

Program ISHHC17

Sunday, July 12 (City center)

13.00 – 15.00	Registration University Hall
15.00 – 15.20	Welcome by organization Dom Church <i>Chair: Bert Weckhuysen</i>
15.20 – 16.10	Opening lecture - PL1 <i>R. Schlögl</i> (Lecture hall: Dom Church) Catalytic Performance and Structural Dynamics of Solid Systems <i>Chair: Pieter Bruijninx</i>
16.10 – 17.00	Opening lecture - PL2 <i>J.C.M. van Hest</i> (Lecture hall: Dom Church) Compartmentalized Catalysts <i>Chair: Bert Klein Gebbink</i>
17.00 – 19.00	Reception at University Hall and Pandhof

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Monday, July 13 (University Campus)

09:00 – 09.50	PL3 C. Li (Lecture hall: Theatron) Homogeneous Catalysis in Heterogeneous Nanoreactors Chair: Krijn de Jong (UU)		
Lecture hall	Megaron Chair: Kuiling Ding (SIOC, Shanghai)	Theatron Chair: Maarten Roeffaers (KU Leuven)	Blauw Chair: Bert Klein Gebbink
10.00	O4.1 X. Xu Selective Catalysis of a Phosphine-Tagged Metal-Organic Framework Organocatalyst	O2.1 N. Ishiguro In Situ Time-resolved XAFS Study for Rate Enhancements in PEFC Cathode Reactions on Pt ₃ M (Pt=Co, Ni) Cathode Electrocatalysts	O3.1 Y. Uozumi Molecular Architecture-Based Administration of Catalysis in Water via Self-Assembly of Amphiphilic Palladium Pincer Complexes
10.20	O4.2 S. Pullen Incorporation of Molecular Proton Reduction Catalysts into Metal-Organic Frameworks	O2.2 S.A. Blum Catalyst Inefficiencies: Ensemble Rate From Few Active Polymerization Sites	O3.2 F. Wang Lattice Modifications on Metal Oxides Toward Efficient Heterogeneous Catalysts
10.40	Coffee break		
11.10	KL4.1 C. Duan The Controllable Incorporation of Multifunctional Sites into Metal Organic-Frameworks and Their Application in Synergistic Catalysis	O2.3 I.V. Koptuyug Catalysis and Signal Enhancement in Nuclear Magnetic Resonance	O3.3 M. Sawamura Hydrogen Bonding with a Nonpolar sp ³ -C-H Bond in Enantioselective Cooperative Copper Catalysis
11.30		O2.4 A. Moscu CO PROX over Pt-Sn/Al ₂ O ₃ : a Kinetic and In Situ DRIFTS Study	O3.4 M. Renom-Carrasco Pushing the Limits of Ru-Based Tandem Metathesis-Hydrogenation
11.50	O4.3 P.J.C. Hausoul Tunable Solid Molecular Catalysts for Renewable H ₂ Production	O2.5 A. Comas-Vives NMR Signatures of the Active Sites in Sn-β Zeolite	KL3.1 D.J. Dixon New High Performance Bifunctional Superbase Organocatalysts and their Reactions
12.10	O4.4 P. Valvekens Immobilization of Basic Oxygen Sites in Metal-Organic Frameworks for Catalysis	O2.6 H. Daly STOS-ATR-IR Spectroscopy to Probe Changes in Adsorption Geometry for Determination of Selectivity in the Hydrogenation of Citral	
12.30	Lunch		
14.00 – 14.50	PL4 K. Goldberg (Lecture hall: Theatron) Catalysis, Mechanistic Understanding and Collaboration as Tools to Sustainable Production of Chemicals and Fuels Chair: Gerard van Koten (UU)		
Lecture hall	Megaron Chair: Rosa Bulo (UU)	Theatron Chair: Suzanne Blum (UC Irvine)	Blauw Chair: Masaya Sawamura (Hokkaido Univ.)
15.00	O1.1 F.C. Jentoft Acid-Catalyzed Hydrocarbon Reactions: Pathways Unique to Surfaces and Pores	O2.7 F. Meemken Structure-Enantioselectivity Relationship of Chirally-Modified Pt Catalyst for Heterogeneous Asymmetric Hydrogenation	O3.5 E. Otten A Metal-Ligand Cooperative Pathway for Intermolecular Oxa-Michael Additions to Unsaturated Nitriles
15.20	O1.2 Q. Yang Adjusting the Acid Strength of Sulfonated Polystyrene in Confined Nanospace of Silica Hollow Nanospheres	KL2.1 J.D. Grunwaldt Probing the Structure of Catalysts at Work by Advanced X-Ray Techniques	O3.6 S. Kusumoto Hydroxycyclopentadienyliridium Catalysts Unique Reactivity and Selectivity by Metal-Ligand Cooperation
15.40	O1.3 M. Schmal Increase of Oxygen Vacancies In CeO ₂ By Fe ⁺³ Incorporation		O3.7 E.A. Pidko Hydrogenation of CO ₂ to Formates with Ruthenium Pincer Catalysts: From a Theoretical Description to Performance Optimization
16.00	Coffee break		
16.30	O1.4 V. D'Anna Atomic-Scale Study of the Ziegler-Natta Catalyst	O2.8 S. Hanspal Multiproduct Steady-State Isotopic Transient Kinetic Analysis of the Ethanol Coupling Reaction over Hydroxyapatite and Magnesia	O3.8 A. Dauth A New Mode of Long-Range Metal Ligand Cooperation in Novel Iron PCP-Pincer Complexes - Synthesis and Reactivity
16.50	O1.5 M. Neurock Mechanisms and Active Sites for Methane Activation over Metal and Oxide Catalysts: Analogies to Homogeneous Catalysis	O2.9 M. Tromp Towards Understanding Selective Oligomerisation Catalysts	O3.9 M. Goswami Characterization of Porphyrin Co(III)-Nitrene Radical Species
17.10 – 19:00	Poster session 1 (Lecture hall Beta) Odd poster numbers		

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Tuesday, July 14 (University Campus)

08:30 – 09.20	PL5 S. Kobayashi (Lecture hall: Theatron) Polymer-Incarcerated Metals: Highly Reactive, Recoverable and Multi-Functional Nanoparticles Catalysts for Organic Synthesis Chair: Harry Bitter (Wageningen University, WUR)		
Lecture hall	Megaron Chair: Bas de Bruin (Univ. Amsterdam)	Theatron Chair: Monica Barroso (UU), Pieter Bruijnincx	Blauw Chair: Eelco Vogt (Albemarle, UU)
09.30	O3.10 C. Godard Ligand Stabilized Rh-Nanoparticles for Selective Hydrogenations	O1.6 J.J. Spivey Co ₂ Pd ₂ Clusters: Homogeneous to Heterogeneous	KL5.1 A. van den Berg Microfluidics and Integrated Analytics for Microreactors
09.50	O3.11 K.I. Shimizu Cooperative Catalysis of Lewis Acids and Pt Clusters for Reductive Transformations of Carbon Dioxide, Amides and Carboxylic Acids	O1.7 A. Maurin Electrochemical Reduction of Carbon Dioxide by Surface Supported Iron Porphyrin Molecular Catalysts	Chair : Chris Hardacre (Queen's Univ.)
10.10	Coffee break		
10.40	O3.12 J.C. Sloopweg Cooperative Lewis Acid/Base Catalysis	KL1.1 Y. Roman-Leshkov New Frontiers in the Use of Solid Lewis Acids in Biomass Conversion	O5.1 E.G. Moschetta Hybrid Polymer/Oxide Hollow Fibers as Scalable Flow Reactors for Heterogeneous Catalytic Reactions in Organic Synthesis
11.00	O3.13 G. Jin Iron Catalyzed Reductive Functionalization of CO ₂		O5.2 T. Noël Photoredox Catalysis Accelerated in Continuous-Flow Microreactors
11.20	KL3.2 S. Schneider Redox Transformations of Molecular MNR _x Species in the Context of Nitrogen Fixation and Amine Activation	O1.8 S. Muratsugu Formation Mechanism of Ru Nanocatalysts for Selective Primary Amine Synthesis Studied By In-Situ FT-IR and XAFS	O5.3 Q. Jochyms Click Chemistry at Organic/Water Interfaces for Millifluidic Devices
11.40		O1.9 A.Q. Wang Single-Atom and Pseudo-Single-Atom Catalysts: A Bridge Between Homogeneous and Heterogeneous Catalysis	O5.4 A. Siwek Activation of Fluorinated Methanes at Lewis-Acidic Aluminum Fluoride Surfaces in a Flow Reactor
12.00	Lunch		
13.30 – 14.20	PL6 J.C. Peters (Lecture hall: Theatron) Catalytic Reduction of Nitrogen to Ammonia by Mononuclear Iron Complexes Chair: Berth-Jan Deelman (Arkema, UU)		
Lecture hall	Megaron Chair: Pieter Bruijnincx, Matthias Otte (UU)	Theatron Chair: Marc-Etienne Moret (UU)	Blauw Chair: Eelco Vogt (Albemarle, UU)
14.30	O4.5 A. De Mallmann Vanadium Oxo Organometallic Species Supported on Silica for the Selective Non-oxidative Dehydrogenation of Propane	O1.10 L.E. Heim Catalytic Hydrogen Production using Water and Formaldehyde as Hydrogen Source	KL5.2 P.G. Jessop Designing Solvents to Facilitate Post-Reaction Separations
14.50	O4.6 F.J.L. Heutz Solid-Phase Synthesis of Recyclable Bidentate Phosphorus Ligands	O1.11 K. Barta Iron-Catalysed Direct Amination of Alcohols	Chair: Walter Leitner (RWTH Aachen)
15.10	O4.7 G. Giambastiani Tailoring Carbon Nanotube N-“Dopants” while Designing Truly Metal-Free Electrocatalysts for the Oxygen Reduction Reaction	O1.12 A.M. Khenkin Mars-van Krevelen Type Oxidation of C-H Bonds by Homogeneous Vanadium Substituted Polyoxomolybdates	O5.5 W.J. Zhou Tunable Catalysts for Solvent-Free Biphasic Systems - Pickering Interfacial Catalysts over Amphiphilic Silica Nanoparticles
15.30	Coffee break		
16.00	O4.8 N. Merle Preparation and Characterization of the First Supported Frustrated Lewis Pairs: Application in Hydrogenation	O1.13 J.H. Bitter Homogeneous, Heterogeneous and Bio-Catalytic Deoxygenation of Biobased Feedstocks	O5.6 J. Albert Straightforward Biomass Oxidation to Formic Acid Using Polyoxometalate Catalysts (OxFA process) in an Integrated Biphasic Liquid-Liquid reaction Media
16.20	O4.9 C. Thieuleux Preparation of Highly Active Metallo N-Heterocyclic Carbene Based Heterogeneous Catalysts	O1.14 H. Junge Application of Pincer type Complexes as Catalysts for the Hydrogen Generation from Alcohols and Biomass	O5.7 A. Behr Hydroformylation of 1-Dodecene in Thermomorphic Solvent Systems: Heterogenization of a Homogeneous Catalyzed Reaction
16.40 - 18.30	Poster session 2 (Lecture hall Beta) Even poster numbers		
	Conference diner / Conference party Location: Museum Speelklok / Winkel van Sinkel		

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Wednesday, July 15 (University Campus)

09:30 – 10.20	PL7 <i>M. Beller</i> (Lecture hall: Theatron) Redox-Reactions with Homogeneous or Heterogeneous Catalysts: Which Ones are More Selective? Chair: <i>Emiel Hensen (TU Eindhoven)</i>		
10.20	Coffee break		
Lecture hall	Megaron Chair: <i>Javier Ruiz Martinez (UU)</i>	Theatron Chair: <i>Bert Klein Gebbink</i>	Blauw Chair: <i>Maarten Roefsaers (KU Leuven), Suzanne Blum (UC Irvine)</i>
10.40	O4.10 <i>S. Kunz</i> Functionalization of Platinum Nanoparticles (NPs) with L-Proline - Simultaneous Enhancements of Catalytic Activity and Selectivity	KL1.2 <i>F. Glorius</i> C-H Activation: Mild, Selective and Strategic	O2.10 <i>L.B.F Juurlink</i> Fundamental Insight Into O ₂ Dissociation on Pd and Pt Catalyst Surfaces
11.00	O4.11 <i>E. Lobry</i> Aqueous Biphasic Hydroformylation of 1-Octene using Amphiphilic Ligand-Decorated Nanogel		O2.11 <i>E. Groppo</i> Looking Inside Ziegler-Natta Catalysts
11.20	O4.12 <i>H. Yamashita</i> Design of Plasmonic Nanocatalysts for Efficient H ₂ Production from Ammonia Borane under Visible Light Irradiation	O1.15 <i>Y. Liu</i> Organocatalysis on The Water-Oil Interface	KL2.2 <i>P.A. Crozier</i> In-Situ and Operando TEM of Heterogeneous Catalysts
11.40	O4.13 <i>M. Sanchez-Sanchez</i> Single Site Copper-Oxo Clusters in Mordenite for the Selective Oxidation of Methane to Methanol	O1.16 <i>K.M. Appleby</i> Triphenylphosphine-Stabilised Tri-Palladium Clusters of Relevance to Palladium-Catalyzed Coupling Processes	
12.00	Lunch		
13.00	Chair: <i>Pieter Bruijninx</i> KL4.2 <i>G. Pacchioni</i> Gold Nanostructures on Pure and Doped Oxide Thin Films	Chair: <i>Matthias Otte (UU)</i> O1.17 <i>D.E. de Vos</i> Selective Defunctionalization of Amino Acids to Value-Added Nitriles and Amines on Homogeneous or Heterogeneous Catalysts	Chair: <i>Bert Weckhuysen</i> O2.12 <i>E. Gros</i> High Spatial Resolution In-Situ IR and X-Ray Microspectroscopy Measurements of Multistep Catalytic Reactions in a Flow Reactor
13.20		O1.18 <i>T.J. Korstanje</i> Hydrogenation of Carboxylic Acids Using a Homogeneous Base Metal Catalyst	O2.13 <i>I.M.N. Groot</i> Caught in the Act! Live Observations of Catalysts Using High-pressure Scanning Probe Microscopy
13.40-14.00	O4.14 <i>M.J. Valero-Romero</i> Dynamic Release/Immobilization of Rh-Homogeneous Hydroformylation Catalyst by Polyoxometalate-MOF	O1.19 <i>T. Mayer-Gall</i> Teaching an Old Dog New Tricks - "Organotextile Catalysis"	O2.14 <i>S. Takao</i> Same-View Nano-XAFS/STEM-EDS Imagings of Pt Chemical Species in Degraded Pt/C Cathode Catalyst Layers of a PEFC
14.10	PL8 <i>P. Chen</i> (Lecture hall: Theatron) Single-Molecule Microscopy of Spatiotemporal Catalytic Dynamics on Single Nanocatalysts Chair: <i>Matthijs Ruitenbeek (Dow Chemical Company)</i>		
15.00 – 15.15	Poster awards & Closure		