**Tuesday 3rd April**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>1330-1345</td>
<td>Welcome and Introduction: <strong>Emma Raven</strong></td>
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<tr>
<td>1345-1430</td>
<td>Inorganic Mechanisms Award 2017</td>
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<tr>
<td></td>
<td><strong>Robert Morris (University of Toronto)</strong> Mechanisms of the H₂- and transfer hydrogenation of polar bonds catalyzed by iron group hydrides</td>
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<tr>
<td>1430-1515</td>
<td>Coordination and Organometallic Discussion Group Plenary Lecture, Session Chair: <strong>Jason Love</strong> (Edinburgh)</td>
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<td></td>
<td><strong>Connie Lu (University of Minnesota)</strong> Innovating bimetallic active sites for small-molecule catalysis</td>
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<tr>
<td>1515-1540</td>
<td>Tea/Coffee</td>
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Parallel Session 1

<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Chair</th>
<th>Coordination &amp; Organometallic and Dalton Trans Editorial Board</th>
<th>Coordination &amp; Organometallic</th>
<th>Main Group</th>
<th>Reaction Mechanisms</th>
<th>Inorganic Biochemistry</th>
<th>Coordination &amp; Organometallic</th>
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</thead>
<tbody>
<tr>
<td>15:40-16:00</td>
<td>OC1.03 (500)</td>
<td>Graeme Hogarth</td>
<td>John Arnold UC Berkeley New Catalytic &amp; Stoichiometric Reactivity Promoted by Early Transition Metals</td>
<td>James Hickson Imperial College London Synthesis and characterisation of rare earth-transition metal heterometallic complexes with a redox-active bridging ligand</td>
<td>Nicola Oldroyd University of Bristol General, metal-free routes to polyphosphinoboranes</td>
<td>Samuel de Visser University of Manchester A novel mechanism for aldehyde deformation by a side-on manganese(III)-peroxo complex</td>
<td>Pablo Carames-Mendez University of Leeds Breaking the rules, transdiolate ruthenium complexes as anticancer agents</td>
<td>Megan Seymour Imperial College London Uranium-mediated small molecule activation</td>
</tr>
<tr>
<td>16:00-16:20</td>
<td>OC0.03 (250)</td>
<td>Patrick McGowan</td>
<td>Marina Uzelac University of Strathclyde New C-C bond forming strategies mediated by alkali metal manganates</td>
<td>Kay Burrows University of Leeds The influence of chirality on the spin states on Fe(II) pybox derivatives</td>
<td>Rachel Kahan University of Manchester Novel routes to B-doped polyyclic aromatic hydrocarbons</td>
<td>Anders Hammersback University of York Understanding the mechanism of Mn-catalysed C-H Bond functionalisation using time-resolved IR spectroscopy (TRIR)</td>
<td>Rianne Lord University of Bradford Organometallic iridium complexes: highly cytotoxic and selective towards colorectal cancer</td>
<td>Samantha Apps Imperial College London Dinitrogen activation of molybdenum(II) N-triphos complexes</td>
</tr>
<tr>
<td>16:20-16:40</td>
<td>OC0.02 (100)</td>
<td>Michael Cowley</td>
<td>Guo-Xin Jin Fudan University Organometallic macrocycles, cages and their application</td>
<td>Andreas Berkefeld Eberhard Karls Universität Tübingen Structure-property relationship of radical-ligand complex near-infrared chromophores of platinum</td>
<td>Merle Arrowsmith Julius-Maximilians-Universität Würzburg From borylene to diborene and back again: towards a bora-Wannick equilibrium?</td>
<td>Antonio Martinez-Martínez University of Oxford Valorisation of light hydrocarbons: solid-state molecular organometallic catalytic nanoreactors (SMOM-cat)</td>
<td>Samya Banerjee University of Warwick Activation of C=C rings on rhodium(III) anticancer complexes</td>
<td>Robin Perutz University of York Self-complementary nickel halides enable intermolecular halogen bonds</td>
</tr>
<tr>
<td>16:40-17:00</td>
<td>OC0.04 (80)</td>
<td>Alison Parkin</td>
<td>Richard Knighton University of Warwick Solution, solid-state, and computational analysis of agostic interactions in a coherent set of low coordinate Rh(III) and Ir(III) complexes</td>
<td>Rebekah Hailes University of Bristol Synthesis and magnetic properties of polynickelocenes with different main chain spacers</td>
<td>Nicholas Phillips Imperial College London Bespoke dihydridoborane reagents: tuning the environment at boron through hemi­labile ligation</td>
<td>Nathan Coles University of Bath Iron catalysed transfer hydrogenation and regioselective deuteration reactions</td>
<td>Isolda Romero-Canelon University of Birmingham Chemical modulation of cellular redox balance for cancer treatment</td>
<td>Sophie Benjamin Nottingham Trent University Pd(II) complexes of Lewis amphoteric halostibines: stoichiometry matters</td>
</tr>
<tr>
<td>17:00-17:20</td>
<td>OC1.06 (60)</td>
<td>Claudia Blindauer</td>
<td>Thomas Rookes University of Manchester Novel heavy pnictide complexes of U and Th</td>
<td>Sabrina Khoo Nanyang Technological University, Singapore B-H bond activation by an amido-stabilized amidosilylene: non-innocent amido­ligand</td>
<td>Rory Waterman University of Vermont Polymerization of arsine boranes and pyrolysis to boron arsane</td>
<td>Martin Willis University of Warwick Synthesis and catalytic applications of cyclopentadienyl iron tricarbonyl complexes</td>
<td>Gabriele Agonigi University of Pisa Reactivity of dinor complexes with a bridging amino-alkylidyne ligand, and cytotoxicity results</td>
<td>Samantha Lau Imperial College London Tuneable binding of dinitrogen to a series of M4Ru (M = Mg, Al, Zn) heterobimetallic complexes</td>
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<tr>
<td>17:20-17:40</td>
<td>OC0.01 (60)</td>
<td>Joy Farnaby</td>
<td>Matthew Leech University of Sussex Escaping obscurity: transition metal cyaphides</td>
<td>Nikos Kaltsoyannis University of Manchester Very high spin ground states in Matyoshka actinide nanoclusters</td>
<td>Yashar Soltani Cardiff University Stoichiometric and catalytic C-C and C-U bond formation with (BC6F13) via cationic intermediates</td>
<td>Zoë Turner University of Oxford Evidence for a new mechanism of ethylene polymerisation</td>
<td>Graeme Stasiuk University of Hull Synthesis and validation of a multimodal PET/fluorescence Zn sensing probes as potential imaging agents for prostate cancer</td>
<td>Bradley Cowie University of Edinburgh Reduction, fission and oxo-group abstraction reactions of the uranyl ion</td>
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1830-1930 Dinner – Roots Restaurant
1930-2200 Posters and Wine/Beer/Soft Drinks
Wednesday 4th April

Lecture Theatre

Session Chair: Nick Le Brun (UEA)

0900-0945  Inorganic Biochemistry Discussion Group Plenary Lecture
            Kara Bren (University of Rochester)  A metallopeptide mimic of hydrogenase and nitrite reductase

0945-1030  Main Group Chemistry Plenary Lecture
            Evamarie Hey-Hawkins (University of Leipzig)  Phosphorus meets carborane

1030-1055  Tea/Coffee
**Parallel Session 2**

<table>
<thead>
<tr>
<th>Room</th>
<th>Chair</th>
<th>Coordination &amp; Organometallic and Dalton Trans Editorial Board</th>
<th>Reaction Mechanisms</th>
<th>Main Group</th>
<th>Inorganic Biochemistry</th>
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<tr>
<td>OC1.05 (500)</td>
<td>David Mills</td>
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<td>OC0.03 (250)</td>
<td>OC0.02 (100)</td>
<td>OC0.04 (80)</td>
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<tr>
<td>1055-1115</td>
<td>Masahiro Yamashita</td>
<td>Tohoku University Quantum molecular spintronics based on single-molecule magnets: single-molecule memory, spin qubits, and Rabi nutation at RT</td>
<td>Paul Hayes University of Lethbridge</td>
<td>Claire Bakewell Imperial College London</td>
<td>Alevtina Mikhaylina University of Warwick</td>
<td>Richard Procter University of Manchester</td>
</tr>
<tr>
<td>1115-1155</td>
<td>Laurence Kershaw Cook</td>
<td>University of Bath Insights into crystal design – polymorphism and phase dependent spin-state switching</td>
<td>James Walton Durham University</td>
<td>Rosalyn Falconer University of Edinburgh</td>
<td>Oliver Daubney University of Birmingham</td>
<td>Andrew Wilson University of Bath</td>
</tr>
<tr>
<td>1135-1155</td>
<td>Marinella Mazzanti</td>
<td>École Polytechnique Fédérale Lausanne Small molecule activation by multimetallic uranium complexes</td>
<td>Lewis Hall University of York</td>
<td>Lucy Brown Queen's University Belfast</td>
<td>Amanda Jarvis University of Edinburgh</td>
<td>Felipe Garcia Nanyang Technological University</td>
</tr>
<tr>
<td>1155-1215</td>
<td>William Blackaby</td>
<td>University of Bath Synthesis and characterisation of low-coordinate Ni(I) complexes for magnetic applications and small molecule activation</td>
<td>Bryan Ward Imperial College London</td>
<td>Petra Vasko University of Oxford</td>
<td>Agnieszka Mierzek-Adamaska University of Warwick</td>
<td>Ajay Venugopal Indian Institute of Science Education and Research</td>
</tr>
<tr>
<td>1215-1235</td>
<td>Wolfgang Tremel</td>
<td>Johannes Gutenberg Universit &quot; Mainz Applications of inorganic nanoparticle enzyme mimics</td>
<td>Mark Dowsett University of York</td>
<td>Ewan Clark University of Kent</td>
<td>Justin Bradley University of East Anglia</td>
<td>Alex Pajer University of Cambridge</td>
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**1235-1345 Lunch (Rootes Restaurant) and poster browsing**

Session Chair: **Jose Goicoechea** (Oxford)

**1345-1430** Bioinorganic Chemistry Award 2017

**Thomas Ward** (University of Basel) Artificial metalloenzymes: challenges and opportunities

**1430-1515** Michael Lappert Memorial Lecturer 2018

**François Gabbaï** (Texas A & M) Exploiting the non-innocence of antimony ligands in organometallic catalysis
1515-1545 Tea/Coffee

Parallel Session 3

<table>
<thead>
<tr>
<th>Room</th>
<th>Coordination &amp; Organometallic</th>
<th>Main Group and Dalton Trans Editorial Board</th>
<th>General Interest Mixer</th>
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<tr>
<td>Chair</td>
<td>John Fielden</td>
<td>Ian Crossley</td>
<td>Rebecca Melen</td>
<td>Ulrich Hintermair</td>
<td>Rianne Lord</td>
</tr>
</tbody>
</table>

1545-1605

- **Stephen Mansell**
  Heriot-Watt University
  Applying phosphinophosphinine ligands to catalysis

- **Stephen Richards**
  University of Southampton
  Molecular precursors for the growth of M2E3 (M = Sb, Bi; E = Se, Te) thin film thermoelectric materials by low pressure chemical vapour deposition

- **Alexander Hinz**
  University of Oxford
  Limitations of steric bulk: towards phospha-germynes and phospha-stannynes

1605-1625

- **Marcel Philip Lücke**
  Technische Universität Berlin
  Bis(silylenyl)-substituted ferrocene-stabilized η6-arene Fe(0) complexes: synthesis, structure and catalytic application

- **Frank Tambornino**
  University of Oxford
  A general synthetic approach towards heavier group 15/16 cyanate homologues $Pn=\text{C}=\text{O}$ (where $Pn$ = P, As; Ch = S, Se).

1625-1645

- **Pau Farràs**
  NUI Galway
  Strategies to improve stability and efficiency for solar chemicals production

- **Chantal Mustoe**
  University of British Columbia
  Charge transfer in halogen bonds

- **Warren Piers**
  University of Calgary
  Synthesis and reactivity of PC$_2$et$_2$N complexes of first row transition metals

1645-1705

- **Patrick McGowan**
  University of Leeds
  Cu-catalysed arylation using the "caesium effect"

- **Vadapali Chandrasekhar**
  Tata Institute of Fundamental Research Hyderabad
  Synthesis and reactivity of compounds containing $S=\text{N}$, $S=\text{P}$ or $P=\text{P}$ motifs

- **Mark Muldoon**
  Queen's University Belfast
  New mechanistic insights into Pt(III) catalysed oxidation of aikens

- **Sebastian Pike**
  University of Manchester
  Lanthanide SMMs: life beyond the venerable cyclopentadienyl ligand

1710-1755

**Homogeneous Catalysis Award 2017**

**Syuzanna Harutyunyan** (University of Groningen)
Lewis acids promoted copper catalyzed synthesis of functional molecules

1800-1900 Section Committee meetings

1900-1930 Pre-dinner drinks (The Slate)

1930-2300 Conference Banquet (The Slate)
Thursday 5\textsuperscript{th} April

OC1.05  Session Chair: Michael Hill (Bath)

0915-1000  Harrison Meldola Award 2017
Mark Crimmin (Imperial College London)  Carbon–hydrogen bond activation with intermetallic complexes

1000-1045  Centenary Prize 2017
Odile Eisenstein (University of Montpellier)  Analyzing reaction in transition metal species: is there an alternative to energy?

1045-1115  Tea/Coffee
## Parallel Session 4

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<tr>
<th>Room</th>
<th>OC1.05 (500)</th>
<th>OC0.03 (250)</th>
<th>OC0.02 (100)</th>
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<tr>
<td>Chair</td>
<td>Stephen Mansell</td>
<td>David Liptrot</td>
<td>Martin Wills</td>
<td>Michelle Ma</td>
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</tbody>
</table>

**1115-1135**
- **David Mills**
  University of Manchester
  Molecular magnetic hysteresis at 60 K in dysprosocenium
- **Martin Stanford**
  University of Edinburgh
  Disilene vs silylsilylene: substituted analogues of the SiH₄ rearrangement
- **Ulrich Hintermair**
  University of Bath
  Watching catalysts at work: H transfer reactions investigated with real-time high resolution FlowNMR spectroscopy
- **Charlotte Eling**
  University of Hull
  Dual-modal SERS/fluorescence AuNP probe for mitochondrial imaging

**1135-1155**
- **Ryan Kerr**
  University of Edinburgh
  Cerium-NHC complexes for the activation of CO₂ and polymerisation of biorenewable monomers
- **Joshua Sapsford**
  Imperial College London
  Beyond boranes: achieving moisture-tolerant Frustrated Lewis Pair catalysis with stannylum Lewis acids
- **Sascha Ott**
  Uppsala University
  Phosphaalkenes are key intermediates in the reductive cross-coupling of aldehydes to alkenes
- **Adam Smith**
  Imperial College London
  Lipophilic and cationic gallium-68 chelates for imaging mitochondrial function

**1155-1215**
- **Nils Metzler-Nolte**
  Ruhr-Universität Bochum
  Click chemistry for the synthesis of metal-peptide bioconjugates
- **Haoyu Niu**
  University of Oxford
  Coordination chemistry and reactivity of the heavier group 14 elements with bulky anionic guanidinato ligands
- **Luca Rocchigiani**
  University of East Anglia
  Au(III) hydrides: unexpected interplay of cis- and trans-influence on stability, insertion reactivity and NMR chemical shifts
- **Jim Thomas**
  University of Sheffield
  Targeting biomolecules with self-assembled photoactive Ru(II)-based metallomacrocycles

**OC1.05 Session Chair: Andrew Weller (Oxford)**

**1215-1300**
- **Inorganic Reaction Mechanisms Group Plenary Lecture**
  **Mahdi Abu-Omar** (UC Santa Barbara)
  Mechanistic Studies of Sustainable Catalysis

**1300-1305**
- **Concluding remarks: Emma Raven**