2022 chains
CHemistry As INnovating Science

119 Ah! The element of surprise

CHEMICAL CONVERSION
CHEMISTRY OF MATERIALS
FUNDAMENTAL AND METHODS OF CHEMISTRY
CHEMISTRY OF LIFE

PRE-PROGRAMME FOR GROUP LEADERS TUESDAY 20 SEPTEMBER 2022

17:30h – 21:00h **Group leader event**: dinner, interaction and discussion. Organized by the Round Table Chemistry and NWO

PROGRAMME WEDNESDAY 21 SEPTEMBER 2022 – Chairman Ferdinand Grozema (TUD, chair programme committee)

08:30h – 10:00h REGISTRATION__ TEA & COFFEE

10:00h – 10:15h **Opening and Welcome by NWO** @Beneluxzaal

10:15h – 11:00h Plenary Lecture @Beneluxzaal **ROBERT SCHLÖGL__ Max Planck Institute** **Title:** Safe and sustainable energy is the largest application of catalytic chemistry

11:00h – 11:30h Element of surprise by the KNCV @Beneluxzaal **Announcement and lecture KNCV Gold Medal 2022 winner**

11:30h – 11:50h BREAK__ VISIT SPONSORS __ NETWORKING @THE PLAZA

11:50h – 12:20h

Sylvestre Bonnet (LEI)
Transmembrane photoelectron transfer: surprises for artificial photosynthesis
Chair: Tati Fernández Ibáñez (UvA)
Room: Parkzaal

Henk Bolink (Univ. of Valencia)
Vapor phase deposited perovskite solar cells
Chair: Loredana Protesescu (RUG)
Room: Brabantzaal

Francesca Grisoni (TUE)
Harnessing artificial intelligence for de novo drug design
Chair: Harry Bitter (WUR)
Room: Auditorium

Luc Brunsveld (TUE)
Supramolecular Chemical Biology – Where weak interactions become strong
Chair: Kimberly Bonger (RU)
Room: Beneluxzaal

12:20h – 13:20h LUNCH @THE PLAZA

13:20h – 14:05h INTERDISCIPLINARY FOCUS SESSIONS

RNA: from fundamental insights to therapeutic applications
Chair: Roy van der Meel (TUE)
Speakers: Wim Velema (RU), Pieter Vader (UUMC)
Room: Brabantzaal

Dutch user organisation for accelerator-based light source: Kick-off
Chair: Elias Vlieg (RU)
Speakers: F. Martinez-Criado (ESRF), Moniek Tromp (RUG), Britta Redlich (RU)
Room: Beneluxzaal

Water-based dynamic covalent chemistries: molecules, techniques, materials
Chair: Julieta Paez (UT), Rienk Eelkma (TUD)
Speakers: Sophie Beeren (TU Denmark), Hagan Bayley (Univ. of Oxford), Rienk Eelkma (TUD)
Room: Auditorium

Sensing catalytic reactions with light: chemistry meets physics
Chair: Esther Alarcon Llado (AMOLF), Eline Hutter (UU)
Speakers: Atsushi Urakawa (TUD), Charuseela Ramanan (VU), Freddy Rabouw (UU), Andrea Baldi (VU)
Room: Room 63/64

ChemistryNL: Sensing and digitalization for a sustainable chemical industry
Chair: Henk-Jan van Manen (Nouryon)
Speakers: Jeroen Jansen (RU), Martijn Fransen (Malvern Panalytical & MinacNed)
Room: Parkzaal

14:10h – 15:10h

CATALYST DESIGN
Chair: Sonja Pullen (UvA)
Room: Brabantzaal
Yunfei Guo (TUE)
Cyclotrimerization mechanism using acetate anions as catalyst
Roel Bienenmann (UU)
A dicopper(I)-hydride complex that reacts like a cluster
Fanshi Li (UU)
Improved oxidation catalysis through ligand deuteration and sterics
Suzanne Assen (LEI)
Axiomatic Design of Solar to Ethylene Conversion

CATALYSIS & SPECTROSCOPY
Chair: M. van der Veen (TUD)
Room: Auditorium
Ruipeng Luo (RU)
NMR study of electrochemical lithium-mediated ammonia synthesis
Diyu Zhang (LEI)
RAIRS characterization of CO+O coadsorption on copper
Francesco Verdelli (TUE)
Vibrational strong coupling with periodic particle arrays
Laura Barberis (UU)
On the nature of ZnOx and MnOx promotion

FUNCTIONAL POLYMERIC MATERIALS
Chair: Roel Dullens (RU)
Room: 65
Wouter van den Akker (TUE)
Transient permeability switch of polymeric self-adaptive nanoreactors
Annemieke van Dam (WUR)
Self-healing (non)-fluorinated antifouling polymer brushes
Neshat Moslehi (UU): *Super-cooperativity in binding of iron onto terpyridine-functionalized polymers*
Diederik van Luijk (TUE)
Exploring catch bonds in mechano-chemically active phosphate triesters

COMPUTATIONAL CHEMISTRY FOR MATERIALS
Chair: Emilia Olsson (ARCNL)
Room: 80/81
A. Perez de Alba Ortíz (UU)
Inverse design of self-assembling soft and porous materials
Jonathon Cottom (LEI)
Defects, charge-trapping, and stability of amorphous Si_3N_4
Willem Boon (UU)
How surface charge affects reaction kinetics
Raisa Biega (UT)
Ab initio calculations of excitons in 2D perovskites

BIOMATERIALS
Chair: Lisa Tran (UU)
Room: 82/83
E. Hochreiner (UU): *Designer drug delivery vehicles via polymerization-induced self-assembly (PISA)*
Merel Janssen (LEI): *A strain-stiffening dynamic covalent hydrogel drives cardiomyocyte alignment*
M. Komil (TUE): *Towards synthetic extracellular matrices using α-functionalized ureido-pyrimidinone-brush polymer*
Tony Feliciano (UM)
Non-covalent and Supramolecular Hydrogels for Ocular Regeneration

ORGANIC CHEMISTRY
Chair: Danny Broere (UU)
Room: Parkzaal
Daniel Verdoorn (UM)
Co (II) mediated synthesis of 2,5-substituted-1,3,4-oxadiazoles
Alyssa van den Boom (WUR)
Sulfur-phenolate exchange as next-generation click chemistry
Pamela Benzan Lantigua (UU)
Bond activation at a cage silanide: towards organocatalysis
Wouter Remmerswaal (LEI)
Bridged cations as reactive inter-mediates in glycosylation reactions

PROTEIN MECHANISMS
Chair: Frans Bianchi (RUG)
Room: 55/56
Harry Warner (RUG)
Inflammatory Activation Drives Re-Sculpting of Dendritic Cell Nucleus
Bruna Eckhartdt (Hubrecht Inst)
Mechanism of chromatin assembly during DNA replication
Valerie Betting (Radboudumc)
Mechanism of Piwi4-mediated gene silencing in mosquitoes
Laura Claessens (LUMC)
SUMO-chain protease SENP6 is required for genome stability

CHEMISTRY AND BIOLOGY OF CARBOHYDRATES
Chair: Marthe Walvoort (RUG)
Room: Boszaal
Michela Ferrari (RUG)
Generation of novel donors for tranglycosylation by glycosidases
Francesco Palmieri (UU)
Automated chemoenzymatic synthesis o heparan sulfate oligosaccharides
Jitske van Ede (TUD)
The diverse flagellin sugar modifications of C. jejuni
Mengying Liu (UU): *Influenza viruses bridge species differences by heteromultivalent interactions*

ANTIBIOTICS
Chair: Marc Baggelaar (UU)
Room: 57/58
Isabel Nunez Santiago (LEI)
Chemistry, enzymology and genomics of lugdunomycin biosynthesis
Michela Vargiu (RUG)
Chemical modification of Dha residues in antimicrobial peptides
Jaco Slingerland (LEI)
Semi-synthetic polymyxins antibiotics with reduced nephrotoxicity
Felix Paulussen (VU)
Covalent proteomimetic inhibitor of the bacterial FtsQB complex

SHAPE YOUR CAREER
Chair: Maria Sovago (STALIA)
Zaal: 63/64
Session with career advice and with sponsors
Tbd which sponsors

15:10h – 15:30h BREAK__ VISIT SPONSORS__ NETWORKING @THE PLAZA

15:30h – 16:30h POSTERS

16:30h – 17:30h

HOMOGENEOUS CATALYSIS
Chair: Evgeny Pidko (TUD)
Room: Brabantzaal
Verena Sukowski (UvA)
Meta-C-H Arylation of Anisoles via Palladium/Norbornene Catalysis
Ashok Ramakrishnan (LEI)
Pd-catalyzed carbonylative synthesis of anhydrides from alkenes
Esther Sinnema (RUG)
From catalytic H-P bond activation to alpha-chiral olefins
Eva Meeus (UvA)
Radical-type aziridination with [Co^III(TAML^red)] in water

SUPRAMOLECULAR POLYMER CHEMISTRY
Chair: Ghislaine Vantomme (TUE)
Room: Auditorium
Stefan Wijker (TUE): *Capturing stable conformations of self-reporting aqueous polymeric nanoparticles*
G. Monreal Santiago (RUG): *Bio-inspired peptide-containing coacer-vate as shear-responsive materials*
Roel Raak (TUE)
Patterned and collective motion of liquid crystal cilia
Marco Preuss (TUE)
Chiral solvent mediated spin polari-zation in supramolecular polymers

ENERGY & ELECTRONIC MATERIALS
Chair: Peter Ngene (UU)
Room: 65
Eda Yilmaz (UU)
Towards a biophotovoltaic device powered by photosynthesis
Winfried de Haas (TUE)
Operando studies on NiFeS battery performance
Xin Guan (TUE)
Pb1-xSnxTe nanowire growth via molecular beam epitaxy
Weizhe Zhang (LEI)
Proton conductive graphene membrane in methanol fuel cell

SUSTAINABLE POLYMER CHEMISTRY
Chair: Dina Maniar (RUG)
Room: 80/81
Tankut Türel (TUE)
Closed-loop recyclable epoxy resins derived from renewable bioresources
Laura Boetje (RUG)
Fully biobased photo-cured starch oleate films
Sofiya Vynnytska (UM)
A green polyampholytes based on poly(aspartic acid)
Bruno Bottega Pergher (UvA)
Renewable polyesters to replace ABS LEGO bricks

SPECTROSCOPY
Chair: A. Grubisic Cabo (RUG)
Room: 82/83
Vesna Eric (RUG): *The microscopic origin of the broadening in the optical spectra of chlorosomes*
Giulia Giubertoni (UvA)
IR diffusion-ordered spectroscopy reveal molecular structure and size
Han Mertens (TUD)
Towards studying thermally induced processes with ultrafast spectroscopy
Roderick Tas (TUE)
Revealing the ice binding dynamics of antifreeze proteins

THEORETICAL CHEMISTRY I
Chair: Ioana Ilie (UvA)
Room: Parkzaal
Titus de Haas (LEI)
Vibronic coupling in light driven water oxidation catalysis
Bauke Smits (LEI)
Quantum dynamical temperature effects of H_2 on Cu(111)
Hessel Poelman (UM)
Elementary interactions in protein structures: cation-pi
Seenivasan Hariharan (UvA)
Exploring water dissociation on oxides using quantum algorithms

PROTEIN STRUCTURE I
Chair: Evan Spruijt (RU)
Room: 55/56
Agnes Adler (UU)
An NMR view of the dynamic microtubule surface
Maria Hayder (UvA)
Native monoclonal antibody characterization using AF4-MS
Leonardo Passerini (LEI)
Intermediates of amyloid aggregation caught in the act
Tiemei Lu (RU)
Endocytosis of coacervate droplets into liposomes

PHOTOCHEMISTRY AND (BIO)SENSORS
Chair: Wim Velema (RU)
Room: Boszaal
Georgios Alachouzos (RUG):
The first NIR-activated photolabile protecting group for photopharmacology
Kefan Wu (UvA): *Upconversion nano-transducer for precisely positioned photochemistry in biology*
Mathijs Pals (RU)
A fluorogenic sensor for error-prone polymerases
Nienke van Dongen (UT)
Digital single cancer biomarker detection by CRISPR/Cas sensing

MATERIALS AND PARTICLES
Chair: Matt Baker (UM)
Room: 57/58
F. Fernandes Gomes (UT)
Biomimicking lipid coatings enhance hemocompatibility of microparticles
Laura Schijven (WUR)
Fabrication rules for hollow and solid protein particles
Pushpa Rampratap (RUG)
Dynamics and structure in ECM-mimicking hyaluronic acid hydrogels
Martijn van Galen (WUR)
Microfluidic force spectroscopy: a rapid mechanotyping assay

CHEMICAL BIOLOGY
Chair: Marta Artola (LEI)
Room: 63/64
David Perez Berrocal (LUMC)
Targeting Ub-Ligase activities en-route to new therapeutic strategies
Max Kloet (LUMC)
Synthesis of all arginine linked ADP-ribosylated ubiquitin proteins
Sophie Wintermans (LEI): *High-throughput screenings and develop-ment of RNA pseudoknots binders*
Samiksha Sardana (UU)
Profiling S-palmitoylation during neuronal differentiation

17:30h – 18:00h BREAK__ VISIT SPONSORS__ NETWORKING @THE PLAZA

18:00h – 19:45h DINNER @ BENELUXZAAL

19:45h – 20:30h Plenary Lecture @Beneluxzaal **ALAN ASPURU-GUZIK__ Univ. Of Toronto** **Title**: Billions upon billions of molecules

20:30h – 00:00h KNCV PUBQUIZ @Baroniezaal__ DRINKS AND MUSIC @Brabantzaal __ NEXTGENCHEM@NL MEET-UP @Limburgfoyer

KNCV ChemistryNL

2022 chains
CHemistry As INnovating Science

119 Ah! The element of surprise

C Co — CHEMICAL CONVERSION
C Mt — CHEMISTRY OF MATERIALS
F Mc — FUNDAMENTAL AND METHODS OF CHEMISTRY
Li Fe — CHEMISTRY OF LIFE

PROGRAMME THURSDAY 22 SEPTEMBER 2022 – Chairman Ferdinand Grozema (TUD, chair programme committee)

07:00h – 09:00h BREAKFAST__ TEA & COFFEE

09:00h – 10:00h

CATALYSIS FOR SYNTHESIS
Chair: Fedor Miloserdov (WUR)
Room: Brabantzaal

Damian Padin Santos (RUG)
Turning enantiomers into diasteromers; the case of alfa-ureidophosphonates
Dennis Dam (LEI)
Visible-Light Induced Catalytic Aziridination of Alkenes
Mark Kwakernaak (TUD)
Room temperature synthesis of perylene diimides
Benjamin Spitzbarth (TUD)
Oxidation-driven Michael Acceptor Recovery in a Reaction Network

ELECTROCATALYSIS
Chair: Ward van der Stam (UU)
Room: 63/64

Boaz Izelaar (TUD)
Electrochemical N_2 reduction performance of metal carbides
Dimitra Anastasiadou (TUE)
Ammonia Electrosynthesis from nitrate on preferentially oriented Cu_2O
Phebe van Langevelde (LEI)
Sustainable & efficient H_2O_2 production using molecular electrocatalysis
Matthijs van der Ham (WUR)
Steering the performance of Pt/CNF electrocatalysts

OPTICAL NANOMATERIALS
Chair: Marie Anne van de Haar (Seaborough)
Room: 65

Reinout Ubbink (TUD)
In-situ HF treatment of InP quantum dots
C. van Campenhout (AMOLF)
Uniform layer formation in mechanically active materials
Mark Mangnus (UU)
Finite-size effects on energy transfer within doped nanocrystals
Kushagra Gahlot (RUG)
Dynamics and tunability for Tin Halide Perovskites nanostructures

POLYMER CHEMISTRY & PHYSICS
Chair: Giuseppe Portale (RUG)
Room: 80/81

M. Falandt (UU): *Hybrid supramolecular /photoresponsive dynamic, volume trically bioprintable cell culture matrices*
Aleksander Guzik (RUG)
New amphiphilic polymers for controllin solution rheology
Sophie van Lange (WUR)
Compleximers: malleable and recyclable plastics with ionic interactions
Soumabrata Majumdar (TUE)
RNA inspired exchange reactions in covalent adaptable networks

ENERGY MATERIALS - PEROVSKITES
Chair: Tom Savenije (TUD)
Room: 82/83

Huygen Jöbsis (UU)
Iron alloyed double perovskites for improved photochemical activity
Zimu Wei (TUD)
Functional molecules on the surface of 2D-perovskite nanoplatelets
Jiashang Zhao (TUD): *Charge-carrier dynamics in co-evaporated $MAPbI_3$ with gradient compositions*
Maria Gelvez-Rueda (AMOLF)
Exciton spin dynamics in chiral layered perovskites

THEORETICAL CHEMISTRY II
Chair: Daria Galimberti (RU)
Room: Parkzaal

Elisa Palacino-González (RUG):
Modelling ultrafast charge-transfer and spectroscopy in OPV materials
Vivek Sundaram (TUE)
Electronic Excitations from projector-based GW-BSE embeddings
Ravindra Shinde (UT)
High-performance software platform for quantum Monte Carlo calculations
Marijn Man (RU)
Using classical trajectories to study ultracold collision complexes

PROTEIN STRUCTURE II
Chair: Arjen Jakobi (TUD)
Room: 55/56

Raj Kumar (UU)
The molecular mechanism of the lipopeptide-antibiotic Daptomycin
Sourav Maity (RUG)
Unveiling antibiotic activity at the single molecule level
Lucas Santos (RUG)
Phosphate uptake pathway in Xanthomonas citri
Wenfei Song (UU)
Rubrerythrin encapsulates encapsulins in archaea

MEDICINAL CHEMISTRY
Chair: Paul Geurink (LUMC)
Room: Boszaal

Auke Koops (TUE): *Cooperativity as chemical-biology paradigm for nuclear receptor Drug-discovery*
Yuqing Jia (LUMC)
Target oncogene PARK7 by small-molecule chemical toolbox
Bente Somsen (TUE): *Stabilization of protein-protein interactions of the 14-3-3/ERRgamma complex*
Na Zhu (LEI)
Discovery of selective sn-1-diacylglycerol lipase-β inhibitors

PROTEIN MODIFICATION AND BIOCATALYSIS
Chair: Bauke Albada (WUR)
Room: 57/58

Yiming Guo (RUG)
Engineering a biocatalysts for valorizing lignin
Alejandro Gran Scheuch (VU)
Expanding the enzyme universe: (re)designing a Michaelase
Jordi Keijzer (WUR)
Catalytic nanostructures for the modification of wild-type proteins
Aleksandra Chikunova (LEI)
The roles of conserved residues in β-lactamases

INCLUSION IN CHEMISTRY
Chair: Eveline Mezger (NWO)
Zaal: Auditorium

Sisters in Science
Breaking stereotypes in chemistry

By: Noor Abdulhussain, Lotte Schreuders, Mimi den Uijl (UvA)

Carolin Ossenkop (RU)
Assessing inclusively: Towards a more diverse and inclusive research community

10:00h – 10:20h BREAK__ VISIT SPONSORS__ NETWORKING @THE PLAZA

10:20h – 10:50h

Magda Titirici (Imperial College London)
Sustainable Batteries and Electrocatalysis for Clean Energy Technologies
Chair: Yvonne van der Meer (UM)
Room: Parkzaal

Wim Noorduin (AMOLF/UvA)
Self-organization for shaping up materials
Chair: Andries Meijerink (UU)
Room: Brabantzaal

Silvia Bordiga (Univ. of Torino)
Spotlight on zeolites and MOFs as catalysts: similarities and differences; strengths and weakness
Chair: Jana Roithova (RU)
Room: Auditorium

Gijsje Koenderink (TUD)
Cell morphogenesis: From polymer physics to synthetic cells
Chair: Jan van Hest (TUE)
Room: Beneluxzaal

10:55h – 11:40h

CIRCULAR CARBON I
Chair: Paolo Pescarmona (RUG)
Room: Brabantzaal

Tom Smak (UU)
Thermo-oxidative Degradation of Polyethylene Waste
Salvador Bertran (RUG)
Step-wise inflow fractionation of grassy biomass
Ferdy Coumans (TUE)
Optimized catalysts for biobased p-xylene from sugars

HETEROGENEOUS CATALYSIS
Chair: Atsushi Urakawa (TUD)
Room: 57/58

Luc Smulders (UU)
Optimizing noble metal utilization in bifunctional catalysts
Yujie Liu (TUE)
Reactivity of Fe@ZSM-5 catalysts for methane dehydro-aromatization
Oscar Brandt Corstius (UU)
Colloidally prepared CuPd/C catalysts for selective hydrogenation

BIO-NANOMATERIALS
Chair: Willem Mulder TUE)
Room: 65

Panagiota Papadopoulou (LEI)
Cell specific targeting of lipid nanoparticles
Matt Timmers (UU)
Using trityl for tuneable acid-sensitive drug release
Henrik Siegel (UU): *Membrane synthesis via nanoparticle stabilized liquid-liquid phase separation*

ELECTROCHEMICAL MATERIALS
Chair: Rik Mom (LEI)
Room: 80/81

Emma van der Minne (UT)
Ferromagnetic perovskites as oxygen evolution electrocatalysts
Taghi Moazzenzade (UT)
Digital detection of ssDNA by blockade impact electrochemistry
Renee van Limpt (TUE)
On the Ni/Co ratio in CoxNi1-xOy as OER-electrocatalyst

MOLECULAR SENSORS AND SWITCHES
Chair: Sander Wezenberg (LEI)
Room: 82/83

Harith Gurunarayanan (UU)
Au nanorod supraparticles as tunable platform for SERS-sensing
Begüm Demirkurt (UvA)
Blinking of single fluorescent rotors at constrained interfaces
Jorn de Jong (LEI)
Photocontrol of anion binding using pseudo-rotaxanes

NMR
Chair: Evan Wenbo Zhao (RU)
Room: Parkzaal

Sander Baas (WUR): *Improving NMR sensitivity with microfluidic microcoil-based photo-CIDNP hyperpolarization*
Bono Jimmink (RU)
Expanding the NMR portfolio with nuclear singlet states
Angel Wong (RU)
Rapid quantification of pharma-ceutical using ^{1}H ssNMR spectroscopy

ANALYTICAL METHODS
Chair: Nikolay Kosinov (TUE)
Room: 55/56

Iris Groeneveld (VU)
New versatile tool for studying light-induced degradation
Joren Vos (UU): *Electric potential inside electrode micropores from thermodynamic measurements*
Chris Vu (TUE): *Continuous monitoring of small molecules with single-molecule resolution*

TRANSCRIPTION REGULATION
Chair: P. Miesen (Radboudumc)
Room: Boszaal

Jos Meeussen (NKI)
How transcription factor clustering regulates gene expression
E. Taşköprü (Radboudumc): *piRNA-mediated transcriptional silencing of LTR-retrotransposons in Aedes mosquitoes*
Fatema Zahra M. Rashid (LEI)
Regulation of proVWX transcription by local chromatin remodelling

NATURAL PRODUCT SYNTHESIS
Chair: Eelco Ruijter (VU)
Room: Auditorium

Backerprize lecture Mira Holzheimer (RUG)
Total Synthesis of Archaeal and Mycobacterial Natural Products

Daan Bunt (RUG)
Divergent total synthesis of meroter-penoids from ganoderma mushrooms

TARGETED DRUG DELIVERY
Chair: Sebastian Pomplun (LEI)
Room: 63/64

N. Bergkamp (VU): *GPCR-targeting nanobodies: versatile research tools and potential therapeutics*
Jeffrey Umotoy (AUMC)
Arming antibodies for HIV-1 cure

Ada Annala (UU)
Sustained delivery of dexamethasone for ocular applications

11:40h – 12:40h LUNCH @THE PLAZA

12:40h – 13:40h POSTERS

13:40h – 14:25h INTERDISCIPLINARY FOCUS SESSIONS

CO_2 capture and utilization
Chair: Matteo Monai (UU), Ward van der Stam (UU)
Speakers: Ann-Sophie Farle (Skytree), Paula Abdala Macarena (ETH Zurich), Mariana Cecilio de Oliveira Monteiro (LEI)
Room: Brabantzaal

A new era in (structural) biology - Impact of structure prediction using AI methods
Chair: Anastassis Perrakis (NKI)
Speakers: Sameer Velankar (European Bioinformatics Institute)
Room: Beneluxzaal

Quantum computing for quantum chemistry
Chair: Lucas Visscher (VU)
Speakers: Ariana Torres-Knoop (SURF), Matthias de Groote (Boehringer Ingelheim), Emiel Koridon (CWI)
Room: Auditorium

Chemical immunotherapeutics
Chair: Martijn Verdoes (Radboudumc)
Speakers: Jorieke Weiden (EPFL), Willem Mulder (RU)
Room: 63/64

KNCV: Van Arkel award ceremony of the KNCV section soft matter
Chair: Katja Loos (RUG)
Speakers: tbd
Room: Parkzaal

14:25h – 14:45h BREAK__ VISIT SPONSORS__ NETWORKING @THE PLAZA

14:45h – 15:30h

CIRCULAR CARBON II
Chair: Guanna Li (WUR)
Room: Brabantzaal

Francesco Cannizzaro (TUE)
CO_2 hydrogenation over InNi clusters
Liliana Capulin Flores (RUG)
CO_2 reduction mediated by rhenium carbonyl formazan/ate complexes
Raghavendra Meena (WUR)
Mechanism of butyric acid hydro-deoxygenation catalyzed by Mo_2C

ENABLING TECHNOLOGIES
Chair: Lars Jeuken (LEI)
Room: 57/58

Jesus Orduna (UvA): *Continuous-flow photocatalytic conversion of hydroalkanes with organic electrophiles*
José Palomo Jiménez (TUD)
Enhancing catalytic methane activation via microwave heating
Laura Opdam (LEI)
Photo-activated water oxidation catalysis in an artificial metallo-protein

SOFT MATTER INSPIRED BY BIOSYSTEMS
Chair: Julieta Paez (UT)
Room: 65

Minye Jin (UT): *Firefly-inspired redox-responsive injectable hydrogels for cell encapsulation*
Nick Koppasis (UvA)
Intermittent motion of active colloidal swimmers
Paul Adamski (RUG): *Catalysis of coacervate droplet formation by synthetic self-replicators*

MATERIALS FOR HETEROGENEOUS CATALYSIS
Chair: Ina Vollmer (UU)
Room: 80/81

Kelly Brouwer (UU): *Designing well-defined heterogeneous catalysts via self-assembly of nanoparticles*
Elahe Motaee (LEI)
Regular surface defects in catalyzing the Fischer-Tropsch reaction
Thimo Jacobs (UU)
Nanoscale sensing of temperature during catalytic reactions

PHOTO-ACTIVE MATERIALS
Chair: Stephan Eijt (TUD)
Room: 82/83

E. Archontakis (TUE): *Spectral super resolution microscopy to study single-chain polymeric nanoparticles*
Alvaro Escobar (Hoges. Utrecht)
Engineering and preserving brilliant structural colour in bacteria
Ziying Wu (TUD)
Positrons reveal metallic nano-domain formation in photochromic oxyhydrides

MASS SPECTROMETRY
Chair: Roelant Hilgers (WUR)
Room: Parkzaal

Hany Majeed (VU)
Trapped ion mobility mass spectrometry of designer drugs
Kas Houthuijs (RU)
MS-based metabolite identification via an IR spectral library
Peiliang Han (UM)
MS/MS and IMS study of Nifedipine fragmentation pathways

CHEMOMETRICS
Chair: Egon Willighagen (UM)
Room: 55/56

Andrea Carnoli (RU)
Accounting for dependence in modeling chemical data
Rick van den Hurk (UvA)
Characterization of smokeless powders by on-line 2DLC
Murat Sorkun (DIFFER)
Exploration of chemical space with ChemPlot

IMMUNOTHERAPY
Chair: Sander van Kasteren (LEI)
Room: Boszaal

Nina Ligthart (LEI): *Bioortho-gonal regulation and tracking of α-galactosylceramide derivates*
Kevin Venrooij (RU)
One CAAR T cell to rule them all

Lieuwe Biewenga (TUE)
Engineering of a pH-switchable generic antibody-blocking protein

SYSTEMS CHEMISTRY
Chair: Peter Korevaar (RU)
Room: Auditorium

Shikha Dhiman (TUE): *Reciprocal receptor clustering by dynamic multivalent supramolecular polymers*
Dmitrii Kriukov (UT): *History-dependence in chemical reaction networks enable dynamic switching*
Oliver R. Maquire (RU)
A prebiotic phosphorylation system with analogues of ATP and kinases

IN SILICO
Chair: Anthe Janssen (LEI)
Room: 63/64

B. Mohr (UvA): *Rational discove-ry of cardiolipin-selective molecules by high-throughput simulations*
David Poole III (VU)
In silico assessment of aryl hydrocarbon receptor activation
Ida de Vries (NKI)
AlphaFill: Enriching AlphaFold models with co-factors and ligands

15:35h – 16:20h Plenary Lecture @Beneluxzaal **TITIA SIXMA__ NKI** **Title:** Dub gymnastics: allosteric regulation of deubiquitination

16:20h – 16:35h **POSTERPRIZES** (sponsored by ACS) and closing remarks

KNCV ChemistryNL