

# ISACS13: Challenges in Inorganic and Materials Chemistry

1-4 July 2014, Dublin, Ireland

## Programme

**Tuesday 1<sup>st</sup> July 2014**

**5<sup>th</sup> CSJ RSC Symposium on Supramolecular Chemistry**

**Chartered Accountants House, Dublin**

**13.30 – 17.30**

Chartered Accountants House, Dublin

16:00	<b>Registration</b>
17.30	<b>Welcome Reception</b>
19.00	<b>Close</b>

**Wednesday 2<sup>nd</sup> July**

Chartered Accountants House, Dublin

<b>Session 1 : Porous and Solid State Materials (Chair – Stuart James)</b>	
08.45	<b>Opening Remarks</b>
09.00	<b>PLENARY: Evolution of Functionality of Porous Coordination Polymers/Metal-Organic Frameworks</b> Professor Susumu Kitagawa <i>Kyoto University, Japan</i>
09:45	<b>CONTRIBUTING: Small Molecule Activation in Redox-Active Metal-Organic Frameworks</b> Professor Mircea Dincă <i>MIT (Massachusetts Institute of Technology), USA</i>
10.10	<b>PLENARY: Protolife-inspired Materials Chemistry</b> Professor Stephen Mann <i>University of Bristol, UK</i>
10:55	<b>COFFEE</b>
11:25	<b>PLENARY: Identification of New Functional Materials – Integration of Experiment and Computation?</b> Professor Matt Rosseinsky <i>University of Liverpool, UK</i>
12.10	<b>CONTRIBUTING: Electro-active metal organic frameworks</b> Dr Davide Tiana <i>University of Bath, UK</i>
12.35	<b>LUNCH</b>
<b>Session 2: Metals in Biology (Chair – Thorri Gunnlaugsson)</b>	
13:35	<b>PLENARY: EuroTracker Dyes: a New Generation of Very Bright Optical Probes</b> Professor David Parker <i>Durham University, UK</i>
14.20	<b>CONTRIBUTING: Transient spectroscopic studies of enantiomerically-resolved intercalating ruthenium dipyrrophenazine (dppz) complexes bound to defined sequence DNA</b> Professor John Kelly

	<i>Trinity College Dublin, Ireland</i>
14.45	<b>PLENARY: Biological Studies of New Dirhodium(II,II) Paddlewheel and Ru(II) Organometallic Complexes in Cancer Cells</b> Professor Kim Dunbar <i>Texas A&amp;M University, USA</i>
15.30	<b>COFFEE</b>
16.00	<b>PLENARY: Highly stable functionalisable platform chelating ligands for radiometal ions in vivo</b> Professor Chris Orvig <i>University of British Columbia, Canada</i>
16.45	<b>CONTRIBUTING: Nucleophilic Reactivity of a Copper(II)-Superoxide Complex</b> Dr Aidan McDonald <i>Trinity College Dublin, Ireland</i>
17.10	<b>Posters (Even Numbers) this also includes a Membership Reception (all welcome)</b>
19.00	<b>Close</b>

### Thursday 3<sup>rd</sup> July

Chartered Accountants House, Dublin

<b>Session 3: Main Group (Chair – Martin Albrecht)</b>	
09.00	<b>PLENARY: Metal-Ligand Cooperative behaviour in Aluminium(III) Complexes Mediates Redox Chemistry and Dehydrogenation Catalysis</b> Including presentation of ChemComm Emerging Investigator Lectureship Professor Louise Berben <i>University of California, Davis, USA</i>
09:50	<b>CONTRIBUTING: The magic of polypnictogen compounds</b> Professor Manfred Scheer <i>University of Regensburg, Germany</i>
10.15	<b>PLENARY: From Frustrated Lewis Pairs to Phosphorus-Based Lewis Acids</b> Professor Doug Stephan <i>University of Toronto, Canada</i>
11.00	<b>COFFEE</b>
11.30	<b>PLENARY: Stable carbenes and related species: Powerful tools in inorganic chemistry</b> Professor Guy Bertrand <i>University of California, San Diego, USA</i>
12.15	<b>CONTRIBUTING: From Grignards to Magnesium Batteries</b> Dr John Muldoon <i>Toyota Research Institute of North America, USA</i>
12.40	<b>CONTRIBUTING: Ordering Phenomena in Spin Crossover Solids</b> Dr Grace Morgan <i>University College Dublin, Ireland</i>
13.05	<b>LUNCH</b>
<b>Session 4: Organometallic Chemistry and Catalysis (Chair – Richard Layfield)</b>	
14.05	<b>PLENARY: How Dinitrogen Activation Studies Led to New Rare Earth and Uranium Oxidation States in Molecular Organometallic Complexes</b> Professor William Evans <i>University of California, Irvine, USA</i>

14.50	<b>CONTRIBUTING: Catalyst-Structure: Catalysis-Performance Relationships in Regioselective (and Highly Enantioselective) Alkene Carbonylations</b> Professor Matthew Clarke <i>University of St Andrews, UK</i>
15.15	<b>PLENARY: The Mechanism-Led Design of Catalysts for the Dehydrocoupling of Amine and Phosphine Boranes</b> Professor Andy Weller <i>University of Oxford, UK</i>
16.00	<b>COFFEE</b>
16.30	<b>PLENARY: Open-Shell Organometallics of Iron and Cobalt: Synthesis and Reactions of Coordinatively Unsaturated Iron/Cobalt Hydrocarbyls with NHC Ligation</b> Professor Liang Deng <i>Shanghai Institute of Organic Chemistry, China</i>
17.15	<b>CONTRIBUTING: Intermediates in Homogeneous Iron-Catalysed Water Oxidation</b> Dr Julio Lloret Fillol <i>Universitat de Girona, Spain</i>
17.40	<b>Posters (Odd Numbers)</b>
19.00	Close
19.30	<b>Pre-Dinner Drinks &amp; Conference Dinner</b> <b>Royal College of Physicians of Ireland, Kildare Street, Dublin</b>

#### Friday 4<sup>th</sup> July 2014

Chartered Accountants House, Dublin

<b>Session 5: Supramolecular Materials (Chair – Neil Robertson)</b>	
09.00	<b>PLENARY: Phosphorescent Metal Complexes with Long-Lived Electronic Excited States. Photophysics, Photocatalysis, and Material Applications</b> Professor Chi-Ming Che <i>University of Hong Kong, Hong Kong</i>
09:45	<b>CONTRIBUTING: Robust isostructural cationic nanoporous frameworks with variable anion loading</b> Professor Sally Brooker <i>University of Otago, New Zealand</i>
10:10	<b>PLENARY: Crystal Engineering of Porous Metal-Organic Materials</b> Professor Mike Zaworotko <i>University of Limerick, Ireland</i>
10:55	<b>COFFEE</b>
11.25	<b>PLENARY: Dynamic and hybrid inorganic materials. Properties and applications</b> Professor Luisa De Cola <i>University of Strasbourg, France</i>
12.10	<b>CONTRIBUTING: Charge-Modulated Growth of Hybrid Conjugated Polyelectrolyte-Polyoxometalate Supramolecular Networks</b> Dr Rachel Evans <i>Trinity College Dublin, Dublin</i>
12.35	<b>Presentation of Chemistry World Poster Prize</b>
12.40	<b>Closing Remarks</b>
12.45	<b>Lunch</b>