,3}
¹CNRS, de Chimie de Coordination, 205 Route de Narbonne, 31077 Toulouse, France, ²Celal Bayar University, Faculty of Sciences & Liberal Arts, Department of Chemistry, 45030 Muradiye-Manisa, Turkey, ³Institut Universitaire de France, 103, bd Saint-Michel, 75005 Paris, France
- RM_O04
11:20 Unknown aspects of the chemistry of dihydrogen complexes: effect of ion pairing to BF_4^- on the rotation of coordinated H_2 .
Andrés G. Algarra^{1,3}, María J. Fernández-Trujillo¹, Agustí Lledós², Manuel G. Basallote¹
¹Departamento de Ciencia de los Materiales e Ingeniería Metalúrgica y Química Inorgánica, Facultad de Ciencias, Universidad de Cádiz, Puerto Real, 11510 Cádiz, Spain, ²Departament de Química, Edifici Cn, Universitat Autònoma de Barcelona, Bellaterra 08193, Barcelona, Spain, ³School of EPS - Chemistry, Heriot-Watt University, Edinburgh EH14 4AS, UK
- RM_O05
11:40 Rhenium Complexes as a Substitute for Precious Metals in Effective Homogeneous Hydrogenations of Olefins
Heinz Berke, Balz Dudle, Yanfeng Jiang, Rajesh Kunjanpillai, Olivier Blacque
University of Zurich, Institute of Inorganic Chemistry, 8057 Zurich, Switzerland

RM_O06 12:00 Taking apart a complex metalloprotein: electrochemical and spectroscopic studies of hydrogen and NAD⁺/NADH cycling by immobilized enzyme moieties
Zulkifli Idris¹, Juan Liu¹, Lars Lauterbach², Oliver Lenz², Ingo Zebger³, Marius Horch³, Kylie Vincent¹
¹University of Oxford, Oxford, UK, ²Humboldt University of Berlin, Berlin, Germany, ³Technische Universität Berlin, Berlin, Germany

Parallell 3 Session 5: Inorganic Materials

11:00 - 12:20 Crawford House, Theatre 1 Chair: Prof Eric McInnes

IM_O03 11:00 Rational Design of Magnetic Materials Based on "Single-Molecule Magnet" Building-Blocks
Rodolphe Clérac¹
¹CNRS, UPR 8641, Centre de Recherche Paul Pascal (CRPP), Equipe "Matériaux Moléculaires Magnétiques", Pessac, France, ²Université de Bordeaux, UPR 8641, Pessac, France

IM_O08 11:20 Soluble Metal-Oxide Chemistry: Noble Metal Based Polyoxometalates
Natalya Izarova, Maria Barsukova, Ulrich Kortz
Jacobs University, Bremen, Germany

IM_O05 11:40 Tuning the transition temperatures of mononuclear bapbpy-based spin-crossover compounds: interplay between molecular- and crystal-engineering
Sylvestre Bonnet¹, Zulema Arcís Castillo¹, Maxime A. Siegler², Olivier Roubeau³
¹Leiden University, Leiden, Netherlands, ²John Hopkins University, Baltimore, USA, ³Universidad de Zaragoza, Zaragoza, Spain

IM_O06 12:00 Engineering Magnetic Molecular Compounds: Design of Single Chains Magnets and Magnetic Metal Organic Framework : Design and Good Fortune
Yves Journaux
Institut Parisien de Chimie Moléculaire, UPMC, France

Lunch

12:20 - 13:50

Plenary: Pablo Espinet

13:50 - 14:30 University Place, Theatre B Chair: Prof Guy Lavigne

Plen08 13:50 Homogeneous Catalysis with Metals: Organic Synthesis as seen by an Inorganic Chemist
PLENARY Pablo Espinet
IU CINQUIMA/University of Valladolid, Valladolid, Spain

Parallel 1 Session 6: Organometallic & Catalysis

14:30 - 15:20 University Place, Theatre B Chair: Prof Richard Winpenny

OC_O15 14:30 The Role of Polynuclear Compounds in Uranium Redox Chemistry
Marinella Mazzanti
KEYNOTE *CEA-Grenoble, Grenoble, France*

OC_O16 15:00 Ligand effects on the catalytic activity of iron(II) complexes for the transfer hydrogenation of ketones
Paraskevi O. Lagaditis, Alexandre A. Mikhailine, Alan J. Lough, Robert H. Morris
University of Toronto, Toronto, Canada

Parallel 2 Session 6: Reaction Mechanisms

14:30 - 15:20 University Place, Theatre A Chair: Prof Norah Barba-Behrens

RM_O07 Enthalpy-Entropy Compensation in n-merization Processes

14:30 Claude Piquet

KEYNOTE *University of Geneva, CH-1211 Geneva 4, Switzerland*

RM_O08 Kinetics, CW and Pulsed EPR characterization of Cr^V saccharide complexes

15:00 Luis Federico Sala¹, J C Gonzalez¹, S Van Doorslaer², M F Mangiameli¹, S Garcia¹, M I Frascaroli¹

¹Universidad nacional de Rosario, Rosario, Argentina, ²University of Antwerp, Antwerp, Belgium

Parallell 3 Session 6: Inorganic Materials

14:30 - 15:20 Crawford House, Theatre 1 Chair: Dr Richard Douthwaite

IM_O07 Fullerene superconductivity 20 years on - alive and kicking

14:30 Kosmas Prassides

KEYNOTE *Durham University, Durham, UK*

IM_O04 In search for M^{II}/Ln^{III} clusters and single-molecules magnets (M = Co, Ni, Cu; Ln = lanthanide)

Constantinos G Efthymiou¹, Anastasia Georgopoulou³, Constantina Papatriantafyllopoulou¹, Despoina Dermizaki¹, Christina D Polyzou¹, Anastasios J Tasiopoulos⁴, Catherine P Raptopoulou³, Aris Terzis³, Luis Cunha-Silva⁵, Wolfgang Wernsdorfer⁶, Theocharis C Stamatatos¹, Albert Escuer⁷, George Christou², Spyros P Perlepes¹

¹University of Patras, Patras, Greece, ²University of Florida, Gainesville,

USA, ³Institute of Materials Science, Aghia Paraskevi Attikis, Greece,

⁴University of Cyprus, Nicosia, Cyprus, ⁵University of Porto, Porto, Portugal,

⁶Institut Louis Neel, CNRS & Universite J Fourier, Grenoble, France,

⁷Universitat de Barcelona, Barcelona, Spain

Coffee

15:20 - 15:50

Parallel 1 Session 6: Organometallic & Catalysis

15:50 - 16:30 University Place, Theatre B Chair: Prof Richard Winpenny

OC_O17 F-Block Carbenes with Latent M=C Double Bonds: Structure-Bonding

15:50 Insights, Diverse Reactivity and Magnetism

David Mills¹, Oliver Cooper¹, Ashley Wooles¹, Lyndsay Soutar¹, Jonathan McMaster¹, Fabrizio Moro¹, Joris van Slageren², Stephen Liddle¹

¹University of Nottingham, Nottingham, UK, ²University of Stuttgart, Stuttgart, Germany

OC_O18 Understanding the role of paramagnetic organometallic redox centres in oligomerisation catalysis by CW and Pulsed EPR & ENDOR spectroscopy

16:10 Kingsely Cavell, Emma Carter, Tracy Hamilton, Lucia McDyre, Damien

Murphy, Katherine Sampford, Ben Ward

Cardiff University, Cardiff, UK

Parallel 2 Session 6: Reaction Mechanisms

15:50 - 16:30 University Place, Theatre A Chair: Prof Norah Barba-Behrens

RM_O09 CONCERTED PROTON-ELECTRON TRANSFER (CPET) TO DIOXYGEN IN WATER

15:50 Ophir Snir¹, Yifeng Wang¹, Yurii Geleti², Mark Tuckerman³, Ira Weinstock¹

¹Ben Gurion University, Beer Sheva, Israel, ²Emory University, Atlanta, GA, USA, ³New York University, New York, NY, USA

RM_O10
16:10 Controlling the stability of a Mn(IV)-O[•] radical species holds the key to viable catalytic water oxidation.

John McGrady¹, WMC Sameera²

¹University of Oxford, Oxford, UK, ²ICIQ, Tarragona, Spain

Parallell 3 Session 6: Inorganic Materials

15:50 - 16:30 Crawford House, Theatre 1 Chair: Dr Richard Douthwaite

IM_O09
15:50 Metal phosphide nanoparticles as attractive inorganic materials
Sophie Carencu^{1,2}, Matthieu Demange¹, Xavier Le Goff¹, Cédric Boissière²,
Pascal Le Floch¹, Clément Sanchez², Nicolas Mézailles¹

¹Laboratoire Hétéroéléments et Coordination, Ecole Polytechnique,
Palaiseau, France, ²Laboratoire de Chimie de la Matière Condensée de
Paris, Collège de France, Paris, France

IM_O10
16:10 Redox-Active Mono- and Multi-Layer Assemblies with Sense and Memory: A
Matter of Logic

Graham de Ruiter, Milko van der Boom

Weizmann Institute of Science, Rehovot, Israel

Closing Remarks

16:30 - 17:00