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Monday: March 2nd				
10:45	Opening NCCC XXVII by A. Urakawa and C. Paul			
11:00	PL1 Selin Kara - Aarhus University & Leibniz University Hannover - Intensification of chemo-enzymatic processes towards industrial volumetric productivities			
11:45	PL2 Charlotte Williams - U Oxford - Catalysis for the circular economy: understanding and predicting performances in polymerizations and depolymerizations			
12:30	Lunch break			
13:30	01 CO ₂ hydrogenation on CeO ₂ nanorods-supported Fe-Co electrocatalysts in Protonic Ceramic Cell Reactors <i>E. Marousiadou - University of Groningen</i>	02 Stabilization of Cu species in UiO-66 metal-organic framework for CO ₂ -to-methanol: insights from in situ X-ray studies and electron microscopy <i>A. Liutkova - Paul Scherrer Institute (PSI)</i>	03 New Metastable Furan-Based Surfactants Designed for End-of-Life: Synthesis, Physicochemical Properties and Degradation <i>M.M. Broekman - Utrecht University</i>	04 The Mechanism of CO ₂ conversion over a Ru-K ₂ CO ₃ Dual Functional Material through operando quick-EXAFS <i>F. Karaçoban - Wageningen University and Research Centre</i>
13:50	05 Engineering Porous Transport Layers for Efficient Co-Electrolysis of Glucose and Water <i>D. Zagoraios - DIFFER</i>	06 Flame spray pyrolysis synthesis of NiO-Ga ₂ O ₃ : The role of metal alloy and oxide interfaces in CO ₂ hydrogenation to methanol <i>M.A. Attallah - Eindhoven University of Technology</i>	07 Sustainable Paracetamol Production: Enzymatic Oxyfunctionalisation at Kilogram Scale <i>J.M.A. Hengst - Delft University of Technology</i>	08 X-ray absorption spectroscopy applications on a multi-purpose laboratory X-ray diffractometer <i>L. Ding - Malvern Panalytical B. V.</i>
14:10	09 The Key Role of Electrocatalysis in the Development of Efficient and Stable Fuel Flexible Protonic Ceramic Cells with Biogas Feedstocks <i>H. Zheng - University of Groningen</i>	010 It's Not That Deep - Mapping Accessible Surface States of Ni-Ga Catalysts under CO ₂ Hydrogenation <i>M.S. Baidun - Delft University of Technology</i>	011 Biocatalytic chiral amine synthesis coupled with in-situ chemo-catalytic substrate production <i>A. Doutry - UCLouvain</i>	012 Operando Multi-spectroscopy Approach Identifies the Fe ²⁺ /Fe ³⁺ Couple Responsible for N ₂ O-Redox-Mediated Reactions in Fe-Zeolites <i>D.C. Cano Blanco - PSI/EPFL</i>
14:30	013 Structure Sensitivity of the Double-Layer Properties of a Platinum Electrode <i>N.L. Fröhlich - Leiden University</i>	014 Linking structure to activity in ZnZrOx catalyst for CO ₂ hydrogenation to methanol: the influence of preparation methods <i>M. Firmansyah - University of Groningen</i>	015 Hydrogen-driven enzymatic production of (S)-citronellol <i>T.J. van t Riet - Delft University of Technology</i>	016 Investigating the Radical Stabilization via Paramagnetic Zr ³⁺ <i>L. Seidling - Utrecht University</i>
14:50	Coffee break			
15:10	017 Ru-Catalyzed Transfer Vinylation of Alcohols <i>S. Tin - Leibniz Institute for Catalysis, 18059, Rostock, Germany</i>	018 Enhancing higher alcohol synthesis by using mixed solid catalysts <i>P. Diehl - Ruhr University Bochum</i>	019 Multiscale Impact of Electrolyte Saturation and Transport in Nanoporous Copper Catalyst Layers during CO ₂ Reduction <i>D. Choukroun - University of Antwerp</i>	020 Sulfur-Induced Electronic States in Anatase Titania Extend Charge Carrier Lifetime <i>C. Geci - University of Maine</i>

15:30	O21 Conversion of pyrolytic sugars to 5-hydroxymethylfurfural promoted by choline chloride in biphasic systems over homogeneous Lewis catalysts <i>C Ruan - University of Groningen</i>	O22 Hydroprocessing of tree bark-derived sterols into sustainable aviation fuels <i>N.F. Zuidema - Eindhoven University of Technology</i>	O23 Investigating Single-Crystal Pt(111) at Low Potentials Using Advanced Transient Voltammetry <i>R.Z. Snitkoff-Sol - Leiden University</i>	O24 Charge Carriers Dynamics of Ru/TiO ₂ : The Importance of Holes in Photothermal CO ₂ Reduction on Ru/TiO ₂ <i>A. Meena - University of Twente</i>
15:50	Workshop: Measuring adsorbate profiles in catalytic reactors by iso-potential operando DRIFTS - Bruker & REACNOSTICS - R. Horn (TUHH)	Workshop: (A) Next generation meso-macropore analysis - Anton Paar - M. Thomas	Workshop: Work on methanation and steam methane reforming, data acquisition and kinetic modeling - Hiden Analytical - J. De Wilde (UC Louvain)	Workshop: Advanced GC Technologies for Catalyst and Biofuel Analytical Challenges - Shimadzu - E. Shimbo
16:10	Workshop: Advanced FTIR solutions for catalysis studies - Bruker - X. Stammer	Workshop: (B) In-situ pore structure and chemisorption analysis of catalysts - Anton Paar - M. Thomas	Workshop: Autonomous kinetic model development for heterogeneous catalytic reactions - AI-based calculation from reactor profiles and DRIFTS - REACNOSTICS - S. Jakobtorweihen	Workshop: Metal Organic Framework (MOF), Silica Alumina (Zeolites), Precious Metal- (supported and homogeneous), Mixed Metal Oxide-, Skeletal Nickel-, catalyst and their applications - Neocat & CatOlyst - P. Vadalia & J. Groen
16:30 - 18:30	Poster session A			
17:00 - 17:45	Parallel Career development workshop - J. Campos (Coaching and counselling) - Cambridge 30			
18:30	Dinner			
20:15	CDO session			

Tuesday: March 3rd

09:00	PL3 Frank Glorius - U. Münster - On data, discovery & sensitivity in (photo)catalysis			
09:50	KN1 Chris Slootweg - UvA - Catalysing a sustainable future: radical redesign of chemistry for circularity	O25 Photoredox Entatic Catalysis in Porous Materials <i>M. Di Berto Mancini - University of Amsterdam</i>	O26 The Mechanism of CO ₂ Electroreduction in Acetonitrile-based Electrolytes: An In Situ IR Study <i>A. Berghuis - University of Twente</i>	O27 Nanoscale strain-engineering for modulating oxidation and hydrogenation catalysis <i>J.P. Jonasse - Utrecht University</i>
10:10		O28 Two Routes, One Vision: Inorganic–Organic Materials Engineering for High-Performance Visible-Light Photochemical Systems <i>MR Ashu Abey - University of Bath</i>	O29 Nature of the Pb surface during CO ₂ reduction in N,N-Dimethylformamide <i>J.P. Smaak - Leiden University</i>	O30 Regulating Dynamic Coordination Environments in Pt ₁ /CeO ₂ Single-Atom Catalysts <i>Q. Gu - Eindhoven University of Technology</i>
10:30	Coffee break			
10:50	KN2 Clemens Mayer - RUG - Harnessing evolution to break PFAS: engineering next-generation	O31 Catalysis in Ball Mills: Mechanochemistry as an Alternative Synthesis Strategy	O32 Formate selective CO ₂ reduction in water promoted by triethanolamine using immobilized Mn(bpy)	O33 Atomic-level investigation of TM and Ln co-doping effects on Pd/CeO ₂ single-atom catalysts for CO oxidation <i>M. Li - Eindhoven University of</i>

	defluorinases	<i>M. Wohlgemuth – Ruhr-University Bochum</i>	catalyst <i>M.C. van Rijn – University of Amsterdam</i>	<i>Technology</i>
11:10		034 Accounting for the Footprints of Bulky Molecules in Multi-site Kinetic Models <i>A. Fischer – Ghent University</i>	035 Active Site Determination of Heterogenized Molecular Electrocatalysts <i>E. Antoniono – Delft University of Technology</i>	036 Rapid Analysis of Uncondensed Lignin Feedstocks and Reductive Catalytic Depolymerization Products with ATR-FTIR and Chemometrics <i>T. Dezaire – Utrecht University</i>
11:30	037 Photobiocatalytic atroposelective biaryl coupling <i>B. Dačević – University of Groningen</i>	038 Understanding Hydrodynamics in a Circulating Fluidised Bed Reactor for Integrated Carbon Capture and Utilisation: A Computational and Experimental Study <i>M.R.A. Coppens – Delft University of Technology</i>	039 Tuning Product Selectivity in Electroreduction of NO via Phase Engineering of MoS ₂ Nanosheets <i>M. Li – Delft University of Technology</i>	040 CO ₂ methanation over nickel: a kinetic balancing act between CO ₂ and CO activation <i>K.T. Rommens – Ghent University</i>
11:50	041 Tuning Old Yellow Enzymes for desaturation via non-canonical amino acids <i>T. Greven – Delft University of Technology</i>	042 Blue Scientific/Renishaw - A. King - Workshop: Study catalysis with Raman spectroscopy	043 Tuning MoS ₂ electrocatalyst's nanostructures and HER performances by optimizing the reduction treatments <i>M. Pouilly – IFPEN</i>	044 Active sites in MAPO-18 zeotypes for CO ₂ hydrogenation: a NMR study <i>W. Temmerman – Ghent University</i>
12:10	Lunch break			
13:10	045 Elucidating the reaction mechanism of CO _x hydrogenation using ¹² C/ ¹³ C and ¹ H/ ² H isotope fractionation <i>M. Verstraten – Eindhoven University of Technology</i>	046 Impact of catalyst layer architectures on a zero-gap CO ₂ electrolyzer towards multi-carbon products <i>F.M.B. Gusmão – University of Antwerp</i>	047 From Molecules to Reactors: Modeling the Hydrogenolysis of Polyolefins <i>S. Bissesar – University of Twente</i>	048 Exploring H ₂ O ₂ – dependent inactivation of rAaeUPO <i>A. Pothuizen – Delft University of Technology</i>
13:30	049 Unprecedented CO ₂ reduction activity through in situ self-assembly of Ru-CeO _x heterostructures <i>D. Vico van Berkel – Delft University of Technology</i>	050 Investigation of Water Management in MEA Cells for CO ₂ Electrolysis to Prolong System Lifetime <i>H.M. Pelzer – Delft University of Technology</i>	051 AI-Driven Electrocatalysis: Adaptive Control of the Glycerol Oxidation Reaction via Reinforcement Learning <i>V.A. Mints – Imperial College London</i>	052 Force feeding PaDa-I: a hybrid nest for selective chemo-enzymatic oxyfunctionalization <i>M. Kinnaer – UCLouvain</i>
13:50	KN3 Jingxiu Xie - RUG - Thermocatalytic CO ₂ conversion to chemicals and fuels via Fischer-Tropsch synthesis	053 Polymer Membrane Gas-Diffusion Layer with Nanowire Catalyst Implemented in Zero-Gap CO ₂ Electrolyzer Prevents Salt Precipitation-Induced Failure <i>R. Haaring – Korea Advanced Institute of Science and Technology</i>	054 Dynamically correct reaction rate constants in heterogeneous catalysis <i>M. Bocus – Ghent University</i>	055 Exploring the biocatalytic reduction of alkynes to alkenes using the Old Yellow Enzyme family <i>C. Ferrer Carbonell – Delft University of Technology</i>
14:10		056 Scaling Up Membrane Electrode Assembly Electrolyzers for CO ₂ Conversion:	057 The Stability of Single-Atom Catalysts <i>A.N. van Dam – VU University Amsterdam</i>	058 Bulky alkene reduction catalyzed by ene reductases <i>J. Berger – Delft University of Technology</i>

		Strategies to Mitigate Salt Deposition <i>L. Gatti - Italian Institute of Technology</i>		
14:30	O59 Understanding Structure-activity Relationship over Al-Fe based Catalysts for CO and CO ₂ Hydrogenation <i>Y. Fan - Eindhoven University of Technology</i>	O60 Understanding and Mitigating SO ₂ -induced Deactivation of Ag Electrocatalysts during CO ₂ Electrolysis <i>S Fu - Delft University of Technology</i>	O61 Multiscale Computational Insights into Thermal and Catalytic Pyrolysis of Polyolefins <i>F. Xu - Utrecht University</i>	O62 Exploring dehydrogenases for redox catalysis with the noncanonical cofactor NMN - N. Travnicek - Delft University of Technology
14:50	Coffee break			
15:10	O63 Kinetics of mechano-catalytic polypropylene depolymerization for recycling: Effects of surface-activated beads and mill geometry. <i>L. Delarue - Utrecht University</i>	O64 Electrolyte-dependent behavior of a cobalt-based MOF during the glycerol oxidation reaction <i>F.J.A van Lieshout - University of Groningen</i>	O65 The Circle of Life: A Catalyst's Story Revealed through Kinetics and Dynamic NMR <i>S. Yassiri - Delft University of Technology</i>	O66 Tuning porosity in 3D-printed Ni/TiO ₂ catalysts for enhanced CO ₂ methanation efficiency <i>J. Cazemier - VITO NV</i>
15:30	KN4 Maarten Roeffaers - KU Leuven - Illuminating microplastics: chemical, optical and materials approaches to a growing challenge	O67 Graphene-Covered Pt(111): A Tunable, CO-Tolerant Hydrogen Oxidation Catalyst <i>K Boterman - Leiden University</i>	O68 Strategies for homogeneous thermal hydrogenation of CO ₂ to methanol <i>G. Gherardini - University of Amsterdam</i>	O69 Tuning active Ni particle size with dopants enhances carbon yield in catalytic methane pyrolysis <i>D.P.C. van Eck - Utrecht University</i>
15:50		O70 On the pH-Dependent Role of Oxygen Functional Groups in Carbon Catalysts for Electrochemical H ₂ O ₂ Production <i>P. Mazaira Couce - Wageningen University and Research Centre</i>	O71 Fluoroalkoxy ligands: Neither too much, Nor too little Fluorine Optimizes Ligand Fields <i>F.J. de Zwart - ETH Zürich</i>	O72 Bismuth-Regulated Metal-Support Redox: Preventing Over-Oxidation in Pd Catalysts for Lean Methane Oxidation <i>JHB Pouw - University of Twente</i>
16:10 - 18:10	Poster session B			
17:00 - 17:45	Parallel Career development workshop - J. Campos (Coaching and counselling) - Cambridge 30			
18:10	Dinner			
21:00	Bowling tournament NIOK NPP			

Wednesday: March 4th

09:00	PL4 Hirohito Hirata - Toyota Motor Corporation - Progress and future of automotive exhaust gas purification catalysts: mutual utilization of materials data for exploring material application			
09:50	O73 PEM fuel cell catalyst layer performance starts in solution - J. Homan - Delft University of Technology	O74 Mesoporous titanasilicate-silica-coated magnetic ferrite core-shell catalysts for the epoxidation of limonene	O75 The Origin of the Constant Phase Element Behaviour of Pt(111) Near the Potential of Zero Charge <i>K.J. Levey - Leiden</i>	O76 Catalytic conversion of CO ₂ and bio-based compounds into renewable polycarbonates <i>H. Moradi - University of Groningen</i>

		<i>A.B. Lozada Miniguano - Université catholique de Louvain</i>	<i>University</i>	
10:10	077 Microwave-assisted batch and continuous flow process for the sustainable synthesis of the water electrolysis anode materials <i>I.A. Khan - SDU</i>	078 Unraveling the synergistic effect of alcohol and water in lignin transfer hydrogenolysis <i>J Chen - University of Groningen</i>	079 The Inherent Voltage Penalties of Emerging Electrochemical Reactions in near-neutral pH conditions <i>G. Prats Vergel - Delft University of Technology</i>	080 Catalytic Cascade Strategies for Transforming CO ₂ into High-Value Products via Formaldehyde equivalents <i>W. Vande Capelle - Katholieke Universiteit Leuven</i>
10:30	Coffee break			
10:50	KN5 Tom Burdyny - TUD - How extreme gradients govern the performance and stability of electrocatalysis	081 Structural Dynamics of Lacunary Polyoxometalate Activated with H ₂ O ₂ Elucidated by in situ ATR-IR and atomistic simulations <i>T. Iwano - Delft University of Technology</i>	082 Sn(oct) ₂ -mediated mechano-catalytic PLA depolymerization <i>F. Mattarozzi - Utrecht University</i>	083 Unusual synthesis approach for core-shell cocatalysts, resulting in enhanced photocatalytic activity of SrTiO ₃ during gas phase methanol dehydrogenation. <i>Y. Haver - Ruhr-Universität Bochum</i>
11:10		084 Ultrafast Probing of Heat-Induced Chemistry on Metal Nanoparticles <i>B. Yilmaz - Delft University of Technology</i>	085 Quantifying Internal Transport in Plastic Hydrogenolysis and Overcoming It through Innovative Catalyst Architecture <i>P. Venugopal - University of Twente</i>	086 Synergistic optimisation of photocatalytic hydrogen production based on experimental design and Bayesian optimisation <i>J. Pöttker-Menke - Ruhr-Universität Bochum</i>
11:30	087 Co ₉ S ₈ /Ni Precursor for Efficient Conversion of Complex Carbohydrate Mixtures Derived from Ethanosolv Fractionation <i>C. Jiang - University of Groningen</i>	088 Accelerated Hydrogen Evolution at Polymer-Functionalized Gold - A Kinetic or a Local pH Effect? <i>S. Hardt - Leiden University</i>	089 Effect of Molybdenum on the Performance of Ni/SiO ₂ Catalysts for Polyolefin Hydrogenolysis <i>X Huang - University of Groningen</i>	090 Lucigenin: A Strongly Oxidizing Dicationic Photocatalyst for the Direct Azolation of Arenes <i>A. Matei - University of Groningen</i>
11:50	091 Surface Electrochemistry of Au(111) and Pt(111) in Non-Aqueous Electrolytes <i>GP Grossman - Leiden University</i>	092 Poly(vinyl alcohol)/chitosan hydrogel microneedles for transdermal delivery of Mitragyna speciosa crude extracts: fabrication, release behavior, and antibacterial activity <i>A. Panchuchird - Department of Chemistry, Faculty of Science, Silpakorn University</i>	093 Radical Initiated Polymer Degradation to Enhance Polypropylene Recyclability <i>RB Maas - Utrecht University</i>	094 Workshop: Chemspeed - J. de Keijzer - Turning Processes into Automation for High-Speed Innovation
12:10	Lunch break			
13:00	KN6 Max Voß - RWE - Towards net zero: decarbonizing flexible power generation	095 Hydrothermally stable catalysts for the one-pot conversion of cellulose to ethylene glycol <i>A.L. Slama de Freitas - University of Groningen</i>	096 Optimizing nickel anode regeneration strategies for alkaline water electrolysis <i>N. Cucu - University of Groningen</i>	097 Partially Ammonium-Substituted Phosphotungstic Acid as a Catalyst for Efficient Methanolation of Toluene into Xylenes <i>N. Laloux - Université Catholique de Louvain</i>

13:20		O98 Carbide fraction effect of molybdenum carbide catalysts on furfural reductive amination <i>Y. Ding - Wageningen University and Research Centre</i>	O99 Effect of Fe Impurities on the Surface Structure of Ni-based Electrodes <i>M. Hage - University of Amsterdam</i>	O100 The Phosgene-Free Synthesis of Isocyanates Through The Dehydrogenation of Formamides <i>E. Daenens - Katholieke Universiteit Leuven</i>
13:40	O101 Mitigating CO poisoning of platinum electrodes for efficient electrochemical hydrogen oxidation in hydrogen compression applications <i>C. Englezos - University of Twente</i>	O102 Mechanistic insights in the selective catalytic oxidation of glycolaldehyde: an industrially feasible route to bio-glycolic acid <i>M. Heshmat - Wageningen University and Research Centre</i>	O103 Advancing Alkaline Water Electrolysis with Stable Raney Nickel Coatings for High Current Density Operation <i>H.Y. Chen - Eindhoven University of Technology</i>	O104 Upcycling Polyethylene to C12-C18 Olefins via Isomerizing Ethenolysis <i>A.A. Tsygankov - Delft University of Technology</i>
14:05	PL5 Pelayo García de Arquer - ICFO - Beyond static approaches to control electrolysis interfaces			
14:50	Prizes & Closure			
15:15	Buses to Leiden Central Station			