ISCRE28 16-19.6.2024

Poster programme.

The topics of the conference are listed below, and the posters are organized accordingly.

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)

Raghav S. Soni, Hitarth K. Thakkar, Krish T. Dedhia, Pushpito K. Ghosh, Ashwin W. Patwardhan

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-Î´ 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

Zhaofeng Li, Michael Patrascu

Poster_F29

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

Poster_F30

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

Poster_F31

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

Poster_F32

Fluidization of Wet Particles: Flow, Heat and Mass Transfer

Qiushi Xu, Xiaoping Guan, Ning Yang

Poster_F33

Optimization of Slurry Loop Reactors by Understanding the Complex Mesoscale Behaviors of swelling particles

Qiushi Xu, Xiaoping Guan, Ning Yang

Poster_F34

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

Poster_F35

Comparative Study of a Variety of Surfactant-Modified Micro-Mesoporous ZSM-5 Catalysts for Enhanced Cracking Ability

Muhammad R Usman, Abdullah Ramzan

Poster_F36

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, Annukka Santasalo-Aarnio

Poster_F37

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

Poster_F38

Insights into Precursor Chemistry and Efficiency of Cu/MgO Catalysts for CO2 Hydrogenation to Methanol

Meenakshi Pokhriyal, Aakash Bhardwaj, Sreedevi Upadhyayula

Poster_F39

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 Ciriaco 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 Doeppel, 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

Development of Oxygen-Functionalized Iron-Nickel Sulfide on Nickel Foam for Supercapacitors.

Lan Nguyen, Roshan Mangal Bhattarai, Young Sun Mok

Poster_F51

Mechanistic studies on bubble and droplet dynamics in turbulent flows

Vikash Vashisth, Ronnie Andersson

Poster_F52

H2 Generation by Rotational Gliding Arc Plasma from Ammonia Decomposition

Oai Vu Quoc, Avik Denra, Shirjana Saud, Young Sun Mok

Poster_F53

Ammonia Cracking in Atmospheric Plasma Discharge for Clean H2 Production

Avik Denra, Oai Vu Quoc, Young Sun Mok

Poster_F54

Reaction Rate Analysis of Chemical Vapor Deposited Bi-based Perovskite Thin Film

Ziguang Yang, Keito Togami, Maika Tanabe, Shoma Kimura, and Motoaki Kawase

Poster_F55

Evaluation of gas sorption performances of iron oxide and nickel oxide doped ZIF-8 materials

Fulya Kumbetlioglu, Beyza Evgin, Ayten Ates

Poster_F56

(Sub-)Network analysis of the enzymatic depolymerization of PET

Tobias Heinks, Igor Gamm, Katrin Hofmann, Martin Gerlach, Jan von Langermann, Christof Hamel

Poster_F57

Determination of effective parameters for pseudo homogeneous packed bed reactor modelling using particle resolved CFD simulations

Sebastian Ulmer, Julian Skagfjord Reinhold, Hans-Jorg Zander

Poster_F58

Effect of supercritical water gasification conditions on properties of ZrO2

Ayten Ates Osman Mert

Poster_F59

Modeling of Unconventionally Catalytic Heated Reactors

Maxwell P. Bobbin, Arun Senthil Sundaramoorthy, Dionisios G. Vlachos

Poster_F60

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

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Influence of Oxygen Vacancy in Ni-supported Ceria Nanorod Surface on CO2 Methanation: Ab-initio Thermodynamics-based Study

Soham Roy, Jithin John Varghese

Poster_F62

Simulating Catalyst Deactivation in Ethylbenzene Dehydrogenation

Matthias Feigel, Johanna Fernengel, Michael Balakos, Yuma Kuraguchi, Nobuaki Kodakari

Poster_F63

Experimental Characterisation of Metallic Iron Oxidation

Benedetta A. De Liso, Clement Chanut, Gianmaria Pio and Ernesto Salzano

Poster_F64

Kinetic study of methanol by-products formation on an industrial catalyst under real reaction conditions

Matteo Guiotto, Udo Armbruster, Stefano Ravasio, Pierdomenico Biasi

Poster_F65

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)

Poster_B1

Experimental-Computational Coupled Kinetic Model for Oxygen Transfer in Catalyst-Metal-oxide System for Chemical Looping Epoxidation

Xiaoyu Dai, Joseph Gebers, Ewa Marek

Poster_B2

Exploiting the Underlying Relationships Between Apparent Kinetic Parameters and Surface Coverages

Fernando Vega-Ramon, Christopher Hardacre, Dongda Zhang

Poster_B3

A DFT Study on the Mechanism of Photocatalytic Nitrogen Reduction

Taja Zibert, Matej Hus, Blaz Likozar

Poster_B4

A new generation of sulfiding agents - Towards a better understanding of the decomposition chemistry of polysulfides

Cato Pappijn, Georgios Bellos

Poster_B5

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

Poster_B6

Tunable transesterification of dimethyl carbonate with ethanol on K2CO3/Al2O3 catalysts: Study on the mechanism and kinetics

Cheng-Wei Liu, Wen-De Xiao

Poster_B7

Solubility of Nitric Oxide from combustion gases in different absorption solutions

Nataly Castro-Ferro, Luis Vaquerizo

Poster_B8

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

Andrea Agustin-Reyna, E. G. Zamora-Rodea, Karina Isidro- Hernandez, I. Hernandez-Perez, J.A. Colin-Luna

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

Zhahidah Husna Hassan, Amnani Shamjuddin, Wan Nor Nadyaini Wan Omar, Pavitra Thevi Arnandan, Mohd. Asmadi Mohammed Yussuf, Nor Aishah Saidina 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. OItvos, 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 Vaisocherova-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 Biert, 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

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