Poster programme.
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Fundamentals of chemical reaction engineering (F)

Poster_F1
Synthesis of a Trimetallic Catalyst for Steam Reforming of Methane to Produce On-Site Ultra-Pure Hydrogen through Membrane Reformer
Anjali Baudh, Rahul Sharma, Sweta Sharma, Rajesh K Upadhyay

Poster_F2
Solid Phase Flow Dynamics in Circulating Fluidized Bed Riser at Two Scales Using Radiotracer Technique
Trilokpati Tribedi, Pankaj Tiwari, Harish Jagat Pant, Rajesh Kumar Upadhyay

Poster_F3
Advance Process Modelling to Support Vision 2050 Reaction Engineering Roadmap
Stepan Spatenka, Sreekumar Maroor, Mayank Patel

Poster_F4
Hydrotalcite-Like Compounds as Catalyst Precursors for Tri-Reforming of Methane Process for Industrial Flue Gas Utilization
Rohit Kumar, K. K. Pant

Poster_F5
Novel technologies for chemical hydrogen storage with carbon dioxide
Susanne Lux, Matthaus Siebenhofer

Poster_F6
Acid-Mediated Strategy to Construct Oxygen-free Ir-Re Coordination for Matching Configuration of Glycerol to Selective Hydrogenolysis
Zheng Zhou, Yueqiang Cao, Jinghong Zhou, Xinggui Zhou

Poster_F7

Loading of Tin sulfide over Metal Organic Framework for boosting visible-light photocatalytic degradation of Norfloxacin
Shubham Raj, Amar Nath Samanta

Poster_F8

Triacetin hydrolysis by lipase: determination of optimum operational conditions and reaction kinetics
Darja Pecar, Nina Belina, Andreja Gorsek

Poster_F9

Mesokinetics as a tool bridging the microscopic-to-macroscopic transition to rationalize catalyst design
Wenyao Chen, Xuezhi Duan, Xinggui Zhou, De Chen, Weikang Yuan

Poster_F10

Catalytic degradation of polyethylene terephthalate
Darja Pecar, Urban Koler, Andreja Gorsek

Poster_F11

Impact of soot structure on oxygen reactivity
Antonio Raiolo, Claudius Stockinger, Ulrich Nieken

Poster_F12

Reactivity in Epoxidation: Comparison Between Soybean Oil and High Oleic Soybean Oil
Gustavo Olivieri, Jacyr de Quadros Jr., Luiz Felipe Ferreira, Guilherme Sapata, Dylan Karis, Reinaldo Giudici

Poster_F13

Construction of hierarchical pore-network in zeolite catalyst particles using superresolution single-molecule localization techniques
Mingbin Gao, Yuli Liu, Mao Ye, Zhongmin Liu

Poster_F14

Reverse micelle strategy for effective substitutional Fe-doping in small-sized CeO2 nanocrystals: adsorption and photodegradation efficiency of ibuprofen under visible light
Martino Di Serio, Rosanna Paparo, Olimpia Tammaro, Vincenzo Russo, Serena Esposito

Poster_F15

A new method for the evaluation of catalyst deactivation phenomena by the moving observer approach.
Andrea Pappagallo, Hugo Petremand, Tilman Schildhauer, Emanuele Moioli

Poster_F16

Thermodynamic study of pyrolysis and in line dry reforming of waste plastics for syngas production
Leire Olazar, Laura Santamaria, Santiago Orozco, Maria Cortazar, Enara Fernandez, Maite Artetxe, Gartzen Lopez

Poster_F17
Kinetic studies for Extraction of Rare Earths and Uranium from Rock Phosphate employing Organic Solvents (D2EHPA and TBP)

Poster_F18
Operando FT-IR spectroscopy analysis of NOx adsorption/desorption over Pd-doped zeolites: Effect of temperature, water and oxygen on NOx uptake and release
Y. Hamid, R. Matarrese, S. Morandi, L. Castoldi, L. Lietti

Poster_F19
Kinetic study for the methanation of CO2 and CO mixed syngas on a Ni/Al2O3 catalyst
Fabio Salomone, Alessio Tauro, Raffaele Pirone, Samir Bensaid

Poster_F20
Hydrodynamics in bubble column with internals: experiments and simulations
Xiaoping Guan, Ning Yang

Poster_F21
Lattice Boltzmann Model for Heterogeneous Reactions for Application in Soot Combustion
Claudius Stockinger, Antonio Raiolo, Ulrich Nieken, Mostafa Safdari Shadloo

Poster_F22
Modeling inulin depolymerization through a Monte Carlo based approach
Riccardo Tesser, Henrik Grenman, Tapio Salmi, Vincenzo Russo

Poster_F23
Dynamic 1D heterogeneous models for the simulation of CO2 hydrogenation to CH4 in a fixed bed reactor
Elena Gomez-Bravo, Jose Antonio Gonzalez-Marcos, Juan Ramon Gonzalez-Velasco, Benat Pereda-Ayo

Poster_F24
In-situ measurement of oxygen release from Ag/SrFeO3-δ materials for chemical looping catalysis
Alexander Harrison, Simon Fairclough, Beth Willneff, Andrew Britton, Ewa Marek

Poster_F25
Kinetic modeling of the reduction of pure iron oxide monolayer with hydrogen
Emiliano Salucci, Antonio D'Angelo, Vincenzo Russo, Henrik Grenman, Henrik Saxe'n

Poster_F26
To Dynamic or To Steady State: When does Non-Steady State Operation lead to Enhancement in the Catalytic Oxidation of Ethane?
Austin Morales, Michael P. Harold, Praveen Bollini

Poster_F27
Reduced order models for real-time simulations of packed-bed reactors with intra-particle diffusional effects
Bhaskar Sarkar, Ram R. Ratnakar, Vemuri Balakotaiah

Poster_F28
Quantification of surface reaction rate parameters using modulation excitation spectroscopy-phase sensitive detection
Gas-solid reactions for the removal of hydrogen halides: a critical review in the light of novel challenges in flue gas cleaning applications
Carmela Chianese, Alessandro Dal Pozzo, Valerio Cozzani

Effect of Kneading Conditions on the Textural Properties of Heterogeneous Catalyst Supports
Mathilde Auxois, Marine Miniere, Chloe Bertrand-Drira, Jan Verstraete, Thibaut Divoux, Sebastien Manneville

Modeling Alumina Supports by Means of 3D Pore Network Models
Gabriel Ledezma, Jan J. Verstraete, Loic Sorbier, Damien Leinekugel-Le Cocq, Elsa Jolimatre, Christian Jallut

Fluidization of Wet Particles: Flow, Heat and Mass Transfer
Qiushi Xu, Xiaoping Guan, Ning Yang

Optimization of Slurry Loop Reactors by Understanding the Complex Mesoscale Behaviors of swelling particles
Qiushi Xu, Xiaoping Guan, Ning Yang

Paradox of Catalyst Deactivation: How to Extend the Catalyst Life Intensifying the Catalytic Cycle
Zoe J. G. Gromotka, Gregory S. Yablonsky, Nickolay M. Ostrovskii Denis Constales

Comparative Study of a Variety of Surfactant-Modified Micro-Mesporous ZSM-5 Catalysts for Enhanced Cracking Ability
Muhammad R Usman, Abdullah Ramzan

Carbon dioxide hydrogenation to methanol in a tubular packed-bed chemical reactor: an unsteady particle-resolved CFD simulation in 3D
Pawel Winiarski, Arpad Toldy, Marko Korhonen, Ville Vuorinen, Annuka Santasalo-Aarnio

Screening of the potential reuse of air pollution control residues from different industries as alternative CO2 sorbents in the calcium looping process
Carmela Chianese, Alessandro Dal Pozzo, Valerio Cozzani

Insights into Precursor Chemistry and Efficiency of Cu/MgO Catalysts for CO2 Hydrogenation to Methanol
Meenakshi Pokhriyal, Aakash Bhardwaj, Sreedevi Upadhyayula
Illustrating the effect of physicochemical properties within vitrinite and inertinite on residual carbon formation in drop tube furnace
Hua Ma1, Yonghui Bai, Xiaoyong Men, Qingyun Wang, Xudong Song, Peng Lv, Jiaofei Wang, Guanghua Lu, Guangsuo Yu

Poster_F40

Absorption of CO2 by a two reactions system: how to access the kinetics constant of the main reaction?
Arnaud Delanney, Alain Ledoux, Lionel Estel, Gabriela Ciriacol Villegas

Poster_F41

Study of the deposition characteristics of particles on the slag wall of a gasifier
Guangsuo Yu, Jingyun Bai, Xudong Song, Yonghui Bai, Jiaofei Wang, Weiguang Su

Poster_F42

Robust Mechanism Discovery with Atom Conserving Chemical Reaction Neural Networks
Felix Doepel, Martin Votsmeier

Poster_F43

Decomposition of Ethylene carbonate on imidazolium ionic liquid-zinc halide composite catalysts: Active site and mechanism
Zhen-Yang Lu, Zhuo Li, Ji-Xuan Duan, Xue-Gang Li, Cheng-Wei Liu, Wen-De Xiao

Poster_F44

Effect of hydrothermal carbonization on woody biomass: From structure to reactivity
Lu Ding, Qinghua Guo, Yan Gong, Guangsuo Yu, Fuchen Wang

Poster_F45

MOFs for Photocatalytic Water Splitting and Carbon Dioxide Conversion
Chenhao Li, Federica Zanka, James McGregor, Sergio Vernuccio, Peyman Z. Moghadam

Poster_F46

Effect of oxidation treatment on structural characteristics and combustion kinetics of residual carbon from coal gasification fine slag
Qinghua Guo, Liang Ren, Lu Ding, Yan Gong, Guangsuo Yu, Fuchen Wang

Poster_F47

Hybrid Synthesis Route for Stable and Swellable Lignin Nanoparticles
Rossella Grappa, Virginia Venezia, Brigida Silvestri, Giuseppina Luciani, Aniello Costantini

Poster_F48

Bimetallic alloy palladium catalysts for acetylation of propene: Study on the promotion mechanism
Yong Yan, Cheng-Wei Liu, Xue-Gang Li, Wen-De Xiao

Poster_F49

Autothermal and Tri reforming of methane at High Temperature and Elevated Pressure under nickel spinelized pellets prepared from a metallurgical residue.
Muhammad Irfan Malik, Nicolas Abatzoglou, Ines Esma Achouri, Elyssar Samaha

Poster_F50

Lan Nguyen, Roshan Mangal Bhattarai, Young Sun Mok
Mechanistic studies on bubble and droplet dynamics in turbulent flows
Vikash Vashisth, Ronnie Andersson

H2 Generation by Rotational Gliding Arc Plasma from Ammonia Decomposition
Oai Vu Quoc, Avik Denra, Shirjana Saud, Young Sun Mok

Ammonia Cracking in Atmospheric Plasma Discharge for Clean H2 Production
Avik Denra, Oai Vu Quoc, Young Sun Mok

Reaction Rate Analysis of Chemical Vapor Deposited Bi-based Perovskite Thin Film
Ziguang Yang, Keito Togami, Maika Tanabe, Shoma Kimura, and Motoaki Kawase

Evaluation of gas sorption performances of iron oxide and nickel oxide doped ZIF-8 materials
Fulya Kumbetlioglu, Beyza Evgin, Ayten Ates

(Sub-)Network analysis of the enzymatic depolymerization of PET
Tobias Heinks, Igor Gamm, Katrin Hofmann, Martin Gerlach, Jan von Langermann, Christof Hamel

Determination of effective parameters for pseudo homogeneous packed bed reactor modelling using particle resolved CFD simulations
Sebastian Ulmer, Julian Skagfjord Reinhold, Hans-Jorg Zander

Effect of supercritical water gasification conditions on properties of ZrO2
Ayten Ates Osman Mert

Modeling of Unconventionally Catalytic Heated Reactors
Maxwell P. Bobbin, Arun Senthil Sundaramoorthy, Dionisios G. Vlachos

Dynamic changes of NH3 oxidation activity over Pt/Al2O3: an experimental and modelling study for automotive applications
Bono Riccardo, Uglietti Riccardo, Keitl Gordon, Scheuer Alexander, Dreizler Andreas, Votsmeier Martin

Influence of Oxygen Vacancy in Ni-supported Ceria Nanorod Surface on CO2 Methanation: Ab-initio Thermodynamics-based Study
Soham Roy, Jithin John Varghese

Simulating Catalyst Deactivation in Ethylbenzene Dehydrogenation
Matthias Feigel, Johanna Fernengel, Michael Balakos, Yuma Kuraguchi, Nobuaki Kodakari
Experimental Characterisation of Metallic Iron Oxidation
Benedetta A. De Liso, Clement Chanut, Gianmaria Pio and Ernesto Salzano

Kinetic study of methanol by-products formation on an industrial catalyst under real reaction conditions
Matteo Guiotto, Udo Armbruster, Stefano Ravasio, Pierdomenico Biasi

Sequential deposition of FeNC - Cu tandem CO2 reduction electrocatalysts towards the low overpotential production of C2+ alcohols
Nattaphon Hongrutai, Saurav Ch. Sarma, Mary P. Ryan, Joongjai Panpranot, Jesus Barrio

Bridging molecular modelling, thermodynamics and kinetics (B)

Experimental-Computational Coupled Kinetic Model for Oxygen Transfer in Catalyst-Metal-oxide System for Chemical Looping Epoxidation
Xiaoyu Dai, Joseph Gebers, Ewa Marek

Exploiting the Underlying Relationships Between Apparent Kinetic Parameters and Surface Coverages
Fernando Vega-Ramon, Christopher Hardacre, Dongda Zhang

A DFT Study on the Mechanism of Photocatalytic Nitrogen Reduction
Taja Zibert, Matej Hus, Blaz Likozar

A new generation of sulfiding agents - Towards a better understanding of the decomposition chemistry of polysulfides
Cato Pappijn, Georgios Bellos

Reaction class-based kinetic model development and automated validation: polycyclic aromatic hydrocarbons growth in toluene and methylnaphthalene oxidation
Luna Pratali Maffei, Niccolo Fanari, Matteo Pelucchi Timoteo Dinelli, Tiziano Faravelli

Tunable transesterification of dimethyl carbonate with ethanol on K2CO3/Al2O3 catalysts: Study on the mechanism and kinetics
Cheng-Wei Liu, Wen-De Xiao

Solubility of Nitric Oxide from combustion gases in different absorption solutions
Nataly Castro-Ferro, Luis Vaquerizo
Determination of kinetic parameters within laboratory scale for polypropylene process modelling.
Anna Konopka, Matthias Feigel, Richard W. Fischer, Olaf Hinrichsen

**Poster_B9**

Synthesis of TiO₂ nanotubes for photocatalytic degradation of drugs

**Poster_B10**

Understanding the Solvent and Particle Morphology Effects in Furfural Acetalization Reaction on Pd Nanostructures
Pallavi Deorao Dandekar, Govind Porwal, Tuhin Suvra Khan, M. Ali Haider, C. P. Vinod, Shelaka Gupta

**Poster_B11**

Revealing Kinetics Parameters for Delignification of Oil Palm Empty Fruit Bunch through Ozonolysis Pre-treatment via Sparse Nonlinear Optimizer
Zahidah Husna Hassan, Amnani Shamjuddin, Wan Nor Nadyaini Wan Omar, Pavitra Thevi Arndand, Mohd. Asmadi Mohammed Yussuf, Nor Aishah Sáidina Amin, Sharul Nizam Hasan, Himiyage Chaminda, Hemaka Badulsena

**Poster_B12**

From ideal gas to liquids and supercritical solvents: expanding the applicability of detailed kinetic models through a ML-based equation of state
Francisco Carlos Paes, Romain Privat, Jean-Noel Jaubert, Baptiste Sirjean

**Poster_B13**

Sensitivity Analysis of One-Dimensional Multiphysics Simulation of CO₂ Electrolysis Cell
Harry Dunne, Weiming Liu, Mohammad Reza Ghaani, Kim McKelvey, Stephen Dooley

**Poster_B14**

Rational design of optimal catalysts to produce sustainable fuels from olefin oligomerization
Smitha Gopinath, Sergio Vernuccio

### Multiphase reactors and new reaction media (M)

**Poster_M1**

Fluidized Bed Scale Up for Sustainability Challenges
Ray Cocco, Jia Wei Chew

**Poster_M2**

Modeling fluidized bed reactors for thermochemical storage systems based on calcium looping
Maria anna Murmura, Antonio Brasiello

**Poster_M3**

Batch-to-continuous transposition of three-phase reactions involved in hydrogen storage in liquid organic carriers
Carine Julcour, Anne-Marie Billet, Sofiane Bekhti, Priyanka Gairola, Duncan Edel

**Poster_M4**

Design of a fountain confined conical spouted bed reactor for biomass torrefaction
Xabier Sukunza, Maider Bolanos, Mikel Tellabide, Idoia Estiati, Roberto Aguado, Martin Olazar

Poster_M5
From gas-phase to liquid-phase hydroformylation over a solid rhodium catalyst
Maria Herrero Manzano, Jeroen Poissonnier, Sebastien Siradze, Joris W. Thybaut

Poster_M6
Sustainable, highly selective and metal free thermal depolymerization of poly-(3-hydroxybutyrate) to bio-crotonic acid in recoverable ionic liquids
Piotr Jablonski, Santosh Govind Khokarale, Johan Warna, Dariush Nikjoo, Jyri-Pekka Mikkola, Knut Irgum

Poster_M7
Towards understanding the interfacial mass transfer during CO2 capture: Basic Flow Forms of Twin-Liquid Films with Counter-current Gas Shear
Long He, Hanguang Xie, Yuan Zong, Ling Zhao, Gance Dai

Poster_M8
Catalytic membrane contactors for methanol conversion to dimethyl ether
Elisa Avruscio, Massimo Migliori, Enrico Catizzone, Girolamo Giordano, Giuseppe Barbieri, Adele Brunetti

Poster_M9
Hydrothermal carbonization of construction wood waste into a valuable product
Sajad Ahmadi, Velma Kimbi Yaah, Riku-Pekka Nikula, Tiina Laitinen, Satu Ojala, Mika Ruusunen, Matti Salmela, Marleena Hagner, Lea Hiltunen

Poster_M10
Modelling W/O/W double emulsions preparation in static mixers with shear-thinning dispersed phase
Noureddine Lebaz, Kristy Touma, Ranim Chakleh, Fouad Azizi, Nida Sheibat-Othman

Poster_M11
Effect of SBA-15 intermediate layer of hydrogen permeation of porous alumina-supported palladium membrane
Abhishek Anand, Rahul Sharma, Sweta, Satya Vir Singh, Rajesh Kumar Upadhyay

Poster_M12
Flow regime, gas holdup and volumetric mass transfer coefficient in slurry bubble column with different liquids and solids: An experimental study
Praneet Mishra, Ashutosh Yadav

Poster_M13
Mathematical model of biomass fast pyrolysis in fluidized bed
Maurizio Troiano, Roberto Solimene, Piero Salatino

Poster_M14
Electrochemical CO2 conversion to elementary carbon in binary Li-Ca carbonate
Emma Laasonen, Anafi Nur'Aini, Alireza Charmforoushan, Vesa Ruuskanen, Markku Niemela, Tuomas Koiranen, Jyrki M. Makela

Poster_M15
Multi-compartmental simulation of actinides and lanthanides oxalic precipitation in a vortex reactor in the nuclear energy context
Cristian Camilo Ruiz Vasquez, Murielle Bertrand, Isabelle Ramiere

Poster_M16

Similarities in the Hydrodynamic Operation of a Bubble Column with Aqueous Solutions of Alcohols and Salts
Stoyan Nedeltchev

Poster_M17

Study on Ni-based mono and bimetallic catalysts supported on alumina and ceria support for steam reforming of heavy oil
Anamika Maurya, Rajesh K Upadhyay, Sweta Sharma

Poster_M18

Experimental Investigation of CO2 Loss in a Membrane Electrode Assembly-Anion Exchange Membrane Cell.
Weiming Liu, Harry Dunne, Mohammad R. Ghaani, Kim McKelvey, Stephen Dooley

Poster_M19

Multiscale Modeling Of Biomass Pyrolysis In A Multiphase Reactor: The Effect Of Particle Scale Models On The Secondary Gas-Phase Reactions
Balivada Kusum Kumar, Himanshu Goyal

Poster_M20

Synthesis of a Trimetallic Catalyst for Steam Reforming of Methane to Produce On-Site Ultra-Pure Hydrogen through Membrane Reformer
Anjali Baudh, Rahul Sharma, Sweta Sharma, Rajesh K Upadhyay

Poster_M21

Thermocatalytic Dehydrogenation Of Plastic Wastes Assisted By ZnCl2-Based Molten Salts
Claudia Prestigiacomo, Dennis Ruvio, Najwa Hamdi, Tony Picaro, Onofrio Scialdone, Alessandro Galia

Poster_M22

Performance and analysis of continuous reactor for hydrothermal carbonization
Charles J. Coronella, Saeed Vahed Qaramaleki

Poster_M23

Multi-scale modelling of a fixed bed catalytic reactor: development of a simplified 1D model enhanced with 3D CFD multiphysics simulations.
Liantsoa Randriambololona, Arnaud Cockx, Philippe Schmitz, Marie-Jose Huguet, Olivier Peruch

Poster_M24

Simulation of Droplet Dispersion in a Stirred Tank Using a Probability-Based Droplet Breakup Approach
Jingchang Zhang, Xiaoping Guan, Ning Yang

Poster_M25

Accelerated Machine Learning Model for Biomass Gasification in Fluidized Beds
Mohnin Gopinath M, Racha Varun Kumar, Himanshu Goyal

Poster_M26
Effect of acid and basic pretreatment on the performance of hydrothermal liquefaction of sewage sludge
Claudia Prestigiacomo, Elisa Ciccarello Cicchino, Onofrio Scialdone, Alessandro Galia
**Poster_M27**

Homogenization Time and Axial Dispersion in Bubble Column
Mark Terentyak, Sandra Orvalho, Pavel Zeman, Maria Zednikova
**Poster_M28**

Modelling the dispersed phase holdup in a pulsed disc and doughnut liquid-liquid extraction columns (PDDC) using the Volume of Fluid (VOF) method
Vivekananda Sinha, Marc Pera Titus
**Poster_M29**

Experimental and computational investigation of fluid flow and solid transport in split-and-recombine oscillatory flow reactors for organic chemistry in water
Filippo Nanto, Sandor B. Oltvos, C. Oliver Kappe, Paolo Canu
**Poster_M30**

Upscaling bubbling fluidized bed reactors for strongly exothermic methanation
Tilman Schildhauer, Martin Kuenstle, Tanja Wieseler, Julian Indlekofer, Robert Janz, Daniel Erne, Philipp Riechmann, Andreas Gantenbein
**Poster_M31**

Evolution of gas - solid binary fluidized bed reactor and investigate the flow dynamics behavior using radioactive particle tracer methods
Anusha Yajurvedi, Vishalkumar Rajabhai Khernar, Harish Jagat Pant, Rajesh Kumar Upadhyay
**Poster_M32**

Novel low pressure and temperature production technology of propylene oxide from oxygen, hydrogen and propene in a trickle-bed reactor
Christoph Schmidt, Matias Alvear, Francesco Sandri, Seo Mandon, Mika Lastusaari, Ilari Angervo, Tapio Salmi

**New reactor structures: from micro to milli and macro (N)**

**Poster_N1**
FAME synthesis by transesterification reaction using a vibromixer
Sara Almasi, Luca Schembri, Joelle Aubin, Martine Poux

**Poster_N2**
Pure methane from CO2 utilizing a structured radial flow reactor system employing a novel bi-functional material
Pablo Gangotena, Christian Frilund, Pekka Simell

**Poster_N3**
Impact of Soot Loading on CO Oxidation in Catalytic Particulate Filters with Various Coating Structures
Richard Knopp, Miroslav Blazek, Petr Koci, Andrew York
**Poster_N4**
Mitigating Electrowetting in a CO2 Electrolyzer by Using a Non-Conductive Gas Diffusion Layer
Robert Haaring, Jae Won Lee, Junpyo Lee, and Hyunjoo Lee

Poster_N5
Synthetic and Kinetic Study of Ni/ZrO2-coated Wires for the Electrified Steam Reforming of Methane
Meghana Idamakanti, Ram R. Ratnakar, Praveen Bollini

Poster_N6
Structured 3D-Printed Single-Atom Catalysts for Continuous Photocatalytic Applications
Jiachengjun Luo, Vincenzo Ruta, Oleksii Nevskyi, Jody Albertazzi, and Gianvito Vile'

Poster_N7
Impact of Confinement in Core@Shell Arrangements on Particle Size Effects in the Fischer-Tropsch synthesis
Kerstin Wein, Robert Guettel

Poster_N8
Copper microreactors for O2 tolerant SI-ATRP synthesis of polymer brush films
N. Scott Lynn Jr., Volkan Cirik, Monika Spasovova, Marketa Vrabcova, Hana Vaischerova-Lisalova

Poster_N9
Pressure drop measurements of woodpile structures with variable macroporosity and outer surface area
Sebastian Wilmes, Olaf Hinrichsen

Poster_N10
Forced Periodic Operation of Methanol Synthesis: Experimental Determination of Reactor Outlets
Lothar Kaps, Wieland Kortuz, Johannes Leipold, Daliborka Nikolic, Achim Kienle, Andreas Seidel-Morgenstern

Process dynamics and safety (D)

Poster_D1
Experimental Characterization of the Oxidation of PHBV in Flammable Solvents
Benedetta A. De Liso, Gianmaria Pio, Ernesto Salzano

Poster_D2
Operational limits in e-methanol production with variable hydrogen feed
Viet Hung Nguyen, Arto Laari, Tuomas Koiranen

Poster_D3
Rapid online analysis of diesel-range Fischer-Tropsch products via APCI mass spectrometry
Jonas Wentrup, Jorg Thoming

Poster_D4
Low-temperature performance enhancement by periodic operation of three-way catalysts for controlling emissions of hybrid electric vehicles
Daniel Hodonj, Steffen Tischer, Patrick Lott, Olaf Deutschmann
**Poster D5**
Data-driven System Identification for Silver Nanoparticle Production in Modular Reactors
Ganapavarapu Sai Tarun, Rohan Saswade, Nirav Bhatt, and Sridharakumar Narasimhan

**Poster D6**
Study on the application of laser diagnosis technology in the rapid real time measurement of soot
Xudong Song, Yonghui Bai, Weiguang Su, Jiaofei Wang, Peng Lv, Guangsuo Yu

**Poster D7**
Dynamic simulation and analysis of a packed bed reactor for methanol steam reforming to hydrogen for shipboard fuel cells
Bojan Grenko, Lindert van Bier, Robert van de Ketterij, Wiebren de Jong

**Process intensification in reaction engineering (P)**

**Poster P1**
Process intensified CO2 conversion to sustainable aviation fuel (SAF) via a zeolite membrane reactor
Deborah T. Braide, Christopher Panaritis, Gregory Patience, Daria Camilla Boffito

**Poster P2**
Techno-economic evaluation of bio-hydrogenated diesel production from palm fatty acid distillate and refined palm stearin using recycled stream of alkane product as solvent
Chaiwat Prapainainar, Suwimol Wongsakulphasatch, Paweena Prapainainar, Kandis Sudsakorn, Worapon Kiatkittipong, Suttichai Assabumrungrat

**Poster P3**
Kinetics of hydrochloric acid leaching of Gallium from zinc plant residues
Partha Pratim Mondal, Nikita Deshwal, Shaikh Z. Ahammad, Rohan Jain

**Poster P4**
Heterogeneous reaction kinetics and transport modeling in catalytic foam
Minaz Makhania and Sreedevi Upadhyayula

**Poster P5**
Microkinetic study of selective glucose oxidation - monometallic or bimetallic catalyst?
Zan Lavric, Janvit Terzan, Ana Kroflic, Janez Zavasnik, Joanna Elzbieta Olszowka, Stefan Vajda, Matej Hus, Miha Grilc, Blaz Likozar

**Poster P6**
Pushing the boundaries of ammonia synthesis - An approach to evaluate the potential of in situ product removal towards full single-pass conversion
Theresa Kunz, Johannes Geri, Robert Guettel

**Poster P7**
Design and experimental assessment of novel 3D-printed catalyst geometries: Pressure drop and heat transfer characterization of baffled logpile structures
Timothy van Lanen, Leon R.S. Rosseau, Ivo Roghair, Martin van Sint Annaland

**Poster P8**
Dual production of high-purity hydrogen and synthesis gas using integrated sorption-enhanced steam reforming of methane with in-situ CO2 utilization
Napasrapee Hemsap, Suwimol Wongsakulphasatch, Olaf Hinrichsen, Suttichai Assabumrungrat

Poster_P9

Simulation study of emulsion feeding technology in RFCC riser reactor
Yunpeng Zhao, Xiaogang Shi, Xingying Lan, Jinsen Gao

Poster_P10

Intensified POCS structured supports with optimized cell and streamlined strut shape for mass-transfer limited catalytic applications
Claudio Ferroni, Mauro Bracconi, Matteo Ambrosetti, Matteo Maestri, Gianpiero Groppi, Enrico Tronconi

Poster_P11

Mastering Particle Design: Advanced Catalyst Shaping with Top and Bottom Spray Fluidized Bed Methods
Ali M. Alkadhem, Hend Omar Mohamed, Shekhar R Kulkarni, Torsten Hoffmann, Diego Zapater, Valentina E. Musteata, Evangelos Tsotsas, Pedro Castano

Poster_P12

Carbon dioxide capture by a process of concrete rubble carbonation
Malo Tollet, Amine Bourouina, Emilie Gagniere, Noureddine Lebaz, Elodie Chabanon, Geraldine Agusti, David Edouard

Poster_P13

Insights into reaction-diffusion behaviors of n-butane partial oxidation on catalyst pellet
Yao Shi, Xuezhi Duan

Poster_P14

Hydroisomerization of Hexane over Pt modified H-Beta Zeolite Extrudate Catalysts: Bifunctional Catalysis and Reaction Mechanisms
N. Kumar, Z. Vajglova, M. Peurla, K. Semikin, D. Sladkovskiy, D. Yu. Murzin

Poster_P15

Comparative study on the flow and mass transfer characteristics of sub-millimeter bubbles and conventional bubbles in gas-liquid two-phase flow
Yizhou Cui, Linxiao Zhai, Shuyu Liu, Xiaogang Shi, Jinsen Gao, Xingying Lan

Poster_P16

Facilitating the depolymerization of polyamide 6 (PA6) by ultrasound and microwave assistance using CaCl2-EtOH-H2O mixture for polymer dissolution
Ruben Goldhahn, Ann-Joelle Minor, Liisa K. Rihko-Struckmann, Kai Sundmacher

Poster_P17

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