Monday, 29\textsuperscript{th} August 2011.

\textbf{Bute Hall}

08:30 – 09:00  
\textit{Opening ceremony}

09:00 – 10:00  
\textit{Plenary lecture: Prof C. Campbell (University of Washington)}  
\textit{Thermodynamics and kinetics of elementary reaction steps on late transition metal catalysis, and in their sintering}

10:00 – 10:30  
\textit{Coffee break}

\textbf{Session on Industrial Application – Kelvin Gallery.}

10:30 – 10:50  
IO1: Professor Zinfer Ismagilov, (Boreskov Institute of Catalysis)  
\textit{Selective catalytic oxidation of sulfur organic compounds of hydrocarbon fuels to sulfur dioxide over heterogeneous catalysts}

10:50 – 11:10  
IO2: Mr Colin Dupont, (UPMC, CNRS)  
\textit{Tetralin ring opening on supported molybdenum carbide catalysts}

11:10 – 11:30  
IO3: Dr. Alak Bhattacharyya, (UOP Honeywell)  
\textit{Catalytic desulfurization of hot gases from gasification units and refineries}

11:30 – 11:50  
IO4: Mr Oleg Klimov, (Boreskov Institute of Catalysis)  
\textit{Usage of bimetallic complexes for industrial preparation of the supported catalysts for deep hydrotreatment}

11:50 – 12:10  
IO5: Dr Dejin Kong, (SINOPEC)  
\textit{Synthesis of ZSM-5/silicalite-1 core-shell catalyst and its application in highly selective formation of para-xylene}

12:10 – 12:30  
IO6: Miss Teresa M. Portilla, (UPV-CSIC)  
\textit{A new zeolite with pore diameter between those of 10 and 12 \textit{mr} zeolites as an excellent catalyst for aromatic alkylation}

\textbf{Lunch break}

14:00 – 14:20  
IO7: Nuno Batalha (University of Poitiers)  
\textit{BEA zeolite germination over a support: improvement of the n-C16 hydroisomerisation performance}

14:20 – 14:40  
IO8: Mr Jeremy Francis (IFP Energies nouvelles)  
\textit{Beneficial effect of nickel addition on USY zeolite used in hydrocracking catalysts}

14:40 – 15:00  
IO9: Dr. Kai Chung Szeto (CNRS - CPE Lyon)  
\textit{Direct transformation from gas to liquid alkanes catalyzed by metal hydride supported on silica-alumina}

15:00 – 15:20  
IO10: Professor Hilde Venvik (Norwegian University of Science and Technology)  
\textit{Direct synthesis of dimethyl ether in microstructured reactors}

15:20 – 15:40  
IO11: Mr. Xian-Yang Quek (Eindhoven University of Technology)  
\textit{Unprecedented oxygenate selectivity in Fischer-Tropsch synthesis catalyzed by Ru nanoparticles}

\textbf{Tea break}

16:10 – 16:30  
IO12: Ms Patricia Benito (University of Bologna)  
\textit{Development of catalysts for the reforming of the producer gas: the greensyngas experience}

16:30 – 16:50  
IO13: Dr Fábio Noronha (Instituto Nacional de Tecnologia)  
\textit{The LaNiO\textsubscript{3} perovskite-type oxides for the production of hydrogen through steam reforming of ethanol. The effect of the preparation method}

16:50 – 17:10  
IO14:
Monday, 29th August 2011.

**Bute Hall**

08:30 – 09:00  Opening ceremony
09:00 – 10:00  Plenary lecture: Prof. C. Campbell (University of Washington) *Thermodynamics and kinetics of elementary reaction steps on late transition metal catalysis, and in their sintering*

10:00 – 10:30  Coffee break

**Session on Kinetics and Mechanism – Humanities Lecture Theatre**

10:30 – 10:50  KO1: Prof. Simon Podkolzin (Stevens Institute of Technology) *Studies of methane aromatization over molybdenum/ZSM-5 catalysts with operando molecular spectroscopy and DFT calculations*

10:50 – 11:10  KO2: Prof. Claude Mirodatos (IRCELYON-CNRS-Université Lyon) *Quantitative structure descriptor relationships (QSDR) in heterogeneous catalysis: combining formulation and microkinetic modeling in methane oxidative coupling catalyst optimization*

11:10 – 11:30  KO3: Dr. Raimund Horn, (Fritz Haber Institute) *Syngas formation by catalytic partial oxidation of methane on rhodium and platinum catalysts: a mechanistic study by spatial reactor profiles, in situ raman spectroscopy and microkinetic simulations*

11:30 – 11:50  KO4: Prof. Vladislav Sadykov (Boreskov Institute of Catalysis) *Mechanism of CH₄ dry reforming on nanocrystalline doped ceria-zirconia with supported Pt, Ru, Ni And Ni–Ru*

11:50 – 12:10  KO5: Professor Gianpiero Groppi (Politecnico di Milano) *Optimization of the thermal behavior of an adiabatic reformer for the catalytic partial oxidation of CH₄ at short contact time*

12:10 – 12:30  KO6: Davide Ferri (Empa, Swiss Federal Laboratories for Materials Science and Technology) *Activity improvement of La(Fe,Pd)Oₓ for CH₄ oxidation under periodic red-ox conditions*

12:30 – 14:00  Lunch break

14:00 – 14:20  KO7: Emiel Hensen (Eindhoven University of Technology) *Supported rhodium oxide nanoparticles as highly active CO oxidation catalyst*

14:20 – 14:40  KO8: Dr. Georges Sitja (Centre interdisciplinaire de Nanoscience de Marseille) *Size dependence of CO adsorption energy on regular arrays of palladium nanoparticles in the size range 5 to 1200 atoms*

14:40 – 15:00  KO9: Dr Wei Yang (Beijing University of Chemical Technology) *Evolution of the oxygen mobility in iron-based perovskite structures: correlation with mixed-oxide activity for low temperature CO oxidation*

15:00 – 15:40  K Keynote 1: Dr Chuck Peden (Pacific Northwest National Laboratory) *Excellent Activity and Selectivity of Cu-SSZ-13 in the Selective Catalytic Reduction of NOx with NH3*

15:40 – 16:10  Tea break

16:10 – 16:30  KO10: Dr Marco Conte (Cardiff University) *Au/C catalysts for the hydrochlorination of higher alkynes: a study of the reaction mechanism*

16:30 – 16:50  KO11: Bart Hereijgers (Utrecht University) *Gold catalyzed aerobic oxidation of cyclohexane: new mechanistic insight by thorough product analysis*

16:50 – 17:10  KO12: Marie Holz (Ruhr University – Bochum) *Conversion of CH₃OH over Au/ZnO and Au/TiO₂ under thermal and photocatalytic conditions.*
**Monday, 29th August 2011.**  

**Bute Hall**

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<tr>
<td>08:30 – 09:00</td>
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<td><em>Thermodynamics and kinetics of elementary reaction steps on late transition metal catalysis, and in their sintering</em></td>
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<td>10:00 – 10:30</td>
<td>Coffee break</td>
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**Session on Theory and Modelling – Senate Room**

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<th>Time</th>
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<tr>
<td>10:30 – 11:10</td>
<td>T Keynote 1: Prof. Dionisios Vlachos (University of Delaware)</td>
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<td><em>Design of Emergent-Behaving Catalytic Materials</em></td>
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<tr>
<td>11:10 – 11:30</td>
<td>TO1: Cuong Manh Nguyen (Ghent University)</td>
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<td><em>Ab initio study of the adsorption of C1-C4 alcohols in H-ZSM-5 zeolite</em></td>
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<td>11:30 – 11:50</td>
<td>TO2: Dr Petr Koci (Institute of Chemical Technology, Prague)</td>
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<td></td>
<td><em>Integrated multiscale methodology for virtual prototyping of porous catalysts</em></td>
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<td>11:50 – 12:10</td>
<td>TO3: Dr Mercedes Boronat (Instituto Tecnologia Quimica UPV-CSIC)</td>
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<td><em>Mechanistic differences between methanol and dimethyl ether carbonylation in side pockets and large channels of mordenite</em></td>
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<td>12:10 – 12:30</td>
<td>TO4: Pascal Raybaud (IFP Energies Nouvelles)</td>
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<td><em>DFT study of the hydrodeoxygenation mechanisms over MOS₂ and NiMOS active phases</em></td>
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<td>12:30 – 14:00</td>
<td>Lunch break</td>
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<tr>
<td>14:00 – 14:20</td>
<td>TO5: Dr Pieter Van Helden (Sasol Technology)</td>
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<td><em>Hydrogen on cobalt surfaces – a DFT and TPD study</em></td>
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<td>14:20 – 14:40</td>
<td>TO6: Pascal Raybaud (IFP Energies Nouvelles)</td>
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<td><em>H₂ induced reconstruction of supported Pt clusters: metal-support interaction versus surface hydride</em></td>
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<tr>
<td>14:40 – 15:00</td>
<td>TO7: Prof Jean-François Paul (UCCS - Univ. Lille)</td>
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<td><em>DFT study of the HDO reaction on sulphide catalyst</em></td>
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<tr>
<td>15:00 – 15:20</td>
<td>TO8: Andreas Heyden (University of South Carolina)</td>
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<td><em>Multiscale modeling of the water-gas shift reaction at the three phase boundary of Pt/TiO₂ catalysts</em></td>
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<td>15:20 – 15:40</td>
<td>TO9: Dr Françoise Delbecq (Ecole Normale Supérieure de Lyon)</td>
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<td><em>Mechanism of selective hydrogenation of crotonaldehyde on ceria supported platinum particles: a DFT study.</em></td>
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<td>15:40 – 16:10</td>
<td>Tea break</td>
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<tr>
<td>16:10 – 16:30</td>
<td>TO10: Prof Chris Hardacre (Queen’s University, Belfast)</td>
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<td><em>Correction for reversible adsorption over the &quot;inert&quot; material</em></td>
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<td>16:30 – 16:50</td>
<td>TO11: Adriana Trinchero (Chalmers University of Technology)</td>
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<td><em>A DFT-based kinetic model for methane oxidation over Pd</em></td>
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<tr>
<td>16:50 – 17:10</td>
<td>TO12: Dr Mercedes Boronat (Instituto Tecnologia Quimica UPV-CSIC)</td>
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<td><em>Oxidation active sites on gold nanoparticles</em></td>
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Bute Hall

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09:00 – 10:00 Plenary lecture: Prof. C. Campbell (University of Washington)
Thermodynamics and kinetics of elementary reaction steps on late transition metal catalysis, and in their sintering
10:00 – 10:30 Coffee break

Session on Catalyst Preparation – James Watt South Lecture Theatre

10:30 – 10:50 PO1: Dr Christian Schulze Isfort (Evonik Degussa GmbH)
Thermal and hydrothermal stability of flame synthesized silica-titania mixed oxides
10:50 – 11:10 PO2: Dr Wolfgang Kleist (Karlsruhe Institute of Technology)
Design, characterization and applications of catalysts based on metal-organic frameworks
11:10 – 11:30 PO3: Dr Olga Zalomaeva (Boreskov Institute of Catalysis)
Cyclic carbonate synthesis from epoxides and CO$_2$ over metal organic framework Cr-mil-101
11:30 – 12:10 Keynote 1: Dr Shin Mukai (Hokkaido University)
Synthesis Of A Tubular Radial Flow Module Equipped With A Hierarchical Pore System
12:10 – 12:30 PO4: Prof Christopher Jones (Georgia Institute of Technology)
Silica-supported poly(styrene sulfonic acid) brush materials and their application in ethyl lactate hydrolysis
12:30 – 14:00 Lunch break
14:00 – 14:40 PO5: Prof Edman Tsang (University of Oxford)
Studies of nano catalysts for cleaner energy provision
14:40 – 15:00 PO6: Keita Taniya (Kobe University)
Selective hydrogenation of cinnamaldehyde over silica coated tin-platinum nanoparticle catalysts
15:00 – 15:20 PO7: Prof Weixin Huang (University of Science and Technology of China)
In-situ formation of catalytically active sites via the shape-controlled surface restructuring of oxide nanocrystals
15:20 – 15:40 PO8: Dr Sergei Vereshchagin (Institute of Chemistry and Chemical Technology SB RAS)
Ferric oxide based microspheres as catalyst for OCM process – a new approach to catalyst design
16:10 – 16:30 PO9: Eng. Susana Lopes Silva (ENS Lyon/IFPEN Lyon)
Polyoxometalates encapsulation at mesoporous materials: application in ultra low sulfur diesel production
16:30 – 16:50 PO10: Martin Høj (Technical University of Denmark)
CoMo/Al$_2$O$_3$ hydrotreating catalysts prepared by flame synthesis
Monday, 29th August 2011.

**Bute Hall**

08:30 – 09:00 Opening ceremony

09:00 – 10:00 Plenary lecture: Prof. C. Campbell (University of Washington)

*Thermodynamics and kinetics of elementary reaction steps on late transition metal catalysis, and in their sintering*

10:00 – 10:30 Coffee break

**Session on Catalyst Characterisation – Bute Hall**

10:30 – 11:10 C Keynote 1: Prof. Bert Weckhuysen (Debye Institute for NanoMaterials Science)

*Closing The Operando Gap: The Application Of High Energy Photons For Studying Catalytic Solids At Work*

11:10 – 11:30 CO1: Karin Föttinger (TU Vienna)

*In situ x-ray and vibrational spectroscopic studies on Pd/ZnO and Pd/Ga$_2$O$_3$ methanol steam reforming catalysts*

11:30 – 11:50 CO2: Ms Diana Angarita Arias (Universitat Rovira i Virgili)

*Characterization of Mg-Al-hydrotalcites catalysts modified with phosphoric acid used for synthesis of dimethyl carbonate from methanol and carbon dioxide*

11:50 – 12:10 CO3: Christian Weilach (Vienna University of Technology)

*Formation and catalytic properties of PdZn/Pd(111) surface alloys*

12:10 – 12:30 CO4: Prof. Jose M. Lopez Nieto (Instituto Tecnologia Quimica)

*Oxidative dehydrogenation of ethane over NiO-CeO$_2$ mixed oxides catalysts. The promoter effect of cerium oxide*

12:30 – 14:00 Lunch break

14:00 – 14:20 CO5: Dr. Katrin F. Domke (FOM Institute AMOLF)

*Glycol etherification on H-beta zeolites followed in 3D with nonlinear spectromicroscopy*

14:20 – 14:40 CO6: Sylvia Reiche (Fritz-Haber-Institute)

*Acidified carbon catalysts for liquid phase reactions in biomass conversion chemistry*

14:40 – 15:00 CO7: Carsten Sievers (Georgia Institute of Technology)

*Stabilization of alumina supported catalysts for aqueous phase conversion of biomass*

15:00 – 15:20 CO8: Prof. Antonella Gervasini (Università degli Studi di Milano)

*Intrinsic and effective acidity of K$^+$, Ba$^{2+}$, and Nd$^{3+}$ added to Nb$_2$O$_5$ related to stability in biomass reactions*

15:20 – 15:40 CO9: Kiyotaka Nakajima (Materials and Structures Laboratory)

*HMF production from glucose aqueous solution over water-tolerant heterogeneous Lewis acid catalyst*

15:40 – 16:10 Tea break

16:10 – 16:30 CO10: Dr. Petr Sazama (J. Heyrovsky Institute of Physical Chemistry of the ASCR)

*Analysis of Si- and Al-related defect sites in micro- and micro-mesoporous high-silica zeolites. Effect on selectivity and durability in MTH*

16:30 – 16:50 CO11: Prof. Yasushige Kuroda (Okayama University)

*On the peculiar adsorption and activation behaviours of molecular hydrogen on copper-ion-exchanged MFI-type zeolite*

16:50 – 17:10 CO12: Miss Nidhi Gupta (The Energy and Resources Institute)

*Application of red mud for catalytic hydrocarbon cracking and characterisation of the nature of the resultant carbon deposits*
Tuesday, 30th August 2011.

**Bute Hall**

09:00 – 10:00
Plenary lecture: Prof Manfred Reetz (Max-Planck-Institut für Kohlenforschung, Mülheim)
*Tuning Monooxygenases by Genetic and Chemical Means*

10:00 – 10:30
Coffee break

**Session on Industrial Application – Kelvin Gallery**

10:30 – 11:10
I Keynote 1: Dr Joseph Kocal (UOP)
*Conversion of 2nd Generation Renewable Feedstocks to Fungible Liquid Transportation Fuels*

11:10 – 11:30
IO15: Prof. Aline Auroux (IRCELYON-CNRS)
*Development of catalysts for production of fatty nitriles at low temperature*

11:30 – 11:50
IO16: Dr Catia Cannilla (CNR-ITAE)
*Transesterification of vegetable oils on Mn-based catalysts for biodiesel production: correlation between surface and textural properties*

11:50 – 12:10
IO17: Hidetoshi Ohta (Catalysis Research Center, Hokkaido University)
*Aqueous-phase hydrodeoxygenation of phenols under acid-free conditions with bifunctional carbon-supported Pt catalysts*

12:10 – 12:30
IO18: Dr Juan Manuel Coronado (IMDEA Energy)
*Ni$_2$P/SBA-15: a new type of nonsulfide hydrotreating catalyst for green diesel production*

12:30 – 14:00
Lunch break

14:00 – 14:20
IO19: Chuan Wang (Institute of Chemical and Engineering Sciences)
*Mild condition hydrogenation of furfural on Pt/MWNT catalysts - stabilization of furfural in bio oil upgrading*

14:20 – 14:40
IO20: Dr Eleni Iliopoulou (CPERI/CERTH)
*Catalytic upgrading of biomass pyrolysis vapours using transition metal-modified ZSM-5 zeolite*

14:40 – 15:00
IO21: Prof Dmitry Murzin (Åbo Akademi University)
*Aqueous phase reforming of biomass feedstocks as an approach to hydrogen production*

15:00 – 15:20
IO22: Samuel Blass (Department of Chemical Engineering and Materials Science, University of Minnesota)
*Biomass upgrading in millisecond autothermal staged reactors*

15:20 – 15:40
IO23: Kameh Tajvidi (Max-Planck-Institut für Kohlenforschung)
*Efficient utilization of cellulose and wood via hydrolytic hydrogenation*

15:40 – 16:10
Tea break

16:10 – 16:30
IO24: Prof Ye Wang (Xiamen University)
*Polyoxometalate-supported Ru nanoparticles for conversions of cellobiose and cellulose into sorbitol in hydrogen in water*

16:30 – 16:50
IO25: Marcelo D Kaufman-Rechulski (Paul Scherrer Institut)
*Supported ruthenium catalyst for cleaning biomass producer gas at elevated temperatures*

16:50 – 17:10
IO26: Oihane Sanz (University of Basque Country)
*Metallic monoliths for nitrates reduction in water*
Tuesday, 30th August 2011.

**Bute Hall**

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**Session on Kinetics and Mechanism – Humanities Lecture Theatre**

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<tr>
<td>10:30 – 10:50</td>
<td>KO13: Dr Alexey Fedotov (A.V. Topchiev Institute of Petrochemical Synthesis) &lt;br /&gt;Mechanistic aspects of high-rate biofermentation products conversion into hydrogen containing gas using porous membrane-catalytic systems</td>
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<td>10:50 – 11:10</td>
<td>KO14: Oliver Korup (Fritz Haber Institute of the Max Planck Society) &lt;br /&gt;Autothermal catalytic partial oxidation (CPO) of methane on platinum investigated by high resolution spatial reactor profiles</td>
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<td>11:10 – 11:30</td>
<td>KO15: Mrs Ewelina Leino (Abo Akademi University) &lt;br /&gt;Kinetics of the synthesis of diethyl carbonate starting from CO$_2$ and ethanol over heterogeneous catalysts</td>
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<td>11:30 – 11:50</td>
<td>KO16: Dr Ursula Bentrup (Leibniz-Institute for Catalysis at the University of Rostock) &lt;br /&gt;Mechanistic investigations of the oxidative carbonylation of methanol to dimethyl carbonate over CuY zeolite: an operando drifts/uv-vis-drs/ms study</td>
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<tr>
<td>11:50 – 12:10</td>
<td>KO17: Dr Olga Ovsitser (Leibniz-Institute for Catalysis at the University of Rostock) &lt;br /&gt;Selective dehydrogenation of propane and iso-butane over well-defined VO$_x$/SiO$_2$–TiO$_2$ catalysts</td>
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<td>12:10 – 12:30</td>
<td>KO18: De Chen (Norwegian University of Science and Technology) &lt;br /&gt;Selective C–H and C–C bond activation of propane on platinum nanoparticles with different sizes and shapes</td>
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<td>12:30 – 14:00</td>
<td>Lunch break</td>
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<tr>
<td>14:00 – 14:20</td>
<td>KO19: Prof Alfons Drochner (Technische Universität Darmstadt) &lt;br /&gt;Isotopic studies on Mo/V/W-mixed oxide catalysts during the selective oxidation of acrolein</td>
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<td>14:20 – 14:40</td>
<td>KO20: Dr Sonia Carre (Université de Lille) &lt;br /&gt;Comparative kinetic and ir spectroscopic measurements on Rh-based ngy catalyst: toward an integrated approach</td>
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<td>14:40 – 15:00</td>
<td>KO21: Amol Amrute (ETH Zurich) &lt;br /&gt;Mechanism-performance relationships of metal oxides in catalyzed HCl oxidation</td>
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<tr>
<td>15:00 – 15:40</td>
<td>K Keynote 2: Prof Javier Pérez-Ramirez (ETH Zurich) &lt;br /&gt;Transient Mechanistic Studies In Heterogeneous Catalysis: Recent Success Stories</td>
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<td>15:40 – 16:10</td>
<td>Tea break</td>
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<tr>
<td>16:10 – 16:50</td>
<td>K Keynote 3: Dr Mathias Laurin (Friedrich-Alexander-Universität Erlangen-Nürnberg) &lt;br /&gt;Ionic Liquid Based Model Catalysts</td>
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<tr>
<td>16:50 – 17:10</td>
<td>KO22: Prof Jorg Libuda (University Erlangen-Nuremberg) &lt;br /&gt;Spillover processes at the microscopic level</td>
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**Bute Hall**

09:00 – 10:00  Plenary lecture: Prof Manfred Reetz (Max-Planck-Institut für Kohlenforschung, Mülheim)  
*Tuning Monoxygenases by Genetic and Chemical Means*

10:00 – 10:30  **Coffee break**

Session on Homogeneous Catalysis – Senate Room

10:30 – 11:10  H Keynote 1: Dr Mizuki Tada (University of Tokyo)  
*Design Of Molecularly Imprinted Metal-Complex Catalysts For Selective Catalysis*

11:10 – 11:30  HO1: Dr Evgeny Pidko (Eindhoven University of Technology)  
*Molecular aspects of ionic liquid-mediated glucose dehydroylation by metal chlorides*

11:30 – 11:50  HO2: Dr Christophe Michon (CNRS - UCCS UMR 8181 - Univ. Lille 1)  
*Hydroamination of unactivated alkenes catalysed by a combination of copper and silver salts: the unveiling of a Bronsted acid catalysis*

11:50 – 12:10  HO3: Prof Christopher Jones (Georgia Institute of Technology)  
*Highly regioselective ring-opening of terminal epoxides with Co(III)-porphyrin, salen and salphen catalysts*

12:10 – 12:30  HO4: Dr Ralf Jackstell (Leibniz Institut für Katalyse an der Universität Rostock)  
*A general and efficient iridium-catalyzed hydroformylation of olefins*

12:30 – 14:00  **Lunch break**

Session on Environmental Catalysis – Senate Room

14:00 – 14:40  E Keynote 1: Xavier Auvray (Chalmers University of Technology)  
*Spatiotemporal Analysis Of SCR Reactions In Zeolite SCR Catalysts*

14:40 – 15:00  EO1: Eleonora Aneggi (Fisica e Ambiente, Università di Udine)  
*Evidence of a redox route mechanism in soot oxidation over ceria*

15:00 – 15:20  EO2: Benat Pereda-Ayo (University of the Basque Country)  
*Studies on nitrogen formation pathways during the regeneration of NOx storage and reduction catalysts assisted by isotope labelling techniques*

15:20 – 15:40  EO3: Dr Petr Koci (Institute of Chemical Technology, Prague)  
*Modelling of N2O formation during the regeneration of NOx storage catalysts*

15:40 – 16:10  **Tea break.**

16:10 – 16:30  EO4: Andrew Beale (Utrecht University)  
*Isolated Cu2+: active sites for selective catalytic reduction of NO*

16:30 – 16:50  EO5: Alexandre Baylet (Université de Lyon)  
*Sulphated TiO2 for selective catalytic reduction of NOx by decane*

16:50 – 17:10  EO6: Luis J. Alemany (University of Malaga)  
*Nanofibrous Pt-Ba lean NOx catalyst with improved sulfur resistance and thermal durability*
Tuesday, 30th August 2011.

**Bute Hall**

09:00 – 10:00  
Plenary lecture: Prof Manfred Reetz (Max-Planck-Institut für Kohlenforschung, Mülheim)  
*Tuning Monoxygenases by Genetic and Chemical Means*

10:00 – 10:30  
Coffee break

**Session on Catalyst Characterisation – Bute Hall**

10:30 – 10:50  
CO13: Prof Wolfgang Grünert (Ruhr University Bochum)  
*New facets of a proven catalyst system: the response of V$_2$O$_5$-WO$_3$/TiO$_2$ deNO$_x$ catalysts to thermal stress and what it tells about the V-W interaction*

10:50 – 11:10  
CO14: Dr William Partridge (Oak Ridge National Laboratory)  
*Axial redistribution of NO$_x$ storage and resulting impact on leanNO$_x$ trap performance under fast lean/rich cycling conditions*

11:10 – 11:30  
CO15: Prof Emrah Ozensoy (Bilkent University)  
*NO$_x$ uptake and storage properties of BaO$_x$/Pt(111) model catalyst: influence of Ba coverage, surface morphology and stoichiometry*

11:30 – 11:50  
CO16: Andrzej Kotarba (Jagiellonian University)  
*Assignment of active sites in cobalt spinel catalyst for low temperature N$_2$O decomposition*

11:50 – 12:10  
CO17: Mr Naresh Muddada (University of Oslo)  
*Influence of dopants on oxychlorination catalyst: an insight through combined spectroscopy and kinetic tests*

12:10 – 12:30  
CO18: Dr Elena Golubina (M.V.Lomonosov Moscow State University)  
*The role of support in formation and stabilization of catalytically active metal nanoparticles for hydrodechlorination*

**12:30 – 14:00 Lunch break**

14:00 – 14:40  
C Keynote 2: Prof Jan-Dierk Grunwaldt, (Karlsruhe Institute of Technology)  
*Probing Catalysts In Action: Time And Spatially Resolved Information Using X-Ray Absorption Spectroscopy*

14:40 – 15:00  
CO19: Patricia Benito (University Of Bologna)  
*X-ray absorption and XRD/XRF tomography at micro and nanoscale for the characterization of structured catalysts*

15:00 – 15:20  
CO20: Matthias Bauer (Karlsruhe Institute of Technology)  
*Synchrotron radiation and catalysis: new insights into structure and electronic details by exotic but powerful methods*

15:20 – 15:40  
CO21: Christiane Kartusch (ETH Zurich)  
*In situ determination of the oxidation state of gold supported on ceria in the liquid phase hydrogenation of nitrobenzene*

**15:40 – 16:10 Tea break**

16:10 – 16:30  
CO22: Prof Michael Claeyts (University of Cape Town)  
*Study on formation and stability of cobalt carbide in the Fischer-Tropsch synthesis using an in-situ magnetometer*

16:30 – 16:50  
CO23: Prof Dragomir Bukur (Texas A&M University at Qatar)  
*Fischer-Tropsch synthesis on Co/Al$_2$O$_3$ catalyst – effect of reductant type*

16:50 – 17:10  
CO24: Laure Braconnier (IFP Energies nouvelles)  
*Orientation of the crystalline phase during cobalt catalysts activation followed by operando XRD and DRIFTS*
Tuesday, 30th August 2011.

Bute Hall

09:00 – 10:00  Plenary lecture: Prof Manfred Reetz (Max-Planck-Institut für Kohlenforschung, Mülheim)

Tuning Monooxygenases by Genetic and Chemical Means

10:00 – 10:30  Coffee break

Session on Catalyst Preparation – James Watt South Lecture Theatre

10:30 – 10:50  PO11: Dr.-Ing. Ralph Kraehnert (Technical University of Berlin)

Mesoporous IrO$_2$ films templated by peo-b-pb-b-peo block-copolymers: self-assembly, crystallization behaviour and electro-catalytic OER performance

10:50 – 11:10  PO12: Dr Xiaowei Chen (University of Cadiz)

Synthesis of ceria-praseodymia nanotubes with high catalytic activity for CO oxidation

11:10 – 11:30  PO13: Annelies Peeters (K.U. Leuven)

Lewis acid double metal cyanide catalysts for hydroamination

11:30 – 11:50  PO14: Dr Sergei Vereshchagin (Institute of Chemistry and Chemical Technology SB RAS)

Ferric oxide based microspheres as catalyst for OCM process – a new approach to catalyst design

11:50 – 12:10  PO15: Dr Jonathan Bartley (Cardiff University)

Synthesis of high surface area CuMnO$_x$ catalysts by supercritical antisolvent precipitation

12:10 – 12:30  PO16: Zhili Dong (Nanyang Technological University)

Facile synthesis of hierarchical titanate catalysts by electrochemical spark discharge spallation

12:30 – 14:00  Lunch break

14:00 – 14:20  PO17: Mr James Charles Pritchard (Cardiff University)

Direct synthesis of hydrogen peroxide using Au-Pd/C catalysts prepared by sol-immobilization

14:20 – 14:40  PO18: Mr Kevin Guillois (IRCELYON)

Design of a silica-supported gold catalyst for the aerobic epoxidation of trans-stilbene in methylcyclohexane

14:40 – 15:00  PO19: Dr Kristzina Frey (Institute of Isotopes, Hungary)

SiO$_2$ supported Ag-Au alloy nanoparticles with high catalytic activity in different reactions

15:00 – 15:20  PO20: Dr. Jennifer K. Edwards (Cardiff University)

Effect of the reaction conditions on the performance of Au-Pd/C catalysts for the direct synthesis of hydrogen peroxide

15:20 – 15:40  PO21: Dr Wenjie Shen (Dalian Institute of Chemical Physics)

Stabilized gold particles on ceria nanorods for WGS reaction

15:40 – 16:10  Tea break

16:10 – 16:30  PO22: Shanshan Wang (Max-Planck-Institut für Kohlenforschung)

Highly active supported copper nanoparticles in methanol synthesis

16:30 – 16:50  PO23: Ying Guo (Humboldt-Universität zu Berlin)

Sol-gel synthesis and characterization of nanoscopic transition metal fluorides

16:50 – 17:10  PO24: Kazuhiko Maeda (University of Tokyo)

Improvement of photocatalytic activity of tantalum oxynitride for hydrogen evolution from water under visible light by introducing zirconia nanoparticles
Wednesday, 31st August 2011.

**Bute Hall**

09:00 – 10:00  Plenary lecture: Prof. Rutger van Santen (University of Eindhoven, FG lecturer)
*Structure sensitivity and insensitivity in heterogeneous catalysis*

10:00 – 10:30  Coffee break

**Session on Catalyst Preparation – James Watt South Lecture Theatre**

10:30 – 11:10  P: Keynote 3: Prof Eric Marceau (UMR7197 CNRS – UPMC)
*In Situ Study Of The Impact Of Sorbitol Addition And Ruthenium Promotion On The Structure And Performance Of SiO2-Supported Cobalt Catalysts For Fischer-Tropsch Synthesis*

11:10 – 11:30  PO25: Hirsa Torres Galvis (Utrecht University)
*Stable iron catalysts for the selective production of lower olefins from synthesis gas*

11:30 – 11:50  PO26: Karolina Rohan (Unité de Catalyse et de Chimie de Solide)
*New heteropolyanionic niobium-tungsten based precursors for fluid catalytic cracking and hydrocracking pre-treatment catalysts*

11:50 – 12:10  PO27: José Antonio Diaz (Universidad de Castilla - la Mancha)
*Gas-phase hydrogenation of 2-tert-butylphenol using Ni catalysts supported on carbonaceous materials*

12:10 – 12:30  PO28: Professor Youzhu Yuan (Xiamen University)
*High activity and selectivity of carbon nanotube supported Ag catalysts for hydrogenation of dimethyl oxalate*

12:30 – 14:00  Lunch break
Wednesday, 31st August 2011.

**Bute Hall**

**09:00 – 10:00**
Plenary lecture: Prof. Rutger van Santen (University of Eindhoven, FG lecturer)
*Structure sensitivity and insensitivity in heterogeneous catalysis*

**10:00 – 10:30**
Coffee break

**Session on Catalyst Characterisation – Bute Hall**

**10:30 – 10:50**
CO25: Kazuhiko Amakawa (Fritz-Haber-Institut der Max-Planck-Gesellschaft)
*Insight into the active site of molybdenum oxide supported on SBA-15 in propene metathesis*

**10:50 – 11:10**
CO26: Andreas Haghofer (Vienna University of Technology)
*Pd/Ga₂O₃ methanol steam reforming catalysts: an in situ x-ray absorption study*

**11:10 – 11:50**
C:Keynote 2: Davide Ferri (Empa, Swiss Federal Laboratories for Materials Science and Technology)
*Making EXAFS Surface Sensitive? A Concentration Modulation Study Of CO-NO On Rh/Al₂O₃ And Pd/Al₂O₃*

**11:50 – 12:10**
CO27: Dr. Michael Haevecker (Helmholtz-Zentrum Berlin / BESSY II)
*Surface evolution of a phase-pure M1 MoVTeNb oxide catalyst under selective propane oxidation conditions*

**12:10 – 12:30**
CO28: Mrs Dorothee Laurenti (CNRS)
*Clean preparation method for a proper evaluation of the support effect for CoMo and NiMo catalysts*

**12:30 – 14:00**
Lunch break
Wednesday, 31st August 2011.

Bute Hall

09:00 – 10:00  Plenary lecture: Prof. Rutger van Santen (University of Eindhoven, FG lecturer)
*Structure sensitivity and insensitivity in heterogeneous catalysis*

10:00 – 10:30  Coffee break

Session on Kinetics and Mechanism – Humanities Lecture Theatre

10:30 – 11:10  K Keynote 4: Prof. Xinhe Bao (Dalian Institute of Chemical Physics)
*Catalytic Chemistry of the Nano-confined Systems*

11:10 – 11:30  KO23 Prof. Toshihiro Miyao (University of Yamanashi)
*Effect of various additives on selective CO methanation over Ru-doped Ni-Al oxide catalyst*

11:30 – 11:50  KO24: Xenophon Verykios (University of Patras)
*Mechanistic aspects of the selective methanation of CO over Ru/TiO2 catalyst*

11:50 – 12:10  KO25: Barbara Graf (Laboratory of Industrial Chemistry, Ruhr-University Bochum)
*The coupling of transient kinetic measurements with adsorption calorimetry for the investigation of CO adsorption and methane formation on iron catalysts applied in Fischer-Tropsch synthesis*

12:10 – 12:30  KO26: Anders Holmen (Norwegian University of Science and Technology)
*A study of chain propagation and termination on a 20% cobalt supported on carbon nanotube (CNT) Fischer-Tropsch catalyst*

12:30 – 14:00  Lunch break
Wednesday, 31st August 2011.

**Bute Hall**

09:00 – 10:00   Plenary lecture: Prof. Rutger van Santen (University of Eindhoven, FG lecturer)
*Structure sensitivity and insensitivity in heterogeneous catalysis*

10:00 – 10:30   Coffee break

**Session on Catalyst Deactivation – Senate Room**

10:30 – 10:50   DO1: Dr. Ard Koeken (Utrecht University)
*Carbon deposition during iron catalyzed Fischer-Tropsch synthesis studied with a tapered element oscillating microbalance*

10:50 – 11:10   DO2: Majid Sadeqzadeh (Ecole Centrale de Lille)
*Sintering of cobalt-based catalysts in a fixed bed Fischer-Tropsch reactor: mechanism and modelling*

11:10 – 11:30   DO3: Cathrin Welker-Nieuwoudt (Sasol Technology)
*The impact of cobalt aluminate formation on the deactivation of cobalt-based Fischer-Tropsch synthesis catalysts*

11:30 – 11:50   DO4: Dr. Ludovic Pinard (Université de Poitiers)
*Identification of carbonaceous compounds resistant at the “rejuvenation treatment” of a spent cobalt-based Fischer-Tropsch synthesis catalyst.*

11:50 – 12:30   D Keynote 1: Dr. Andrei Khodakov (UCCS, UMR8181 CNRS)
*Different cobalt species in working alumina supported catalysts and their role in Fischer-Tropsch synthesis*

12:30 – 14:00   Lunch break
Wednesday, 31st August 2011.

**Bute Hall**

09:00 – 10:00  Plenary lecture: Prof. Rutger van Santen (University of Eindhoven, FG lecturer)
*Structure sensitivity and insensitivity in heterogeneous catalysis*

10:00 – 10:30  Coffee break

**Session on Industrial Application – Kelvin Gallery**

10:30 – 10:50  IO27: Prof Rasmus Fehrmann (Technical University of Denmark)
*Novel deNOx catalysts for biomass fired units*

10:50 – 11:10  IO28: Prof. Isabella Nova, (LCCP, dip. Energia, Politecnico di Milano)
*A fundamental study of the enhanced SCR reaction over a V₂O₅-WO₃/TiO₂ catalyst for stationary applications*

11:10 – 11:30  IO29: Prof Alessandro Trovarelli  (University of Udine)
*NH₃ SCR catalysts based on mixed FeEr vanadates*

11:30 – 11:50  IO30: Masaoki Iwasaki (Toyota Central R&D Labs., Inc.)
*Fe/zeolite catalysts for NO reduction by NH₃: quantification of active sites and enhancement of hydrothermal stability*

11:50 – 12:10  IO31: Dmitry Doronkin (Technical University of Denmark, CINF)
*Combining Ag/Al₂O₃ and Fe-BEA to obtain active and stable catalyst for H₂-assisted NOx SCR by NH₃*

12:10 – 12:30  IO32: Dr.Antonio Eduardo Palomares (Instituto Tecnologia Quimica (UPV-CSIC))
*TNU9, a new active zeolite for the NOx selective catalytic reduction*

12:30 – 14:00  Lunch break
Thursday, 1st September 2011.

**Bute Hall**

09:00 – 10:00  Plenary lecture: Prof. Istvan Horvath (City University of Hong Kong)
*Heterogenization of Homogeneous Catalytic Systems*

10:00 – 10:30  Coffee break

**Session on Industrial Application – Kelvin Gallery**

10:30 – 11:10  I: Keynote 2: Prof. Erik Fridell (IVL Swedish Environmental Research Institute)
*Shipping - emissions, regulations and aftertreatment*

11:10 – 11:30  IO33: Shailesh S Sable (Universitat Rovira i Virgili)
*Clofibrlic acid degradation by ozonation using hydrotalcite-like catalysts*

11:30 – 11:50  IO34: Lucio Ronchin (University Ca’ Foscari of Venice)
*Hydrogenation of nitrobenzene to 4-aminophenol in a fully reusable solvent system, by using Pt, Rh, Pd supported on carbon-CF₃COOH catalytic system*

11:50 – 12:10  IO35: Lioubov Kiwi-Minsker (Ecole Polytechnique Fédérale de Lausanne)
*Gold-promoted chemoselective production of aromatic amines over molybdenum nitride in both gas and liquid phase*

12:10 – 12:30  IO36: Silvia Morales-delaRosa (Instituto de Catálisis y Petroleoquímica, CSIC)
*Catalytic epoxidation of cyclohexene with tertbutyl hydroperoxide using molybdenum heterogeneous catalysts*

12:30 – 14:00  Lunch break

**Bute Hall**

14:00 – 15:00  Plenary lecture: Prof. James A. Dumesic (University of Wisconsin – Madison)
*Routes for Production of Liquid Transportation Fuels by Liquid-phase Catalytic Processing*

**Session on Industrial Application – Kelvin Gallery**

15:00 – 15:20  IO37: Clemens Horn (Corning European Technology Center)
*A simple and highly active palladium chloride based catalyst for glass microchannel reactors*

15:20 – 15:40  IO38: Dr Mimi Hii (Imperial College)
*Alkylation of amines by alcohols in a continuous flow reactor*

15:40  Tea break
Thursday, 1st September 2011.

**Bute Hall**

09:00 – 10:00  
Plenary lecture: Prof. Istvan Horvath (City University of Hong Kong)  
*Heterogenization of Homogeneous Catalytic Systems*

10:00 – 10:30  
Coffee break

Session on Kinetics and Mechanism – Humanities Lecture Theatre

10:30 – 10:50  
KO27: Shuichi Koso (Tohoku University)  
*Mechanism of the hydrogenolysis of ethers over silica-supported rhodium catalyst modified with rhenium oxide*

10:50 – 11:10  
KO28: Prof Chris Hardacre (Queen’s University, Belfast)  
*Highly selective and efficient titania supported Pt and Pt-Re catalysts for liquid phase hydrogenation of carboxylic acids and amides at low temperatures and pressures*

11:10 – 11:30  
KO29: Agnieszka Soltysek (Silesian University of Technology)  
*Activity investigations of oxysalts prepared from nitrate and oxide*

11:30 – 11:50  
KO30: Willinton Yesid Hernández Enciso (Université Claude Bernard Lyon 1 / IRCELYON)  
*Electrochemical Pt-Ba/YSZ catalyst for NOx storage-reduction*

11:50 – 12:10  
KO31: Peter Hausoul (Utrecht University)  
*Pd-catalysed telomerization of 1,3-butadiene with biomass-based alcohols: substrate screening, mechanism and heterogenization.*

12:10 – 12:30  
KO32: Tobias Hamerla (Technical University Berlin)  
*Rhodium catalyzed hydroformylation of 1-dodecene in microemulsions*

12:30 – 14:00  
Lunch break

**Bute Hall**

14:00 – 15:00  
Plenary lecture: Prof. James A. Dumesic (University of Wisconsin – Madison)  
*Routes for Production of Liquid Transportation Fuels by Liquid-phase Catalytic Processing*

Session on Kinetics and Mechanism – Humanities Lecture Theatre

15:00 – 15:20  
KO33: Dr. Devis Di Tommaso (University College)  
*Iron diphosphine diamine complexes as alternative catalysts for asymmetric hydrogenation of ketones? A DFT study*

15:20 – 15:40  
KO34: Prof Vasile Parvulescu (University of Bucharest)  
*The epoxidation/epoxide ring-opening reaction of trans-methylcinnamate ester in the presence of a novel heterogeneous chiral dimer Cr(III)-salen complex*

15:40  
Tea break
Thursday, 1st September 2011.

Bute Hall

09:00 – 10:00  Plenary lecture: Prof. Istvan Horvath (City University of Hong Kong)  
Heterogenization of Homogeneous Catalytic Systems

10:00 – 10:30  Coffee break

Session on Catalyst Deactivation – Senate Room

10:30 – 11:10  D: Keynote 2: Dr Stewart Parker (STFC ISIS Facility)  
Carbon Lay Down From Dry Reforming Of Methane Over Ni/Alumina Catalysts  
– What Is It And Where Does It Come From?

11:10 – 11:30  DO5: Jesper Sattler (University of Utrecht)  
Combined in situ time-resolved UV-vis, Raman and x-ray absorption  
spectroscopy study during deactivation of Pt and PtSn propane dehydrogenation  
catalysts

11:30 – 11:50  DO6: Dr James McGregor (University of Cambridge)  
Characterisation of coke deposits using terahertz time-domain spectroscopy

11:50 – 12:10  DO7: Laurent Sauvanaud (Instituto De Tecnologia Quimica)  
Dealing with high coke yields from extra-heavy feeds: removal of coke through  
steam reforming in FCC

12:10 – 12:30  DO8: Dr Benjamin Katryniok (Ecole Centrale de Lille)  
Heteropoly acid catalysts with increased long-term performance in the  
dehydration of glycerol

12:30 – 14:00  Lunch break

Bute Hall

14:00 – 15:00  Plenary lecture: Prof. James A. Dumesic (University of Wisconsin – Madison)  
Routes for Production of Liquid Transportation Fuels by Liquid-phase Catalytic  
Processing

Session on Catalyst Deactivation – Senate Room

15:00 – 15:20  DO9: Dr Gilles Berhault (IRCELYON)  
New efficient maleic acid additive for the activation of regenerated CoMo/Al2O3  
hydrosulfurization catalysts

15:20 – 15:40  DO10: Dr Burcin Temel (Haldor Topsoe A/S)  
Atomic-scale insight into the origin of pyridine inhibition of MoS2-based  
hydrotreating catalysts

15:40  Tea break
Thursday, 1st September 2011.

**Bute Hall**

09:00 – 10:00  Plenary lecture: Prof. Istvan Horvath (City University of Hong Kong)  
*Heterogenization of Homogeneous Catalytic Systems*

**10:00 – 10:30**  Coffee break

**Session on Catalyst Preparation – James Watt South Lecture Theatre**

10:30 – 10:50  PO29: Mr Alan McCue (University of Aberdeen)  
*Heterogenisation of Mn salen complexes for epoxidation*

10:50 – 11:10  PO30: David Xuereb (University of Southampton)  
*Strategies for organocatalyst heterogenization: effects on active site environment and catalysis*

11:10 – 11:30  PO31: Dr Anna M Segarra (University Rovira i Virgili)  
*Nanohybrid materials based on l-proline and hydrotalcites as catalysts for direct asymmetric aldol reaction*

11:30 – 11:50  PO32: Prof Gopal Mishra (University of Trás-os Montes and Alto Douro)  
*Synthesis, x-ray structural characterization and immobilization of scorpionate Cu complex on SBA-15: application in the liquid-gas phase cycloalkane O2 oxidation*

11:50 – 12:10  PO33: Tamara Eggenhuisen (Utrecht University)  
*(Cryo-)electron tomography to visualise fundamental processes of supported catalyst preparation*

12:10 – 12:30  PO34: Miranda Smith (Louisiana State University)  
*FTIR study of CO hydrogenation on Co/SiO2 and CuCo/SiO2*

**12:30 – 14:00**  Lunch break

**Bute Hall**

14:00 – 15:00  Plenary lecture: Prof. James A. Dumesic (University of Wisconsin – Madison)  
*Routes for Production of Liquid Transportation Fuels by Liquid-phase Catalytic Processing*

**Session on Catalyst Preparation – James Watt South Lecture Theatre**

15:00 – 15:20  PO35: Salvador Ordóñez (University of Oviedo)  
*Enhancement of the basic properties of magnesium-zirconium oxides by supporting on non-microporous carbons*

15:20 – 15:40  PO36: Dr Anne Mette Frey (Utrecht University)  
*Nano sized alkaline earth metal oxide on carbon nanofibers as solid base catalysts: influence of base strength on the catalytic properties*

**15:40**  Tea break
Thursday, 1st September 2011.

**Bute Hall**

09:00 – 10:00  Plenary lecture: Prof. Istvan Horvath (City University of Hong Kong)  
*Heterogenization of Homogeneous Catalytic Systems*

10:00 – 10:30  Coffee break

**Session on Catalyst Characterisation – Bute Hall**

10:30 – 10.50  CO29: Dr Malte Behrens (Fritz-Haber-Institut, Berlin)  
*Defect analysis of high performance catalysts. What makes Cu active in methanol synthesis?*

10:50 – 11:10  CO30: Timur Kandemir (Fritz-Haber-Institut, Berlin)  
*In-situ neutron diffraction under high pressure - providing an insight into a working catalyst*

11:10 – 11:30  CO31: Tegan Roberts (University of Cambridge)  
*Probing surface interactions with magnetic resonance*

11:30 – 12:30  CO32: Dr Margarita Kantcheva (Bilkent University)  
*Gold supported on ceria doped by Al(III) and Sm(III) as catalyst for water gas shift reaction*

12:30 – 14:00  Lunch break

**Bute Hall**

14:00 – 15:00  Plenary lecture: Prof. James A. Dumesic (University of Wisconsin – Madison)  
*Routes for Production of Liquid Transportation Fuels by Liquid-phase Catalytic Processing*

**Session on Catalyst Characterisation – Bute Hall**

15:00 – 15:20  CO33: Eglantine Arendt (Université catholique de Louvain)  
*How to take advantage of Dawson heteropoly compounds reorganisation in the 2-butanol reaction?*

15:20 – 15:40  CO34: Prof Ivan Kozhevnikov (University of Liverpool)  
*Solid acid catalysts based on H3PW12O40 heteropoly acid: acid and catalytic properties at a gas-solid interface*

15:40  Tea break
Friday 2nd September 2011.

**Bute Hall**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>09:00 – 10:00</td>
<td>Plenary lecture sponsored by the Royal Society of Chemistry: Prof. Matthias Beller (Leibniz Institute for Catalysis, Rostock) <em>Development of Practical Molecular-defined Catalysts for Industrial Applications and Hydrogen Technology</em></td>
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<tr>
<td>10:00 – 10:30</td>
<td>Coffee break</td>
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**Session on Catalyst Preparation – James Watt South Lecture Theatre**

<table>
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<tr>
<th>Time</th>
<th>Speaker and Affiliation</th>
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<tr>
<td>10:30 – 10:50</td>
<td>Paolo Pescarmona (University of Leuven (K.U. Leuven)) <em>Chemical fixation of carbon dioxide catalysed by multilayered supported ionic liquids</em></td>
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<tr>
<td>10:50 – 11:10</td>
<td>Ir. Christa Ros (TU Delft) <em>Copper deposition for the preparation of new catalysts for the electrocatalytic reduction of CO₂</em></td>
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<td>11:10 – 11:30</td>
<td>Hirokazu Kobayashi (Hokkaido University) <em>Conversion of cellulose by supported ruthenium catalysts</em></td>
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<tr>
<td>11:30 – 11:50</td>
<td>Zhen Zhao (China University of Petroleum) <em>Facile synthesis of three-dimensionally ordered macroporous La₁₋ₓKₓCoO₃ catalysts and their high activities for the catalytic combustion of soot</em></td>
</tr>
<tr>
<td>11:50 – 12:10</td>
<td>Robert French (University of Twente) <em>Micro and nano-structuring for photoreactor intensification</em></td>
</tr>
<tr>
<td>12:10 – 12:30</td>
<td>Dr Nadezhda Shikina (Boreskov Institute of Catalysis) <em>Synthesis and study of Pt-Pd-catalysts for inlet section of combined catalyst packages of gas turbines</em></td>
</tr>
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<td>12:30 – 14:00</td>
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Friday 2nd September 2011.  

**Bute Hall**

09:00 – 10:00  Plenary lecture sponsored by the Royal Society of Chemistry:  
Prof. Matthias Beller (Leibniz Institute for Catalysis, Rostock)  
*Development of Practical Molecular-defined Catalysts for Industrial Applications and Hydrogen Technology*

10:00 – 10:30  Coffee break

**Session on Catalyst Characterisation – Bute Hall**

10:30 – 10:50  CO35: Dr Patricia Kooyman (Delft University of Technology)  
*Real in-situ TEM at atmospheric pressure using a nanoreactor*

10:50 – 11:10  CO36: Javier Ruiz-Martinez (Utrecht University)  
*Imaging catalytic activity in individual cracking catalyst particles by selective staining*

11:10 – 11:50  C: Keynote 4: Prof. Gary Attard (Cardiff University)  
*Electrochemical perspectives on Catalysis*

11:50 – 12:10  CO37: Ms Cristina Stere (Queen's University Belfast)  
*SPACIMS - spatial and temporal operando resolution of structured catalysts*

12:10 – 12:30  CO38: Dr Krisztina Frey (Institute of Isotopes, Hungary)  
*High catalytic activity in CO oxidation over MnOx nanocrystals*

12:30 – 14:00  Lunch break
Friday 2\textsuperscript{nd} September 2011.

\textbf{Bute Hall}

\textbf{09:00 – 10:00}

Plenary lecture sponsored by the Royal Society of Chemistry: Prof. Matthias Beller (Leibniz Institute for Catalysis, Rostock)
\textit{Development of Practical Molecular-defined Catalysts for Industrial Applications and Hydrogen Technology}

\textbf{10:00 – 10:30}

Coffee break

\textbf{Session on Kinetics and Mechanism – Humanities Lecture Theatre}

\textbf{10:30 – 10:50}

KO35: Dr James McGregor, (University of Cambridge)
\textit{Solvent structure and dynamics in heterogeneous catalysis}

\textbf{10:50 – 11:10}

KO36: Dr. Thomas Müller (RWTH Aachen University)
\textit{Selective hydrogenation of aldoximes to primary amines on heterogeneous catalysts}

\textbf{11:10 – 11:30}

KO37: Mr Erik Hagebols (University of Aberdeen)
\textit{Pd catalysed hydrogenation of hexyne modified by sulfur and tin.}

\textbf{11:30 – 11:50}

KO38: Rocio Micaela Crespo Quesada (Ecole Polytechnique Fédérale de Lausanne)
\textit{Shape and size-tailored Pd nanoparticles to study the structure sensitivity of 2-methyl-3-buty-2-ol hydrogenation}

\textbf{11:50 – 12:10}

KO39: Prof Chris Hardacre (Queen’s University, Belfast)
\textit{Insights into the influence of solvent structure on the rate and selectivity in the hydrogenation of citral and butan-2-one}

\textbf{12:10 – 12:30}

KO40: Maarten Sabbe (Universiteit Gent)
\textit{Benzene hydrogenation on Pt\textsubscript{3}M bimetallic catalysts: a first principles study}

\textbf{12:30 – 14:00}

Lunch break
Friday 2nd September 2011.

Bute Hall

09:00 – 10:00  Plenary lecture sponsored by the Royal Society of Chemistry:
Prof. Matthias Beller (Leibniz Institute for Catalysis, Rostock)
*Development of Practical Molecular-defined Catalysts for Industrial Applications and Hydrogen Technology*

10:00 – 10:30  Coffee break

Session on Catalyst Deactivation – Senate Room

10:30 – 11:10  D: Keynote 3: Dr Petra E de Jongh, (Utrecht University)
*Confinement Of Cu/ZnO Methanol Synthesis Catalysts In Caged SiO$_2$ Mesostructures: A Strategy Towards Enhanced Sintering Resistance*

11:10 – 11:30  DO11: Dr Frederic Meunier (CNRS - University of Caen)
*Correlation between deactivation and Pt-carbonyl formation during toluene hydrogenation using a H$_2$/CO$_2$ mixture.*

11:30 – 11:50  DO12: Sebastian Fogel (Haldor Topsøe A/S)
*Optimising Al$_2$O$_3$ for H$_2$-assisted NH$_3$-SCR for NOx-removal*

11:50 – 12:10  DO13: Dr Irina Simakova (Boreskov Institute of Catalysis)
*Kinetic and deactivation aspects in the transformation of pinene to camphene over gold catalysts*

12:10 – 12:30  DO14: Prof Chris Hardacre (Queen's University Belfast)
*Influence of methyl halide treatment on gold nanoparticles supported on activated carbon*

12:30 – 14:00  Lunch break
Friday 2nd September 2011.

**Bute Hall**

09:00 – 10:00  
Plenary lecture sponsored by the Royal Society of Chemistry:  
Prof. Matthias Beller (Leibniz Institute for Catalysis, Rostock)  
*Development of Practical Molecular-defined Catalysts for Industrial Applications and Hydrogen Technology*

10:00 – 10:30  
Coffee break

**Session on Industrial Application – Kelvin Gallery**

10:30 – 11.10  
I: Keynote 3: Dr Chris Mitchell (Huntsman Polyurethanes)  
*Development Of A New Aniline Process: Lowering The Carbon Footprint Of The MDI Manufacturing Chain*

11:10 – 11:30  
IO39: N Shiju (University of Amsterdam)  
*Liquid-phase Beckmann rearrangement of cyclohexanone oxime to caprolactam over WOx/ZrO2 catalysts*

11:30 – 11:50  
IO40: Dr. Cecilia Mondelli (ETH Zurich)  
*Shaped RuO2/SnO2-Al2O3 catalyst for large-scale stable Cl2 production by HCl oxidation*

11:50 – 12:10  
IO41: Katharina Teinz (Humboldt Universität zu Berlin)  
*Highly active and selective metal fluoride catalysts for dehydrohalogenation of 3-chloro-1,1,1,3-tetrafluorobutane*

12:10 – 12:30  
IO42: Dr Christophe Dujardin (Université de Lille1)  
*Thermal stability of perovskite based catalysts (LaCoFeO3) for the decomposition of nitrous oxide from nitric acid plants*

12:30 – 14:00  
Lunch break