NPS2023

Netherlands Process technology Symposium

Engineering a Better Tomorrow

6 & 7 July 2023

Program

UNIVERSITY OF TWENTE.

Kinepolis | Colosseum 60 | Enschede | nps2023@utwente.nl

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PLEASE NOTE:

Previous Room 5 is now

Room 10

Please note that this document is interactive. If you click in the table of content or the session of your interest in the timetable, it will automatically go to there. If you wish to go back to the table of contents, simply click on Back to Top at the bottom of each page. Version 5 July 2023

Timetable

6th of July

Time	Room			
	Room 6	Room 7	Room 8	Room 10
08:30 - 09:00	Registration *(Foyer Kinepolis)*			
09:00 - 10:45	Opening, Welcome and Plenary I & II *(Room 10)*			
10:45 - 11:15	Coffee Break *(2nd floor Kinepolis)*			
11:15 - 12:30	Parallel 1.1 Bioprocess Engineering, Food & Pharma *(incl. Keynote 1)*	Parallel 1.2 Circularity & Sustainability *(incl. Keynote 2)*	Parallel 1.3 Electrochemical Engineering	Parallel 1.4 Reactor Engineering & Transport Phenomena
12:30 - 13:30	Lunch Break *(2nd floor Kinepolis)*			
13:30 - 14:45	Parallel 2.1 Process Systems Engineering *(incl. Keynote 3)*	Parallel 2.2 Bioprocess Engineering, Food & Pharma *(incl. Keynote 4)*	Parallel 2.3 Seperation Technology & Thermodynamics	Parallel 2.4 Reactor Engineering & Transport Phenomena
14:45 - 15:15	Coffee Break *(2nd floor Kinepolis)*			
15:15 - 16:30	Plenary III + Poster Parade (room 10)			
16:30 - 18:00	Poster session & welcome reception *(2nd floor Kinepolis)*			
19:00 - 21:00	Conference dinner (Fletcher Hotel, De Bakspieker)			

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7th of July

Time	Room			
	Room 6	Room 7	Room 8	Room 10
08:30 - 09:00	Registration *(Foyer Kinepolis)*			
09:00 - 10:45	Announcements, Plenary IV, and Poster Parade *(Room 10)*			
10:45 - 11:15	Coffee break *(2nd floor Kinepolis)*			
11:15 - 12:30	Parallel 3.1 Circularity & Sustainability	Parallel 3.2 Seperation Technology & Thermodynamics	Parallel 3.3 Electrochemical Engineering	Parallel 3.4 Reactor Engineering & Transport Phenomena
12:30 - 13:30	Poster Session + Lunch Break *(2nd floor Kinepolis)*			
13:30 - 14:45	Parallel 4.1 Circularity & Sustainability *(incl. Keynote 5)*	Parallel 4.2 Process Systems Engineering *(incl. Keynote 6)*	Parallel 4.3 Separation Technology & Thermodynamics	Parallel 4.4 Reactor Engineering & Transport Phenomena
14:45 - 15:15	Coffee Break *(2nd floor Kinepolis)*			
15:15 - 16:15	Plenary V, Awards and Closing Ceremony *(Room 10)*			

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Themes

During NPS 2023 we have six themes that encompass our motto ‘Engineering a Better Tomorrow’. These are:

- ◊ Reaction Engineering & Transport Phenomena
- ◊ Electrochemical Engineering
- ◊ Seperation Technology & Thermodynamics
- ◊ Bioprocess Engineering, Food & Pharma
- ◊ Process Systems Engineering & Industry 4.0
- ◊ Circularity & Sustainability

Instructions for presenters

Please contact the chair of your session 15 minutes prior to the start of your parallel session and make sure you upload and test the presentation. You can also upload your presentation before the start of NPS2023 here.

For posters, please upload your poster 4th of July at the latest here, so we can prepare for the poster parade.

Plenary
Timing: 40 minutes presetation + 5 minutes discussion

Keynote
Timing: 25 minutes presentation + 5 minutes discussion

Oral
Timing: 12 minutes presentation + 3 minutes discussion

Poster
A0 Poster + 3 slides for the poster parade (pitch presentation of 2 minutes)

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Program Oral Presentations 6

5th & 6th of July

Wednesday 5th of July 2023

NPS Business Dinner (by invitation only)

From 19:00 to 22:00, U Parkhotel (Board room, 9th floor)

Thursday 6th of July 2023

Registration

From 08:30 to 09:00, Kinepolis (Foyer, Main Entrance)

Welcome and Plenary lecture I & II

From 09:00 to 10:45, Kinepolis (Room 10)

Chaired by: Meik Franke & Edwin Zondervan

9:30 **[Plen01] Title:** (Bio)waste for Tomorrow's Chemicals
Presenter: Herman Klein Teeselink (HoST)

10:15 **[Plen02] Title:** Digital Transformations of Chemical Engineering Science
Presenter: Hans Hasse (RPTU, Rheinland-Pfälzische Technische Universität Kaiserlautern-Landau)

Coffee Break

From 10:45 to 11:15 to 12:30, Kinepolis (2nd Floor)

Parallel Session 1.1 Bioprocess Engineering, Food & Pharma

From 11:15 to 12:30, Kinepolis (Room 6)

Chaired by: Karin Schroen

11:15 **[K01] Title (Keynote Lecture):** Efficient pretreatment of lignocellulosic biomass with hot liquid water for co-product valorization
Presenter: Adrie Straathof (Delft University of Technology)

11:45 **[L01] Title:** Liquid-liquid extraction of medical radioisotopes in microfluidic channels treated by atomic layer
Presenter: Albert Santoso (Delft University of Technology)

12:00 **[L02] Title:** A plant wide simulation of polyhydroxyalkanoate production from waste water and its conversion to methyl crotonate
Presenter: Akbar Asadi Tashvigh (Wageningen University & Research)

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12:15 **[L03] Title:** Coupling hydrodynamics and metabolic dynamics in syngas fermentation guiding industrial reactor design
Presenter: Lars Puiman (Delft University of Technology)

Parallel Session 1.2 Circularity & Sustainability

From 11:15 to 12:30, Kinepolis (Room 7)

Chaired by: Sascha Kersten

11:15 **[L04] Title:** Eco-efficient separation and purification of bioethanol from syngas fermentation
Presenter: Tamara Janković (Delft University of Technology)

11:30 **[L05] Title:** Industrial Production Of Propylene Using Dense Ceramic Membranes
Presenter: Jord Peter Haven (University of Twente)

11:45 **[L06] Title**: Modeling of syngas fermentation: a Gibbs free energy-constrained black-box model that predicts selectivity between ethanol and acetic acid
Presenter: Eduardo Francisco Almeida Benalcázar (Delft University of Technology)

12:00 **[K02] Title (Keynote Lecture):** Teaching break-through process concept design by functions
Presenter: Jan Harmsen (Harmsen Consultancy B.V.)

Parallel Session 1.3 Electrochemical Engineering

From 11:15 to 12:30, Kinepolis (Room 8)

Chaired by: Bastian Mei

11:15 **[L07] Title:** Design of an Elevated Pressure Electrochemical Flow Cell for \ CO2 Reduction
Presenter: Nandalal Girichandran (Delft University of Technology)

11:30 **[L08] Title:** Development of high differential pressure AEM electrolyzer
Presenter: Anirudh Venugopal (HyET E-Trol)

11:45 **[L09] Title:** Suspension electrodes for electrochemical CO2 reduction
Presenter: Nathalie E.G. Ligthart (Delft University of Technology)

12:00 **[L10] Title:** Clay composite membranes for salinity gradient batteries
Presenter: Nadia Boulif (Eindhoven University of Technology)

12:15 **[L11] Title:** Dendritic Iron Formation in Low-Temperature Iron Oxide Electroreduction Process using Alkaline Solution
Presenter: Akmal Irfan Majid (Eindhoven University of Technology)

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Parallel Session 1.4 Reactor Engineering & Transport Phenomena

From 11:15 to 12:30, Kinepolis (Room 10)

Chaired by: Martin van Sint Annaland

11:15 **[L12] Title:** The mechanism behind vibro-assisted fluidization of cohesive micro-silica
Presenter: Rens Kamphorst (Delft University of Technology)

11:30 **[L13] Title:** Stirrer design for improving fluidization of cohesive powders
Presenter: Kaiqiao Wu (Delft University of Technology)

11:45 ~~**[L14] Title:** Understanding particle flows in sub-fluidized horizontal stirred bed reactors by radioactive particle tracking~~
~~**Presenter**: Pieter Christian van der Sande (Delft University of Technology)~~

12:00 **[L15] Title:** Hydrodynamic study of single- and two-phase flows in packed bed microreactors
Presenter: Lu Zhang (University of Groningen)

12:15 **[L16] Title:** Electrification of a steam cracker for ethylene production
Presenter: Javier Moreno (Delft University of Technology)

Lunch

From 12:30 to 13:30, Kinepolis (2nd Floor)

Parallel Session 2.1 Process Systems Engineering

From 13:30 to 14:45, Kinepolis (Room 6)

Chaired by: Artur Schweidtmann

13:30 **[K03] Title (Keynote lecture):** Multiscale and multidisciplinary modelling for the sustainable design of co-electrolysis systems
Presenter: Mar Pérez-Fortes (Delft University of Technology)

14:00 **[L17] Title:** Fabricating multi-scale materials via in-air microfluidics
Presenter: Claas Willem Visser (University of Twente)

14:15 **[L18] Title:** Effect of gaseous contaminants on electrochemical CO2 reduction to C2+ products
Presenter: Asvin Sajeev Kumar (Delft University of Technology)

14:30 **[L19] Title:** Using a superstructure approach for techno-economic analysis of membrane processes
Presenter: Rouzbeh Ramezani (Eindhoven University of Technology)

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Parallel Session 2.2 Bioprocess Engineering, Food & Pharma

From 13:30 to 14:45, Kinepolis (Room 7)

Chaired by: Adrie Straathof

13:30 **L20] Title:** Membrane performance and mass transfer with adjusting solution pH and ionic strength during fractionating a fish protein hydrolysate
Presenter: Nattawan Chorhirankul (Wageningen University & Research)

13:45 **[L21] Title:** Dry fractionation for sustainable recovery of protein enriched ingredients: A focus on powder properties
Presenter : Regina Politiek (Wageningen University & Research)

14:00 **[L22] Title:** Prediction of Permeate Flux and Rejection during Microfiltration of Skim Milk at Low Temperature Using a Geometric Model
Presenter Hilda Lucy Nyambura (Wageningen University & Research)

14:15 **[K04] Title (Keynote lecture):** Technology: a crucial component in food transition. How a Dutch cooperative contributes to more sustainable foods
Presenter: Kees Maarschalk (Avebe)

Parallel Session 2.3 Separation Technology & Thermodynamics

From 13:30 to 14:45, Kinepolis (Room 8)

Chaired by: Arian Nijmeijer

13:30 **[L23] Title:** Understanding Ion Crossover in Acid-Base Flow Battery for Long Duration Energy Storage
Presenter: David Vermaas (Delft University of Technology)

13:45 **[L24] Title:** Dynamic ammonium retention in membrane processes for nutrient separation from manure
Presenter: Marrit van der Wal (Eindhoven University of Technology)

14:00 **[L25] Title:** Study of organic solvents in the extraction of lignin and furanics from deep eutectic
Presenter: Mahsa Gholami (University of Twente)

14:15 **[L26] Title:** Laser-Induced Cavitation for Controlling Crystallization from Solution
Presenter: Burak Eral (Delft University of Technology)

14:30 **[L27] Title:** Reactive extraction-promoted 5-hydroxymethylfurfural production in deep eutectic solvents in batch reactors and microreactors
Presenter: Chencong Ruan (University of Groningen)

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Parallel Session 2.4 Reactor Engineering & Transport Phenomena

From 13:30 to 14:45, Kinepolis (Room 10)

Chaired by: Leon Lefferts

13:30 **[L28] Title:** LOGIC 2.0: Towards a natural convection driven, autothermal and condensing methanol reactor
Presenter: Tim van Schagen (University of Twente)

13:45 **[L29] Title:** Catalyst deactivation in methanol synthesis
Presenter: Lola Azancot Luque (University of Twente)

14:00 **[L30] Title:** Experimental study of droplet-side mass transfer in slug flow capillary microreactors
Presenter: Tingting Wang (University of Groningen)

14:15 **[L31] Title**: Numerical investigation of the primary break-up of a jet for laminar and turbulent conditions
Presenter: Cristina García Llamas (Eindhoven University of Technology)

14:30 **[L32] Title:** Photochemical Transformations using the Rotor-Stator Spinning Disc Reactor
Presenter: Arnab Chaudhuri (Eindhoven University of Technoloy)

Coffee Break

From 14:45 to 15:15, Kinepolis (2nd Floor)

Plenary lecture III & Poster Parade

From 15:15 to 16:30, Kinepolis (Room 10)

Chaired by: Jimmy Faria Albanese & Anne Tiehuis

15:15 **[Plen03] Title:** Chemical Recycling of Packaging Plastic Waste via Thermal Pyrolysis
Presenter: Pilar Ruiz Ramiro (University of Twente)

16:00 15 relay poster presentations (each 2 minutes)

NPS Reception

From 16:30 to 18:00, Kinepolis (2nd Floor)

Conference Dinner

From 19:00 to 22:00, Fletcher Hotel De Broeierd (De Bakspeieker)

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7th of July

Friday 7th of July 2023

Registration

From 08:30 to 09:00, Kinepolis (Foyer, Main Entrance)

Excursion Microfarm Biogas Plant (HoST) (by registration)

From 09:00 to 12:00, Deurningen

Plant excursion for students offered by HoST, pick-up from Kinepolis

Announcements, Plenary IV & Poster Parade

From 09:00 to 10:45, Kinepolis (Room 10)

Chaired by: Marie-Alix Pizzocarro & Anne Tiehuis

09:20 **[Plen04]** Defosilizing the industrial sector: from incrementalism to radical disruption
Presenter: Andrea Ramirez (Delft University of Technology)

10:05 23 Relay poster presentations (each 2 minutes)

Coffee Break

From 10:45 to 11:15, Kinepolis (2nd Floor)

Parallel Session 3.1 Circularity & Sustainability

From 11:15 to 12:30, Kinepolis (Room 6)

Chaired by: Andrea Ramirez

11:15 **[L33] Title:** Stability of potassium-promoted hydrotalcite for CO2 capture under different adsorption/desorption cycles
Presenter: Kun Xin (Eindhoven University of Technology)

11:30 **[L34] Title:** Chemical recycling of plastic waste: from polyolefins to short alkanes via hydrogenolysis
Presenter: Eline van Daatselaar (University of Twente)

11:45 **[L35] Title:** Cellulase enzyme recovery from cellulosic hydrolysate
Presenter: Elchin Jafariyeh Yazdi (University of Groningen)

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12:00 **[L36] Title:** Exploring the Intrinsic Kinetics of Polyolefins Pyrolysis in a Screen Heater Reactor
Presenter: Dwiputra Muhammad Zairin (University of Twente)

12:15 **[L37] Title**: Chemical Recycling of Polyurethanes: Conversion of Carbamates
Presenter: Shahab Zamani Gharaghooshi (University of Twente)

Parallel Session 3.2 Separation Technology & Thermodynamics

From 11:15 to 12:30, Kinepolis (Room 7)

Chaired by: Zandri Borneman

11:15 **[L38] Title**: Growth dynamics of aspirin crystals in microfluidic antisolvent crystallization
Presenter: Vikram Korede (Delft University of Technology)

11:30 **[L39] Title:** Supercritical Drying Of Starch
Presenter: Federico Perondi (University of Groningen)

11:45 **[L40] Title:** Layer-by-layer modified electrospun bipolar membranes for enhanced water dissociation
Presenter: Menno Houben (Eindhoven University of Technology)

12:00 **[L41] Title:** Electrochemically mediated carbon monoxide separation
Presenter: Christel Koopman (Delft University of Technology)

12:15 **[L42] Title:** Carbon Molecular Sieve Membranes for separation of Helium from Natural Gas
Presenter: Arash Rahimalimamaghani (Eindhoven University of Technology)

Parallel Session 3.3 Electrochemical Engineering

From 11:15 to 12:30, Kinepolis (Room 8)

Chaired by: Guido Mul

11:15 **[L43] Title:** OH- selective thin film composite membranes can prevent CO2 loss in CO2 electrolysis
Presenter: Kostadin Veselinov Petrov (Delft University of Technology)

11:30 **[L44] Title:** Engineering gas diffusion electrode microstructures for the electrochemical reduction of CO2 to ethylene
Presenter: Senan F. Amireh (Eindhoven University of Technology)

11:45 **[L45] Title:** Thermal implications in next-generation CO2 electrolyzers: a hot topic
Presenter: Jan-Willem Hurkmans (Delft University of Technology)

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~~**12:00**~~ **[L46] Title:** Build a startup from scratch
Presenter: Tim de Kraker (Novel-T)

12:15 **[L47] Title**: Modeling optimal operational strategies for alkaline electrolyser under dynamic power input conditions
Presenter: Michele Tedesco (TNO)

Parallel Session 3.4 Reactor Engineering & Transport Phenomena

From 11:15 to 12:30, Kinepolis (Room 10)

Chaired by: John Padding

11:15 **[L48] Title:** Visualizing pH and mass transport in electrolyser with new FLIM probes
Presenter: Jorrit Bleeker (Delft University of Technology)

11:30 **[L49] Title:** 3D Air Bubble Shape Reconstruction from 2D Imagery using Neural Net works and Spherical Harmonics
Presenter: Douwe Orij (Eindhoven University of Technology)

11:45 **[L50] Title:** Predicting the steady-state performance of Pickering emulsion reactors
Presenter: Yanyan Liu (Delft University of Technology)

12:00 **[L51] Title**: Study of the Hydrodynamics in a Trickle Bed Reactor using Particle-resolved Simulations
Presenter: Arvin Tavanaei (Eindhoven University of Technology)

12:15 **[L52] Title:** Development of long-term Hydrogen storage technologies through green ammonia production in innovative Catalytic Membrane Reactor (CMR)
Presenter: Iolanda Gargiulo (Eindhoven University of Technology)

Lunch & Poster Session

From 12:30 to 13:30, Kinepolis (2nd Floor)

Parallel Session 4.1 Circularity & Sustainability

From 13:30 to 14:45, Kinepolis (Room 6)

Chaired by: Mar Pérez-Fortes

13:30 **[K05] Title:** Python in Chemical Process Simulation
Presenter: Armin Fricke (CGC Capital-Gain Consultants GmbH)

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14:00 **[L53] Title :** Unravelling the impact of using alternative carbon feedstocks in existing petrochemical clusters

Presenter: Andrea Ramirez (Delft University of Technology)

14:15 **[L54] Title:** Wind Turbine Blade Recycling Process Which Fits the Circular Economy System Concept
Presenter: Maximiliano Taube (Delft University of Technology)

14:30 **[L55] Title:** Production of 1,2-propanediol by the aqueous phase hydrogenolysis of glycerol without external hydrogen addition over Ni/Al3Fe1: effect of the calcination temperature
Presenter: Raquel Raso Roka (Universidad de Zaragoza)

Parallel Session 4.2 Process Systems Engineering

From 13:30 to 14:45, Kinepolis (Room 7)

Chaired by: Tony Kiss

13:30 **[L56] Title:** Optimal scheduling and sizing for a microbial electrosynthesis plant integrated with renewable electricity
Presenter: Jisiwei Luo (Delft University of Technology)

13:45 **[L57] Title:** Physics-informed reinforcement learning for process design
Presenter: Ernst Uijthof (University of Twente)

14:00 **[L58] Title:** Optimization of a Membrane Cascade for Binary Gas Separation under Uncertainty of Membrane Properties
Presenter: Albertus Fuad Prajna Harto Subagyo (University of Twente)

14:15 **[K06] Title (Keynote lecture):** Designing Chemical Manufacturing Automation with Care
Presenter: Michael Wartmann

Parallel Session 4.3 Separation Technology & Thermodynamics

From 13:30 to 14:45, Kinepolis (Room 8)

Chaired by: Boelo Schuur

13:30 **[L59] Title:** Comparison of solvent and sorbent-based carbon capture systems in LNG-fueled ships
Presenter: Jayaram Ganesan (University of Twente)

13:45 **[L60] Title:** Process synthesis and design of intensified distillation sequences
Presenter: Qing Li (Delft University of Technology)

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14:00 **[L61] Title:** Purification of CO2-based lactic and glyoxylic acids using membrane technology
Presenter: Paulina A. Sosa Fernandez (University of Twente)

14:15 **[L62] Title:** A hybrid hollow fiber nanofiltration process for organic micro-pollutant removal from wastewater
Presenter: Hans David Wendt (University of Twente)

14:30 **[L63] Title:** Evaporative crystallization of sessile droplets using electrowetting
Presenter: Qi An (Delft University of Technology)

Parallel Session 4.4 Reactor Engineering & Transport Phenomena

From 13:30 to 14:45, Kinepolis (Room 10)

Chaired by: Pilar Ruiz Ramiro

13:30 **[L64] Title:** Operando spatial reactor analysis for the kinetic study of oxidative coupling of methane
Presenter: Jose Palomo Jimenez (Delft University of Technology)

13:45 **[L65] Title:** Precipitation of species during drying in catalyst preparation
Presenter: D.R. (David) Rieder (Eindhoven University of Technology)

14:00 **[L66] Title:** Solidification and Solute Redistribution During a Progressive Freeze Concentration Process -Theoretical Modeling and Experimental Validation
Presenter: Zhuo Zhang (University of Twente)

14:15 **[L67] Title**: Sublimation temperature of carbon dioxide for varying ambient pressure and far-field concentration
Presenter: Abhishek Purandare (University of Twente)

14:30 **[L68] Title:** Ru-based nanocatalysts for ammonia production in Membrane Reactors
Presenter: Gaetano Anello (Eindhoven University of Technology)

Coffee Break

From 14:45 to 15:15, Kinepolis (2nd Floor)

Plenary Lecture V, Awards & Closing Ceremony

From 15:15 to 16:35, Kinepolis (Room 5)

Chaired by: Aayan Banerjee & Meik Franke

15:15 **[Plen05]** Accelerating Pathways to ‘Net-Zero’: Development of Electro(-chemical) Driven Reactors/Separators
Presenter: Peter Veenstra, (Shell)

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Poster Presentations 16

6th of July

Poster Parade

From 15:15 to 16:30, Kinepolis (Room 10)

15:15

[P01] Title: Designing Gas Diffusion Electrodes with Tailored Wettability for CO2 Reduction Electrolyzers
Presenter: Mert Can Erer

~~**[P02] Title:** The conversion of furfural to bio jet fuel~~
~~**Presenter**: Rick Baldenhofer~~

[P03] Title: Surface functionalization of Cu electrocatalysts for the electrochemical reduction of CO2 to ethylene with improved selectivity and durability
Presenter: Jesse Thomas Benjamin de Boer

[P04] Title: On the influence of trialkylamine reduction strategies in the direct hydrogenation of CO2 to formic acid
Presenter: Anouk de Leeuw den Bouter

[P05] Title: Heterogeneously SnPd-catalysed Nitrate and Nitrite reduction in aqueous solution
Presenter: Janek Betting

[P06] Title: Cobalt-based Fischer-Tropsch Synthesis catalysts for the conversion of CO2-rich syngas
Presenter: Stefan Wubs

[P07] Title: Creating lumped models for fluidized bed gasifiers using CFD
Presenter: Ravi Ramesh

[P08] Title: The Drive-Down System for Production, Storage, and Transport of Emission-Free Hydrogen
Presenter: Albertus Fuad Prajna Harto Subagyo

[P09] Title: Digitization of Process and Instrumentation Diagrams (P&IDs) using Deep Learning
Presenter: Artur Schweidtmann

[P10] Title: Liquid Organic Hydrogen Carriers - Process design and economic analysis for manufacturing N-ethylcarbazole
Presenter: Vivek Chandran Komath

[P11] Title: Verification of the Nanoparticle Heating Mechanism in Laser-Induced Nucleation of KCl Solution
Presenter: Pingping Cui

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[P12] Title: Micromixing efficiency in the turbulent boundary layers in a rotor-stator spinning disc reactor
Presenter: Christianus Hop

[P13] Title: Experimental studies on pressure drop and heat transfer in 3D printed baffled logpile structures
Presenter: Timothy van Lanen

[P14] Title: Integrating CO2 capture and electrochemical conversion using a bicarbonate flow cell: optimizing Cu/Ag foam electrode configuration for the production of ethylene and ethanol
Presenter: Iris Burgers

[P15] Title: Gas crossover in advanced zero-gap alkaline water electrolysis
Presenter: Rodrigo Lira Garcia Barros

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7th of July

Poster Parade

From 10:05 to 10:45, Kinepolis (Room 10)

[P16] Title: Surrogate models for the optimal design of distillation columns with vari able compositions
Presenter: Marc Caballero

[P17] Title: Impact of varying macronutrient composition on 3D printability of pea-based food formulations
Presenter: Aaditya Venkatachalam

[P18] Title: Electrically driven non-thermal dewatering of biomass (ELECTRIFIED)
Presenter: Maarten Schutyser

[P19] Title: Dry fractionation for sustainable recovery of protein enriched ingredients: A focus on powder properties
Presenter: Regina Politiek

[P20] Title: Assessment of a bio-molecular sensor in the operation of adsorption processes-A model based approach
Presenter: Leyla Ozkan

[P21] Title: ARTIS
Presenter: Hans van de Vorst

[P22] Title: Tuning mesoporous ceramic membranes for solvent nanofiltration
Presenter: Daan Borger

[P23] Title: Selection of green organic entrainers and natural deep eutectic solvents (NADESs) for azeotrope/close-boiling mixture separation by extractive distillation
Presenter: Dhoni Hartanto

[P24] Title: Study on turbulent flow and droplets behavior to optimize coalescence filter separators
Presenter: Weiran Zhang

[P25] Title: Electro-responsive hydrogels for implementation in dewatering and deionizing processes
Presenter: Esli Diepenbroek

[P26] Title: Properties of polyhydroxyalkanoate membranes formed using non-halogenated solvents
Presenter: Liang-Shin Wang

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[P27] Title: Process development of enhanced furfural production via boronic acid intermediates
Presenter: Peter van der Wal

[P28] Title: Methane oxidation on Pd/CeO2 nanorods, nanocubes and octahedra at low temperatures; structure-dependent activity and poison resistance
Presenter: Martim Chiquetto Policano

[P29] Title: Engineering of two-dimensional nanomaterial layers acting as membranes and reactive electrochemical separation systems
Presenter: Famke Sprakel

[P30] Title: Recyclable Bio-Based Thermoplastic Materials from Liquefied Wood
Presenter: Sterre van der Voort

[P31] Title: Preparation of Electrospun Forward Osmosis Membranes for Clean Water Production
Presenter: Aylin Kinik

[P32] Title: Exploring the detrimental effect of water activity on liquid phase fatty nitrile production for in-situ water removal
Presenter: Carola Raffel

~~**[P33] Title:** The Infinity Reactor: A new conceptual design for a more cost-efficient CO2 to methanol route~~
~~**Presenter**: Hilbert Keestra~~

[P34] Title: THOR- Inductive Heating of Processes
Presenter: Soraya Sluijter

[P35] Title: Modeling and simulation of reverse water gas shift reaction with induction heating
Presenter: Liangyuan Wei

[P36] Title: A systems perspective on chemicals manufacturing via electrochemical reduction of CO2
Presenter: Riccardo Dal Mas

[P37] Title: Solvent screening for purification of technical cashew nut shell liquid using COSMO-based methods
Presenter: Isabella Arenas Bustos

[P38] Title: Process development for the conversion of biomass to ethylene glycol
Presenter: Romolo Di Sabatino

[P39] Title: A conceptual understanding electro-osmotic dewatering of biomass
Presenter: Sarthak Metha

[P40] Title: Integrated CO2 capture and conversion in a single sorption-enhanced process
Presenter: Dora Chisalita

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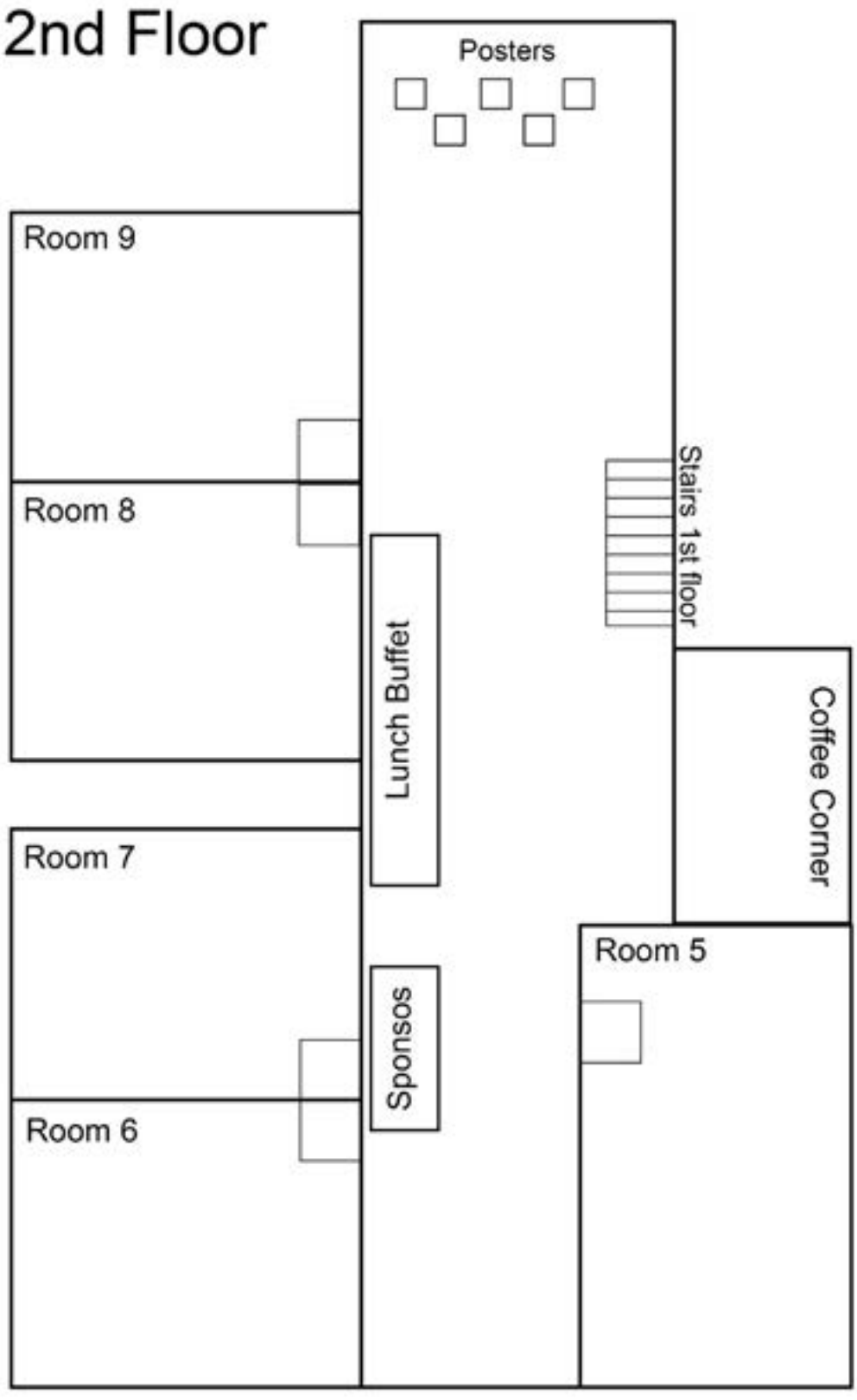
Floorplan Kinepolis



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Venue

The conference will be hosted in Kinepolis Enschede, located near the University of Twente campus.

Kinepolis

Colosseum 60
7521 PT Enschede
Netherlands

Directions:

Car - Take exit 26 at Enschede in the direction of Universiteit/Stadion. Follow the road to the left around the 'Grolsch Veste'. You will see Kinepolis Enschede on your right. You can park your car for free in one of the parking lots.

Public Transportation - Take the train to Enschede Kennispark station (formerly Drienerlo). This station can be reached by taking the slow train from Enschede, Hengelo, Zwolle, Deventer or Almelo. Kinepolis Enschede is about a 5 to 10 minute walk from the station.

Wheelchair Accessibility - Kinepolis Enschede is fully accessible to wheelchair users. Elevator and disabled toilets are available.

Accommodation

U Parkhotel, Intercity Hotel Enschede and Fletcher Hotel De Broeierd have a limited number of hotel rooms available for a reduced tariff.

U Parkhotel

De Veldmaat 8
7522 NM Enschede
+31 53 433 1366

Directions:

Car - From the A1 motorway follow the A35 motorway towards Enschede. Than take exit No. 26A Enschede-West/University. At the end of the exit, turn right at the traffic lights and keep following the University signs. Follow the U Parkhotel signs from the University main entrance. On the map of the UT building number 45 (Hogenkamp HO).

Public Transportation (Enschede Kennispark) - Leave the train at stop Enschede Kennispark station. The walking distance from Enschede Kenispark station to the U Parkhotel is approximately 19 minutes.
For the bus: Line 1 towards the University will enter the campus. Leave the bus at stop De Zul. The walking distance from stop De Zul to the U Parkhotel is approximately 3 minutes (300 meters). Line 1 leaves about 4 times per hour and the travel time is approximately 3 minutes.
Lines 8 and 9 to Hengelo do not enter the campus, but stop at the main university entrance (Kennispark/UT). The walking distance to the U Parkhotel is approximately 9 minutes (750 meters).

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(Enschede Central Station) - Leave the train at stop Central Station Enschede.

For the bus: Line 1 towards the University will enter the campus. Leave the bus at stop De Zul. The walking distance from stop De Zul to the U Parkhotel is approximately 3 minutes (300 meters). Line 1 leaves about 4 times per hour and the travel time is approximately 14 minutes.
Lines 8 and 9 to Hengelo do not enter the campus, but stop at the main university entrance (Kennispark / UT). The walking distance from stop Kennispark/UT to the U Parkhotel is approximately 9 minutes (750 meters).

Hengelo Central Station - Lines 8 and 9 run from Hengelo to Enschede will not enter the campus, but stop at the main university entrance (Kennispark/UT). The walking distance from stop Kennispark/UT to the U Parkhotel is approximately 9 minutes (750 meters).

Intercity Hotel Enschede

Willem Wilminkplein 5
7511 PG Enschede
+31 53 20 70000

Directions:

Car - From the A1 motorway follow the A35 motorway towards Enschede. Than take exit No. 26A Enschede-West/University. At the end of the exit, turn right at the traffic lights and keep going straight, following the Centrum signs. At the traffic lights next to Saxion University of Applied Sciences turn left and an immediate right at the next traffic lights. Follow the road until you hit the roundabout and turn right. At the end of the street turn left and an immediate right accros the train tracks. Go around the square and enter the parking garage of Intercity Hotel Enschede.

Public Transportation - Leave the train at stop Enschede Centraal. Go straight when exiting the train station. Keep walking until you the building Metropool. Entrace is near the stairs.

Fletcher Hotel De Broeierd

Hengelosestraat 725
7521 PA Enschede
053 - 850 65 00

Directions:

Car - *F*rom the A1 motorway follow the A35 motorway towards Enschede. Than take exit No. 26A Enschede-West/University. At the end of the exit, turn right at the traffic lights and keep following the University signs. After crossing the canal and passing the bridge, turn left at the traffic lights. Take the second road to the right. Hotel De Broeierd will be on your right hand side.

Public Transportation - Leave the train at stop Enschede Kennispark station.

(Enschede Central Station) - Take bus Line 9 to Hengelo CS and exit at stop De Broeierd or take the train to station Enschede Kennispark

(Hengelo Central Station) - ake bus Line 9 to Enschede CS and exit at stop De Broeierd or take the train to station Enschede Kennispark

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Conference Dinner

Brasserie De Bakspieker

Hengelosestraat 725
7521 PA Enschede
053 - 850 65 00

Directions:

Kinepolis - Exit the venue and walk towards the soccer stadium, Grolsch Veste. Go underneath the tracks on the left side of the stadium and keep walking straight until you hit the traffic lights. Turn left before the traffic lights and then De Bakspieker is on your right hand at Fletcher Hotel De Broeierd

*Car - F*rom the A1 motorway follow the A35 motorway towards Enschede. Than take exit No. 26A Enschede-West/University. At the end of the exit, turn right at the traffic lights and keep following the University signs. After crossing the canal and passing the bridge, turn left at the traffic lights. Take the second road to the right. Hotel De Broeierd will be on your right hand side.

Public Transportation - Leave the train at stop Enschede Kennispark station.

(Enschede Central Station) - Take bus Line 9 to Hengelo CS and exit at stop De Broeierd or take the train to station Enschede Kennispark

(Hengelo Central Station) - ake bus Line 9 to Enschede CS and exit at stop De Broeierd or take the train to station Enschede Kennispark

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