Monday: March 6th

10:45		Opening NCCC XVIII (Rotonde) by S. Ottc
11:00	**PL1**	***Prof. Dr. F. Thibault-Starzyk - ENSI Caen, France.* Heterogeneous catalysis: surface reactions investigated by IR (rotonde) - *Chair M Tromp***
11:45	**PL2**	***Prof. Dr. H. Gasteiger - Technical University Munich.* Performance and Durability Challenges for Automotive PEM Fuel Cells (rotonde) - *Chair M Tromp***
12:30		Lunch (12.30-13.45) poster session I with odd serial numbers (Erasmus Lounge)

	Rotonde	Sorbonne 2	Cambridge 32	Cambridge 30
	Chemistry in Flow - Chair M. Odijk	***Supramolecular Catalysis - Chair A. Palmans***	***Applied Heterogeneous Catalysis I - Chair F. Kapteijn***	***Theory & Spectroscopy in Catalysis I - Chair E. A. Pidko***
13:45	**KN1 Sustainable Catalysis - Concepts and Applications**	**KN2 Homogeneous catalysis in confined spaces: Encapsulation strategies and applications**	**O1 The route toward Fe-based Fischer-Tropsch catalysts using MOFs: from fundamentals to industrial performance** *T. A. Wezendonk - TU Delft*	**O2 Gold Particle Size Effect for CO Oxidation: A First-Principles Study** *J. X. Liu - TU Eindhoven*
14:10	*Prof. Dr. M. Rueping - RWTH Aachen University*	*Prof Dr J. Reek - University of Amsterdam*	**O3 In Situ Hydrocracking of Fischer-Tropsch Hydrocarbons: How alpha-Olefins Moderate Overcracking** *N. Duyckaerts - Max-Planck-Institut fuer Kohlenforschung*	**O4 Nanoscale Chemical Imaging of Carbonaceous Deposits in Zeolite H-ZSM-5 Crystals with Secondary Ion Mass Spectrometry** *O. Attila - Utrecht University*
14:35	**O5 A luminescent solar concentrator-based photomicroreactor for energy efficient continuous-flow photocatalysis** *D. Cambie - TU Eindhoven*	**O6 Asymmetric organocatalysis with a bifunctional chiral [2]catenane** *J. Niemeyer- University of Duisburg-Essen*	**O7 Activity enhancement in niobia-supported cobalt Fischer-Tropsch catalysts by reduction-oxidation-reduction treatments** *C. Hernandez - Utrecht University*	**O8 Stabilization of trapped charge carriers in TIO_2 by adsorbed water: a combined time-resolved FTIR spectroscopy and DFT+U study** *A. Litke - TU Eindhoven*
15:00	**O9 Design and characterization of a microreactor for monodisperse catalytic droplet generation at elevated temperatures and pressures** *J. C. Vollenbroek - University of Twente*	**O10 Emergent catalytic properties in a self-replicating system** *J. Ottele - University of Groningen*	**O11 Metal organic framework-mediated synthesis of highly loaded and active Co-based Fischer-Tropsch catalysts** *X. Sun - TU Delft*	**O12 Relationship between Acidity and Catalytic Reactivity of Faujasite Zeolite: A Periodic DFT Study** *C. Liu - TU Eindhoven*
15:25	**O13 Magnetophoresis for Single Fluid Catalytic Cracking Particle Activity Sorting** *M. Solsona - University of Twente*	**O14 Porphyrin-edged $[M4L6]^{8+}$ capsules for cage controlled catalysis** *S.S. Nurttila - Univeristy of Amsterdam*	**O15 Influence of Particle Size Distribution on the Stability of Cu/SiO_2 Catalysts for Methanol Synthesis** *C. E. Pompe - Utrecht University*	**O16 Holistic and High-Productivity Simulations** *X. Rozanska - Materials Design, s.a.r.l.*
15:50	**O17 Single Catalyst Particle Diagnostics: Integrating Catalysis with Optical Spectroscopy Within a Microreactor Device** *A. Nieuwelink - Utrecht University*	**O18 Bio-orthogonal metalloporphyrin catalyzed modification of lantibiotics** *R.V. Maaskant - University of Groningen*	**O19 Methanol conversion to dimethyl ether over γ-Al_2O_3 and ZSM-5. Kinetic study in a gradientless recycle reactor and mechanism evaluation** *C. E. Ortega - TU Eindhoven*	**O20 First principle characterization of active sites on UiO-66 and their role in the catalysis of Fischer esterification** *C. Caratelli - Ghent University*
16:15	Coffee/Tea			
16:30	Poster session I: Posters with odd serial numbers (Erasmus Lounge)			
18:15	Dinner (18.15 - 19.45)			
19:45	Career Development & Opportunities CDO lecture			
20:15	Company Market			

Tuesday: March 7th Morning

8:30	**PL3**	***Prof. Dr. H. Olivier-Bourbigou - IFP Lyon. Which catalyst and technology for more eco-efficient processes in olefin production and transformation (rotonde) - Chair M. A. Fernandez Ibanez***

	Rotonde	Sorbonne 2	Cambridge 32	Cambridge 30
	Fundamental Heterogeneous Catalysis I - Chair P. Van Der Voort	***Theory & Spectroscopy in Catalysis II - Chair M. Tromp***	***Coordination Chemistry I - Chair J. Reek***	***Applied Hetereogenous catalysis II - Chair B. Vogelaar***
9:20	**O21 Oxygen-evolution on well-defined mass-selected NiFe nanoparticles** *B. Sebok - Technical University of Denmark*	**KN3 The inner side of high-valent metal-oxo reactivity**	**O22 Coordination Chemistry of Frustrated Lewis Pairs** *D. H. A. Boom - University of Amsterdam*	**O23 Supported Colloidal Cobalt Nanocrystals as Model Catalysts in Fischer-Tropsch Synthesis** *T.W. Van Deelen - Utrecht University*
9:45	**O24 Removal of polyvinylpyrrolidone from 2-3 nm supported gold nanoparticles**		**O25 Unravelling the mechanism of methanol reforming catalyzed by Ru-PNP pincer complexes**	**O26 Keltan ACE-Technology: Quantitative Structure Activity Relationship (QSAR) for EP(D)M Catalyst Design**

		B. Donoeva - Utrecht University		*Prof. Dr. M. Swart - ICREA, Catalonia, Spain*		*L. Vogt - Leibniz Institute for Catalysis*	*M. Valla - ARLANXEO Netherlands*
10:10	Coffee/Tea (10.10-10.30)						
		Rotonde		Sorbonne 2		Cambridge 32	Cambridge 30
		Fundamental Heterogeneous Catalysis II - Chair K. P. de Jong		***Zeolites I - Chair S. Grecea***		***Coordination Chemistry II - Chair S. Bonnet***	***Renewables & Biomass I - Chair H. Bitter***
10:30	**KN4**	**Real-time scattering tomography of structured catalysts under process conditions**	**O27**	**Fe-containing zeolites for SCR of NOx: effect of structure, synthesis procedure and chemical composition on catalytic performance and stability** *N. Martin - ITQ-UPV*	**O28**	**Understanding Aqueous Proton Transfer in Ruthenium Water Splitting Catalysts** *N. Govindarajan - University of Amsterdam*	**O29** **Bio-butanol dehydration by zeolites: the missing link between classic and bio refinery** *D. Gunst - Ghent University*
10:55		*Prof Dr Andrew Beale, UCL, UK*	**O30**	**Selective reduction of an α,β-unsaturated steroid with Zr-MOFs** *F. Garcia - KU Leuven*	**O31**	**Tuning the activity of [FeFe]-hydrogenase mimics via the second and outer coordination sphere** *E. C. F. Schippers - University of Amsterdam*	**O32** **Ruthenium-Supported Catalysts in the Selective Oxidation of Biomass-Derived 5-Hydroxymethylfurfural** *M. G. Al Shaal - Max-Planck-Institut für Kohlenforschung*
11:20	**O33**	**Immobilization of Zn-Co double metal cyanides on silica as heterogeneous catalysts for intermolecular hydroamination** *C. Marquez - KU Leuven*	**O34**	**Single Site Covalent Triazine Framework Based Monoliths for C1 Catalysis** *A. V. Bavykina - TU Delft*	**O35**	**Towards the development of ligand centered electrocatalysts for hydrogen evalution reaction** *P. Ghosh - Utrecht University*	**O36** **Levulinic acid hydrogenation: On the influence of catalyst synthesis, feed impurities, and process parameters on catalyst stability** *H.C. Genuino - Utrecht University*
11:45	**O37**	**The influence and removability of colloidal capping agents on CO hydrogenation by zirconia-supported Rh nanoparticles** *A. J. F. van Hoof - TU Eindhoven*	**O38**	**Application of MOFs as Heterogeneous Catalysts for Hydrolysis of Peptides** *H. Ly - KU Leuven*	**O39**	**Electrocatalytic Proton Reduction by a Model for [NiFeSe] Hydrogenases** *G. Gezer - Leiden University*	**O40** **Setting up the base for the first lignin biorefinery: From lignin to biofuels and chemicals** *P.D. Kouris - TU Eindhoven*
12:10	Lunch (12.10-13.30) posters session II: posters with even serial numbers (Erasmus Lounge)						
	Tuesday: March7th Afternoon & Evening						
		Rotonde		Sorbonne 2		Cambridge 32	Cambridge 30
		Applied Heterogeneous Catalysis III - Chair F. Kapteijn		***Photo & Electrocatalysis I Chair - B. Mei***		***Homogenous Catalysis I Chair - M. Moret***	***Renewables & Biomass II Chair P.P. Pescarmona***
13:30	**O41**	**Optimization and Integration of Catalytic Porous Structures for CO_2 Methanation** *S. Danaci - CEA, Grenoble & VITO, Belgium*	**KN5**	**Enantioselective Photo-Organocatalysis: Making Chiral Molecules with Light**	**O42**	**Mild and selective base-free C-H arylation of heteroarenes: Experiment and computation** *H. P. L. Gemoets - TU Eindhoven*	**O43** **Mild Oxidative Cleavage of Activated C-O-4 Linkages in Lignin and Lignin Model Compounds** *A. S. Martinez Pascual - Utrecht University*
13:55	**O44**	**Nickel Particle Size Effects in CO_2 Hydrogenation** *C. Vogt - Utrecht University*		*Prof. Dr P. Melchiorre - ICIQ, Spain*	**O45**	**Synthetic Applications of Cobalt(III)-Carbene Radicals** *C. te Grotenhuis - University of Amsterdam*	**O46** **Conversion of fructose-glucose mixtures to 5-hydroxymethylfurfural (HMF) in a biphasic plug-flow microreactor setup** *P. J. Deuss - University of Groningen*
14:20	**O47**	**Regeneration of Mo/HZSM-5 methane dehydroaromatization catalysts** *N. A. Kosinov - TU Eindhoven*	**O48**	**Pinpointing the active species in the electrochemical ORR by [Cu(Hdatrz)]** *B. van Dijk - Leiden University*	**O49**	**Base-free, selective transfer hydrogenation of unsaturated carbonyl compounds using EtOH and i-PrOH as hydrogen sources.** *R. Farrar - LIKAT Rostock*	**O50** **From Model Compounds to Complex Mixtures in Fast Pyrolysis Oil Hydrotreating: A Microkinetic Approach** *D. Otyuskaya - Ghent University*
14:45	**O51**	**Non-oxidative coupling of methane to alkanes by integration of Pd/Alumina catalyst bed at downstream of DBD plasma reactor** *M. Taheraslani - University of Twente*	**O52**	**Towards evaluating reaction kinetics in photocatalytic CO_2 reduction: Influence of CO2 partial pressure and light intensity** *J. Strunk - LIKAT Rostock*	**O53**	**Oxygen activated ultra-fast palladium nanoparticle catalyzed cross-coupling of organolithium reagents: a mechanistic insight** *F. Tosi - University of Groningen*	**O54** **Selective conversion of glycerol into methyl lactate catalyzed by supported gold nanoparticles and solid Lewis acids** *Z. Tang - University of Groningen*
15:10	Coffee/Tea (15.10-15.30)						
15:30	**PL4**	***Prof. Dr. C. Campbell -University of Washington*** . **Fundamental approaches to understanding transition metal catalysts: toward improved catalyst design (rotonde) - Chair K. P. de Jong**					
		Rotonde		Sorbonne 2		Cambridge 32	Cambridge 30

	Renewables & Biomass III Chair - P.P. Pescarmona	*Photo & Electrocatalysis II Chair - D. Hetterscheid*	*Zeolites II - Chair M. Rigutto*	*Fundamental Heterogeneous Catalysis III - Chair P. Van Der Voort*
16:20	KN6 **New strategies for the conversion of lignin: from model studies towards application** *Dr K. Barta - University of Groningen*	O55 **Cathodic, but not protected: catalyst degradation by cathodic corrosion** *T. J. P. Hersbach - Leiden University*	O56 **The interplay of Lewis and Brønsted acid sites in the catalytic performance of ZSM-5 in the Methanol-to-Olefins reaction.** *I. Yarulina - Delft University*	O57 **Active sites engineering in UiO-66 and their application in catalysis** *J. Hajek - Ghent University*
16:45		O58 **Establishing the activity-selectivity tradeoff of photocatalytic materials by multi-aspect electronic and morphological characterization** *M. Keulemans - University of Antwerp*	O59 **A one-step synthesis of mesoporous vanadia-titania and its application in the catalytic oxidation of ethyl lactate** *W. Zhang - University of Amsterdam*	O60 **Fabrication of Highly b-Oriented Aluminosilicate MFI Films with a Broad Range of Si/Al Ratios** *D. Fu - Utrecht University*
17:10-17:35	O61 **Direct Synthesis of an Iridium(III) Bipyridine Metal Organic Framework as a Heterogeneous Catalyst for Aerobic Alcohol Oxidation** *K. Leus - Ghent University*	O62 **Facile two-step synthesis of delafossite $CuFeO_2$ photocathodes for water splitting** *I. Garcia-Torregrosa - Utrecht University*	O63 **Shape selectivity effects on the hydroconversion of n-hexadecane** *D. E. Romero - TU Eindhoven*	O64 **Stability of catalyst supports in liquid phase Transmission Electron Microscopy** *M. J. Meijerink - Utrecht University*
18:00-19:00	Poster session II: Posters with even serial numbers (Erasmus Lounge)			Dutch Catalysis Society Annual Meeting

Wednesday: March 8th Morning

	Rotonde	Sorbonne 2	Cambridge 32	Cambridge 30
	Applied Heterogeneous Catalysis IV - Chair B. Vogelaar	*(Bio) Organic Synthesis, Catalytic methods and Bio-catalysis I - Chair F Hollmann*	*Theory & Spectroscopy in Catalysis III - Chair M. Tromp*	*Homogenous Catalysis II Chair - E. Ruijter*
9:00	O65 **Highly selective and reactive reduction of NO over ceria based catalyst** *Y. Wang - TU Delft*	O66 **Toward continuous biocatalytic production of chiral cyanohydrins using immobilized enzymes on mesostructured cellular foams** *M. P. van der Helm- TU Delft*	O67 **(Micro-)Spectroscopic Study of the (De)activation of Shaped Catalyst Particles used in Bio-oil Upgrading at the Pilot Plant Scale** *A. M. Hernandez Gimenez - Utrecht University*	O68 **A New Class of S,O-Bidentate Ligands for Palladium Catalyzed C-H Functionalization of Simple Arenes** *K. Naksomboon - University of Amsterdam*
9:25	O69 **Catalytic dehydrogenation of propane on Pt-based catalysts: the positive effect of Ga-promoting** *S. Saerens- Ghent University*	O70 **New routes for the selective C-H hydroxylation of aliphatic compounds.** *M. Janssen - KU Leuven*	O71 **Mechanisms in long chain hydrocarbon formation over Hägg carbide** *R. J. P. Broos - TU Eindhoven*	O72 **Highly enantioselective catalytic synthesis of chiral pyridines** *R. P. Jumde - University of Groningen*
9:50	O73 **Ammonia synthesis from hydrogen and nitrogen via chemical looping using non-thermal, atmospheric plasma catalysis** *R. S. Postma - University of Twente*	O74 **Catalytic asymmetric synthesis of chiral β-substituted amides enabled by Lewis Acid activation of enamides** *M. C. Rodriguez Fernandez - University of Groningen*	O75 **Hydrogen spillover observed by single particle spectromicroscopy on nanofabricated model system** *J. Bokhoven - ETH Zurich/ Paul Scherrer Institute*	O76 **Catalytic N-functionalization of unprotected amino acids with alcohols** *T. Yan - University of Groningen*
10:15	Coffee/tea (10.15-10.40)			

	Rotonde	Sorbonne 2	Cambridge 32	Cambridge 30
	Fundamental Heterogeneous Catalysis IV - Chair K. P. de Jong	*(Bio) Organic Synthesis, Catalytic methods and Bio-catalysis II - Chair M. A. FernandezIbanez*	*Theory & Spectroscopy in Catalysis IV - Chair E. A. Pidko*	*Photo & Electrocatalysis III Chair - B. Mei*
10:40	O97 **Linking Reactivity to Structure in a Fluid Catalytic Cracking Catalyst** *F.C. Hendriks - Utrecht University*	KN7 **Stereoselective synthesis & catalysis with reactive metal carbenes**	O77 **The effect of water-water interactions on ZSM-5 dealumination** *K. Stanciakova - Utrecht University*	O78 **Enhanced Photo-response of FeS2 Films: The Role of Marcasite-Pyrite Phase Junctions** *L. Wu - TU Eindhoven*

11:05	**O98**	**Effect of initial nickel particle size on the stability of nickel catalysts** *T. van Haasterecht - Wageningen University*		*Prof Dr Jerome Lacour - University of Geneva*	**O79**	**Exploring the nature and reactivity of alkene cracking intermediates in H-ZSM-5 with molecular simulations** *P. Cnudde - Ghent University*	**O80**	**An in-situ ATR-FTIR study of the electrocatalytic reduction of CO_2 to CO on a silver catalyst** *N. J. Firet - TU Delft*
11:30	**O81**	**Insights into the Deactivation of Single Fluid Catalytic Cracking Catalyst Particles by High Resolution X-ray Ptychographic Imaging** *S. Kalirai - Utrecht University*	**O82**	**Biocatalytic Oxyfunctionalization Reactions Driven by Photochemical Water Oxidation** *W. Zhang - TU Delft*	**O83**	**Entropy effects in zeolite catalysis for bio-derived aromatics production** *R. Rohling - TU Eindhoven*	**O84**	**The importance of Cannizzaro-type reactions for the Electrocatalytic Reduction of Carbon dioxide** *Y. Birdja - Leiden University*
11:55	**O85**	**Geometry of Molybdenum Oxide in HZSM-5 Does Not Influence Its Activity for the Aromatization of Methane** *I. Volmer - TU Delft*	**O86**	**Selective C-H activation in methyl alpha-glucose using photoredox catalysis** *I. C. Wan - University of Groningen*	**O87**	**Probing Coked Zeolite Catalysts in 3D at the Atomic Scale with Atom Probe Tomography** *J. E. Schmidt - Utrecht University*	**O88**	**Establishing a General Concept for Red Shift Phenomena in Protonated Aromatic Compounds** *J. M. Boereboom - Utrecht University*
12:20		Lunch (12.20-13.30)						
Wednesday: March 8th Afternoon								
		Rotonde		Sorbonne 2		Cambridge 32		Cambridge 30
		Fundamental Heterogeneous Catalysis V - Chair P. Van Der Voort		***Zeolites III - Chair S. Grecea***		***Coordination Chemistry III - Chair S. Bonnet***		***Renewables & Biomass IV Chair - H. Bitter***
13:30	**O89**	**In Situ TEM observation of the Boudouard reaction: Multi-layered graphene formation from Co on cobalt nanoparticles at atmospheric pressure** *G. M. Bremmer - Leiden University*	**O90**	**Methane oxidation catalysed by diiron-complex deposited on ZSM-5 zeolite** *A. Szecsenyi - TU Delft*	**O91**	**Synthesis and Reactivity of Nickel Complexes bearing a cooperative Diphosphine Ketone ligand** *A. F. Orsino - Utrecht University*	**O92**	**Catalysis for biorefineries - Industrial requirements** *J. P. Lange - Shell*
13:55-14:20	**O93**	**Curved single crystals as tools to study structure dependencies in heterogeneous catalysis and gas-surface reaction dynamics** *L. Juurlink - Leiden University*	**O94**	**Immobilisation of an Iridium(I) complex onto a covalent triazine framework towards an efficient and recyclable catalyst for C-H borylation** *N. Tahir - Ghent University*	**O95**	**Difluorocarbene transfer to an alkene by a cobalt complex** *M. Goswami - University of Amsterdam*	**O96**	**Noble metal catalysts for the depolymerization of Kraft lignin using a solvent-free approach** *I. Hita - University of Groningen*
14:25	**PL5**	***Prof. Dr. D. Hilvert - ETH Zurich.*** **Nearer to nature: design and optimization of artificial enzymes (rotonde) Chair - G. Roelfes**						
15:10	Closing session and lecture + poster awards (Rotonde) - S. Otto							