

Poster Session I

(Bio) Organic Synthesis, Catalytic methods and Bio-catalysis		
I33	Höfler	Photocatalytic generation of H ₂ O ₂ to fuel a haloperoxidase forming a halohydrin product in high purity
I39	Denekamp	A straightforward synthetic route to metal-phthalocyanine complexes
I47	Chatzipanagiotou	Tailoring electro-catalysts to biological conditions
I53	Rauch	Chemoenzymatic cascade for the synthesis of chiral amino alcohols
I62	Milos Trajkovic	Enantio-, regio-, and chemoselective ene-reductions using F ₄ O ₂ H ₂ -dependent enzymes
I72	Leveson-Gower	Directed Evolution of an Artificial Enzyme with a Catalytically Active Unnatural Amino Acid
Applied Heterogeneous Catalysis		
I2	Aguirre	Open-cell metallic foams as support for catalysts: analysis of the mass transfer limitations
I10	Reviere	Sustainable bio-olefin production through dehydration of bio-alcohols over nano-HZSM-5/ γ -Al ₂ O ₃ hybrid catalysts
I32	Chiang	Direct observation of ϵ -iron Carbide formation in an iron-based Fischer-Tropsch Catalysts
I34	Giammaria	CaCO ₃ hydrogenation enhanced by DBD plasma
I36	Geerts-Claes	Synthesis and Characterization of Supported Platinum Model Catalysts
I38	Najjar	Catalytic activity and thermal stability of YSZ-supported lanthanum manganites perovskite prepared by Solution Combustion Synthesis: effect of Y content
I40	Arfaoui	Effect of Ce and SO ₄ ²⁻ on the physicochemical properties of Mn-TiO ₂ as new nanostructured aerogel catalysts for the low temperature NO-SCR by NH ₃ in excess O ₂
I45	Rouwenhorst	Plasma-enhanced ammonia synthesis: Reaction mechanisms involved at various process conditions
I52	Ronda-Lloret	Dry reforming of butane over supported metal catalysts
I60	Ariëns	Towards the development of a chromium free high temperature water gas shift catalyst
I66	Moncada	Non-oxidative coupling of methane by thin catalytic layers-assisted DBD non-thermal plasma
I69	Pengyu Xu	Extreme variation of reaction orders for nitrite hydrogenation on Pd/ γ -Al ₂ O ₃ catalyst in slurry reactor
I76	Franz	Impact of small amounts of promoters for Ni-based dry reforming catalysts
I81	Zanoni	Supported Metallocene Catalysts for Ethylene Polymerization: Influence of the Support Oxide on Activation Efficiency and Fragmentation
I91	Cuyppers	Direct Liquid-Phase Amination of Phenols into Anilines and Cyclohexylamines
I95	Gao	Gas-phase oxidative dehydrogenation of cyclohexanol to cyclohexanone over Au/MgCuCr ₂ O ₄ catalyst
I96	Tao	5-(Hydroxymethyl)furfural synthesis from glucose using Nb ₂ O ₅ heterogeneous catalyst prepared through a novel scCO ₂ -assisted method
Coordination Chemistry		
I20	De Bruin	Biomimetic Non-Heme Iron Complexes Featuring a Novel Monoligating NNO Phenolate Ligand and Biorelevant Cofactors
I30	De Vries	An alternative route towards sterically demanding formazanate ligands
I57	Kappé	A Ni-Complex bearing a tethered B-N π -acceptor ligand
Fundamental Heterogeneous Catalysis		
I41	Meeprasert	Theoretical study of CO ₂ hydrogenation on Cd ₄ /TiO ₂ catalyst
I46	Bossers	X-ray Fluorescence Tomography on the Fragmentation Behaviour of Individual Ziegler-Natta Catalyst Particles
I71	Dalebout	The effect of ZnOx promotion and syngas composition on Cu/C-catalyzed methanol synthesis
I73	Bermejo de Val	Nickel(II) in zeolites mimics its homogeneous complexes in 1-butene dimerization
I78	Wenzel	In Situ Scanning Tunneling Microscopy on ZnO(10-10)
I89	Brouwer	Development of complex model catalysts to study CO ₂ hydrogenation
Homogeneous Catalysis		
I1	Coca	Recoverable Rare-Earth Metal Catalysts for the Synthesis of Tetrazole Derivatives
I3	Afanasenko	New catalytic systems for effective N-alkylation of amines with alcohols
I6	Jupp	Small Molecule Activation by Main-group Radicals
I16	Cazin	Unusual Cu-dimers: Outstanding catalysts in hydrosilylation and mechanistic investigations

I19	Rademaker	Cooperativity between three copper ions in the oxygen reduction reaction
I25	Jaseer	Iridium-NSiN catalyzed solvent-free hydrosilylation of CO ₂ : experiments and kinetic modeling
I26	Masferrer Rius	Investigation of fluorinated alcohols as solvents for aromatic C-H hydroxylation reactions
I27	Meijer	One-pot Transition Metal Tandem Catalysis
I29	Holtrop	Steric attraction in Frustrated Lewis pair chemistry
I37	De Bruijn	Palladium-catalyzed carbonylation of penteneamides towards ϵ -caprolactam
I43	Dorresteyn	Novel Molecular Approaches for Designing Solar Fuels Photoanodes
I55	Ploeger	Mechanism of Nickel Catalyzed Azobenzene-Ester Coupling
I65	Villalta	Reactivity and Binding Mode of Thiophene with N-Heterocyclic Carbene Iridium Complexes
I74	Van Putten	Structure-Activity Relations in Carbonyl Reduction Catalysis with Mn-X,N-systems (X= C, P, N)
I85	Nolan	Are free NHCs needed to synthesise M-NHC complexes and catalysts?
I87	Al Chami Al Bayrakdar	Dinuclear Gold(I) Complexes Bearing a Bridging Di(N-heterocyclic carbene): Synthesis, Structure and Catalytic Activity in Carboxylative cyclization of propargylic amine
I92	Keijer	Electrochemical Proton Reduction Catalysis in a Protein-Like environment
KNCV		
I5	Laemont	Development of conductive covalent triazine framework composites: metalfree electrodes for the electrocatalytic reduction of carbon dioxide
I22	De Saegher	Molecular level-based study on the formation of aromatics in zeolites starting from polyenes
I48	Helfferich	Cu ₂ -xS nanoparticles for the electrocatalytic reduction of CO ₂
I50	Stam	Bridging the gap between heterogeneous and homogeneous catalysis
I58	Arickx	Determining the Influence of Zeolite Topology on Alkene Cracking Kinetics with Molecular Dynamics Simulations
I77	Bienenmann	A novel stable nickel bisphosphino disilane σ -complex as possible intermediate in catalytic hydrosilylation and silane redistribution
I79	Bossier	POM@COF – Inclusion of POMs in Ionic N-heterocyclic Covalent Organic Frameworks for Tandem Catalysis
I86	Roefs	Dynamic Surface Processes in Cobalt-based Fischer-Tropsch Synthesis
I88	Van Teijlingen	Carbene polymerization via in situ generation of diazo compounds from carbonyl precursors
I100	Modder	Studying the activation mechanism of an Fe(III) complex with redox-active ligands
Photo and Electro Catalysis		
I4	Pannwitz	Creating An Artificial Photosystem in Phospholipid Bilayers
I8	Beine	Carbon nanotube containing polyacrylonitrile materials for the oxygen evolution reaction - influence of active sites, hydrophilicity and conductivity
I11	Thijs	Photocatalytic Oxidation of Graphite for Graphite Oxide Synthesis
I12	Van Dijk	Electrochemical evaluation of molecular iridium complexes for water oxidation
I17	Liu	Metal porphyrin sensitizers and catalysts for homogeneous photocatalytic water oxidation
I21	Klein	Towards unidirectional electron transfer across lipid bilayers for artificial photosynthesis
I35	Mahor	A traffick light enzyme: understanding the red/green color change of Chlorite dismutase
I42	Wijten	Cascading Solar Driven Water Splitting with Catalytic Carbon Dioxide Hydrogenation
I51	Pascuzzi	MnOx-modified mixed rutile TiO ₂ -RuO ₂ as water oxidation electrocatalysts with enhanced activity and stability in acidic media
I56	Blom	How reactor configuration affects reaction conditions and overall conversion in electrochemical processes: a case study for CO ₂ and HCO ₃ ⁻ conversion systems
I63	Van Hal	Photocatalytic soot oxidation: a comparative study of optical detection methods
I75	Brüninghoff	Effect of the Applied Anode during Electrochemical Preparation on Catalytic Properties of TiO _x -Electrodes
I90	Burdyny	Technical feasibility and design of a high current density scalable CO ₂ electrolyzer
I98	Zhang	Evaluating the performance of transition metal phosphide based cathodic electrocatalysts
Renewables – Biomass, Hydrogen		
I9	Beine	Glycol production from biomass - from mechanistic understanding to an applicable catalytic system
I14	Cabrera-Rodriguez	CO ₂ capture from air and utilization: Thermodynamic boundaries during adsorption

I23	Niemeyer	PURAL MG hydrotalcites as heterogeneous solid base catalysts for isomerisation and transesterification reactions
I49	Van Hoecke	The Use of Hydrogen as a clean fuel in the shipping industry
I54	Führer	Pt on activated carbon for carbohydrate oxidation: effect of particle size and support surface chemistry
I64	Masoud	Direct CO ₂ capture from air - What is the best sorbent?
I70	Sharma	Purification of HCl-containing hydrogen streams by adsorption using ion-exchanged zeolites
I94	Xianhong Ouyang	Catalytic valorization of lignin in lignocellulosic biomass to phenolic monomers
Zeolites, cages and MOFS (confined spaces)		
I7	Straß-Eifert	Synthesis of Nanostructured Cobalt@ZSM-5 Core-Shell Particles for the Use as Model Catalyst in the Fischer-Tropsch Process
I13	Verougstraete	CO ₂ thermal swing adsorption using activated carbon honeycomb monoliths
I15	Marquez	Engineered design of multi metal Prussian blue analogues as catalysts for A ₃ coupling and nitroaldol reaction
I24	Reinalda	Activity loss of molecular sieves based adsorbents for natural gas drying
I28	Huertas Osta	Direct preparation of zeolite-templated carbons from methane
I44	Cheng	Nanoscale Intimacy in bifunctional catalysts composed of one-dimensional zeolite and platinum for n-heptane hydroisomerization
I67	Krans	Synthesis and characterization of promoted and un-promoted iron oxide colloids on an H-ZSM-5 for the conversion of synthesis gas to aromatics
I83	Van Vreeswijk	Mechanistic Insights in the Methanol-to-Hydrocarbon Process Using Combined Operando and Advanced Spectroscopic Techniques
I84	De Volder	Stability of catalytic cracking intermediates in modified ZSM-5 zeolites
I93	Vladimir Martis	Water vapor adsorption at low relative pressures at different temperatures and heat of adsorption calculation
I97	Tang	Coordination Polymers Built from Alkaline-Earth Nodes and Pyrazine-2,5-Dicarboxylate Acid
I99	Liu	The effect of pressure on the performance of Mo/ZSM-5 methane dehydroaromatization catalysts

Poster Session II

(Bio) Organic Synthesis, Catalytic methods and Bio-catalysis		
II2	Guarneri	Flavin-dependent hydroxylases accept synthetic nicotinamide cofactors for the synthesis of anti-inflammatory compounds
II15	Gutierrez	An Artificial Heme Enzyme for Abiological Catalysis
II28	Tonin	Follow the flow: continuous production of Ursodeoxycholic acid (UDCA)
II41	Jose Luis Coloma	Immobilization of hydroxynitrile lyases on Celite
II46	Atta	A Hybrid Metabolic System
II63	Alvarenga	Enantioselective Michael addition of water – broadening the biocatalytic toolbox of hydratases
II89	Jia	Ligand-Enabled γ -C(sp ³)-H Acetoxylation of Triflyl-Protected Amines
II91	Zhang	Enzymatic cascade synthesis of new unusual alcohols from renewables
Applied Heterogeneous Catalysis		
II7	Van Noord	Modelling product size distributions during the oxidation of polydisperse starch in porous catalysts
II26	Schuler	Oxalic acid hydrogenation and formate coupling: two steps in a Carbon Capture and Utilization approach from CO ₂ to polymers
II29	Watson	Development of metal organic frameworks and covalent organic frameworks loaded with Ru nanoparticles for CO ₂ methanation
II30	Totarella	Supported Cu-based catalysts for selective hydrogenation
II35	Garcia	Synthesis of Ni / γ -Al ₂ O ₃ catalysts by the sol-gel method for the catalytic reforming of glycerol
II37	Hoekstra	Introducing mesopores in microporous activated carbon by iron catalyzed graphitization for enhanced adsorption capacities
II38	Biemolt	A hierarchically mesoporous N-doped carbon nanorods with large pore volume and high surface area for methylene blue adsorption and electrochemical degradation
II40	De Boed	Early Transition Metals in Catalysis: The Selective Oxidation of Cyclooctene
II42	Galera	Lewis Acid Promoted Trapping of Chiral Aza-enolates
II48	Ge	Lewis acid driven sequential one-pot construction of chiral α -tertiary amines and alcohols via addition to isocyanates
II54	Demetriou	Synthesis of hybrid polymer from levulinic acid and dicyclopentadiene
II66	Deák	Towards primary amines through iridium catalyzed N-alkylation of aqueous ammonia with alcohols
II69	Kuliaev	Theoretical study of the non-linear mechanistic phenomena in liquid phase catalytic processes: a case study of Ru-catalyzed CO ₂ hydrogenation to formates
II76	Postma	Direct non-oxidative coupling of methane over Fe@SiO ₂ , an investigation into the characteristics of the reactor design
II78	Valadian	The effect of carbon deposits in an individual catalyst particle as studied by pore network modeling
II79	Gharaghooshi	Performance evaluation of amphiphilic Pd/ γ -Al ₂ O ₃ catalysts for reduction of nitrite in drinking water using a trickle bed reactor
II80	Su	Quantification of surface charge reveals facet-selectivity of SrTiO ₃ on photo-deposition
II93	Guo	Catalytic Regio- and Enantioselective Alkylation of Conjugated Dienyl Amides
II95	Lin	Single-Atom Catalysis for High-temperature Dry Reforming of Methane
II96	Pour	Zeolites with hierarchical porous structure as catalyst for anisole acylation
II98	Tian	Reaction performance optimization and kinetic modeling of xK-Fe ₃ C@C catalyst in Fischer-Tropsch synthesis to light olefins
Coordination Chemistry		
II13	Marvelous	Redox Interconversion between Cobalt(II) Disulfide and Cobalt(III) Thiolate Complexes
II51	Paredes	Acceptor pi-ligands for the stabilization of Nickel carbenes.
II71	Mondol	The 2-electron reduced formazanate aluminum diphenyl complex: Synthesis, characterization, reactivity studies and comparison with its boron analogues
Fundamental Heterogeneous Catalysis		

II5	Melcherts	Tuning Ni-Support Interactions and C-C Coupling in the Catalytic CO _x Hydrogenation
II16	Rodriguez	CO adsorption on iron carbide thin film supported on Cu(100) as a Fischer-Tropsch synthesis model catalyst
II18	Sharma	Molecular adsorption and dissociation of CO on a defect-rich Co surface
II21	Van Uunen	Growth Behavior of Supported Colloidal Iron Nanoparticles During the Reduction Step for Fischer-Tropsch to Olefins Catalysis
II49	Prabhu	Structural characterization of cobalt sulfide 2D sheets supported on Au(111)
II50	Da Silva	In-situ ATR Spectroscopy CO chemisorption on bio-inspired catalysts in liquid environments
II59	Hakimi	Photocatalytic activity of α -Fe ₂ O ₃ nanoparticles synthesized by thermal decomposition of ofloxacin-iron(II) complex
II62	Pande	Imaging pH gradients using Confocal Laser Scanning Microscopy
II64	Riley	Tuning the space around active sites
Homogeneous Catalysis		
II6	Krieger	Exploring alternative reaction pathways for the efficient hydrogenation of ketones
II8	Guo	Catalytic room-temperature hydration of nitriles using Ru pincer complexes
II9	Klemm	Organocatalysis in water under physiological conditions
II10	Tiddens	A Study Towards the Side-on Coordination of a Phosphine-tethered Aminoborane Motif to a Nickel Center
II17	Vargová	Trapping of chiral enolates derived from conjugate addition of Grignard reagents to unsaturated carboxamides and alkenyl heteroarenes by carbocations.
II36	Nemethova	Applications of borazirconocenes in metal-catalysed reactions
II39	Benschop	Manganese-CN Catalysts for Efficient transfer hydrogenation of ketones
II45	Eijsink	Surface vs bulk: monitoring a radical polymerization by operando IR/Raman/EPR spectroscopy
II52	Lankelma	Co(TPP)-catalyzed formation of substituted piperidines
II72	Hopman	Selective hydrosilylation of unsaturated bonds using a nickel(0) complex supported by a diphosphine benzophenone imine ligand
II73	Geitner	Homogenous „CO-free“ Carbonylation Reactions: A combined Raman, IR and NMR Spectroscopic Study Assisted by DFT Calculations
II75	Epping	Activity vs. Stability: Towards a new highly stable and active tetraaza[14]annulene
II85	Taschinski	Trapping Vinyl Gold (I) Complexes with Electrophiles – From Stoichiometric to Catalytic Transformations
II86	Vanbergen	A systematic approach to alcoholysis of flexible polyurethane foam
II88	Michel	Phenoxy-imine catalyst [(FI)TiCl ₃]/MAO for selective 1-hexene production: exploring reaction side products to identify polymerization active species.
II90	Stroek	Solvent Dependent Magnetic Moment of a Cobalt Complex with a Redox Active Ligand for the Conversion of Amines to Nitrenes
Photo and Electro Catalysis		
II3	Konovalov	Mechanism of Ligand-mediated Electrocatalytic Water Oxidation by a Cu(II)polypyridyl-Type Complex
II24	Van Noordenne	Electroless copper deposition using nitrogen-doped carbon supported core-shell nanoparticle catalysts
II33	Peeters	Photocatalytic self-cleaning coatings with embedded plasmonic gold nanoparticles
II53	Brands	Electrochemical Impedance Spectroscopy of the charge transfer processes in a dye-sensitized photoelectrochemical cell
II55	Rosales	Carbon-supported Cu-based nanoparticles for the electroreduction of CO ₂
II58	Langerman	Electrochemical study of the oxygen reduction reaction by CuTPA
II60	Moradzaman	Effect of CO ₂ partial pressure on electrochemical reduction of CO ₂ on oxide-derived copper electrodes
II61	Worsley	Buried Pt interfaces – influence of the Cr-based protective layers for HOR/HER reactions
II70	Krzywda	Novel electrode preparation for electrochemical N ₂ reduction to NH ₃
II77	Jong	Titanium based porous tube gas diffusion electrodes for the electrochemical oxidation of hydrocarbons
II81	Yang	Cooperative effects between homogeneous catalysts and gold surfaces in the process of OER

II82	Fang	Structuring g-C ₃ N ₄ into a mesoporous material for photocatalytic application
II83	D Agostini	Towards robust molecular iron catalysts for water oxidation
II87	Wissink	Influence of pyridine on the (photo)electrochemical CO ₂ reduction
Renewables – Biomass, Hydrogen		
II11	Vilela	Development of a Bench Scale Catalytic Reactor Based on Indirect Gasification
II14	Lahive	Probing the Mechanism of C-2 Selective Lignin Acidolysis.
II23	Zijlstra	Efficient organosolv extraction of lignin from walnut shells with a well-defined structure
II31	Pipitone	From waste to value: aqueous phase reforming of lignin-HTL by-products
II34	Yang	Transportation fuels and chemicals from recalcitrant biomass sources: Catalytic hydrotreatment of lignin
II44	De Kort	Lithium borohydride-based nanocomposite materials as electrolytes for all-solid-state batteries
II68	Kouris	Catalytic conversion of syringol to higher value products: Unraveling the reaction network
II94	Louven	Efficient Production of Pyrrolidones from Bio-Based Carboxylic Acids
II97	Zhang	Ionic liquids (ILs) assisted valorization of lignocellulose-a focus on lignin
II99	Wang	Comprehensive evaluation of cellulolytic enzyme lignin by combination of ball milled wood lignin and whole cell wall analysis for various wood species
Supramolecular Catalysis		
II47	Metz	Self-assembled nanospheres with high local concentration of Nickel-NHC's
Theory and spectroscopy		
II1	Parastaev	Plasma-catalytic CO ₂ hydrogenation on a Co/CeZrO ₄ catalyst
II12	Lejaegere	Analysis of off-flavor compounds in a recirculating aquaculture system
II22	Fu Fu	Channel Effects of Zeolite ZSM-5 during the Methanol-to-Hydrocarbons Process
II32	Li	Structural evolution of Mo species in Mo/ZSM-5 zeolite by methane activation: a computational study
II43	Hajek	How the connectivity of stable Zr-based MOFs affects the metal coordination and the nature of the active sites
II57	Bocus	First-principles mechanistic study of alkylphenols dealkylation catalyzed by acidic zeolites
II74	Broos	Elucidation of the chain-growth mechanism in the Fischer-Tropsch reaction on iron carbide surfaces
II84	Simko	DFT study of Zeolite-Y stabilization by Lanthanum ions
II92	Ye	Probing the Location and Speciation of Elements in Zeolites with Correlated Atom Probe Tomography and Scanning Transmission X-Ray Microscopy
Zeolites, cages and MOFS (confined spaces)		
II4	Van Hattem	Molecular Simulation of Water Adsorption in Zeolite ZSM-5
II25	Khramenkova	Mapping the reaction landscape for methane oxidation by copper-exchanged zeolites
II27	Maris	Quantitative fluorescence imaging of proton transfer between furfuryl alcohol oligomers and acid sites in zeolite ZSM-5
II65	Nikolopoulos	Impact of Impurities in Waste Mine Tailings-derived Zeolite ZSM-5 as Catalyst for the Methanol-To-Olefins Reaction
II67	Brandt Corstius	Enhanced Ionic Conductivity in Nanoconfined NaBH ₄