

Reaction Chemistry & Engineering

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IN THIS ISSUE

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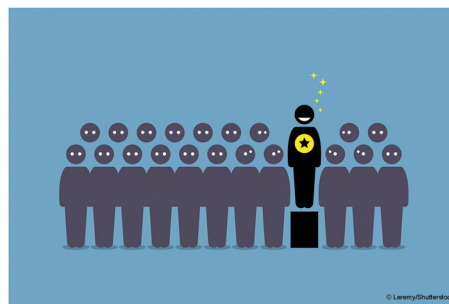
Cover

See Pedro Castaño et al., pp. 2107–2119.
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EDITORIAL

1993

Outstanding Reviewers for *Reaction Chemistry & Engineering* in 2023

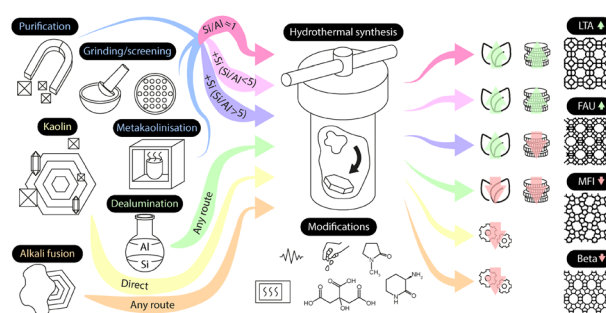


REVIEW

1994

Green and low-cost synthesis of zeolites from kaolin: a promising technology or a delusion?

Ivan M. Zdretsov* and Andrey M. Gerasimov



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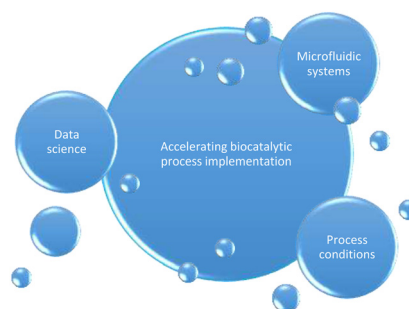


MINI REVIEW

2028

Biocatalysis in microfluidic systems: an experimental basis for data science

John M. Woodley

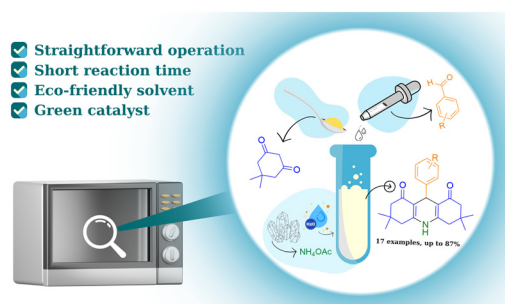


PAPERS

2034

High-yield, fast, and green synthesis of acridine derivatives using a Co/C catalyst from rice husks with a microwave-assisted method

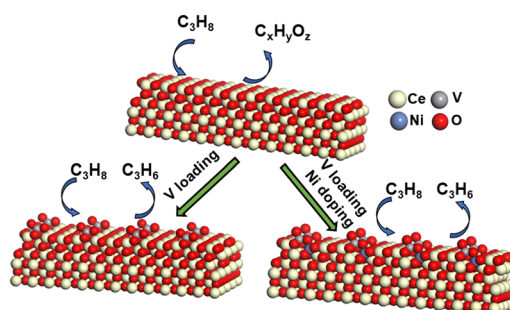
Phat Ngoc Nguyen, Gia-Linh Ngoc Nguyen, The-Anh Trinh Duong, Mai-Phuong Thi Le, Linh Phi Nguyen, Jinsoo Kim, Phuong Hoang Tran, Huynh-Hoa Thi Truong* and Hai Truong Nguyen*



2050

Understanding the impact of small vanadia clusters and their coverage effects on undoped and Ni-doped ceria nanorod supports on propane oxidative dehydrogenation

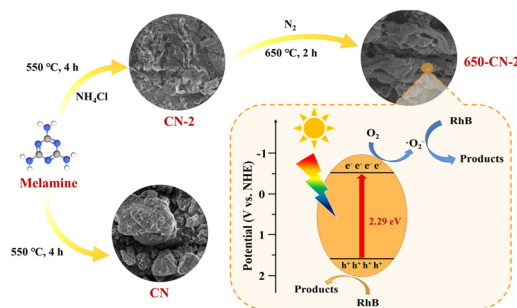
Anoop P. Pushkar and Jithin John Varghese*



2066

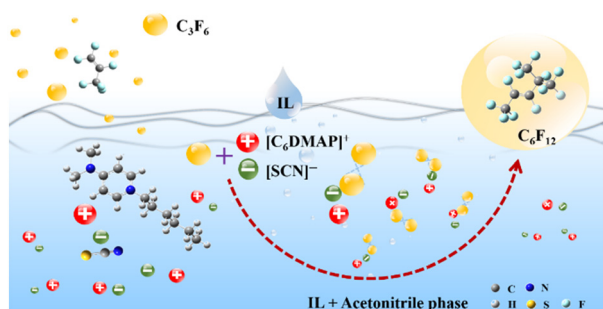
Synthesis and photocatalytic performance investigation of an NH₄Cl-assisted two-step calcination method for modified g-C₃N₄

Xinyue Zhang, Lin Yuan, Yu Zhang, Xinyu Shu, Renjie Li, Qunfen Deng, Zilong Zhang and Rui Yang*



PAPERS

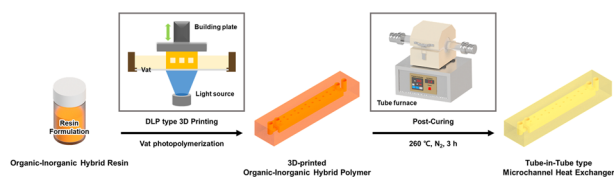
2078



Efficient dimerization of perfluoroolefin catalyzed by strong nucleophilic bifunctional ionic liquids

Minmin Liu, Bingxi Song, Yanhui Hu, Xianglei Meng, Renzheng Jiang, Yanyan Diao* and Yuting Song*

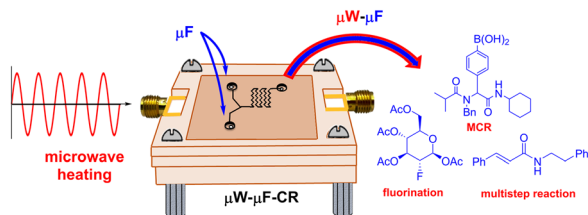
2089



Parameter investigation of an organic–inorganic hybrid resin for a 3D-printed microchannel heat exchanger

Sunjae Lee, Amirreza Mottafegh and Dong-Pyo Kim*

2098

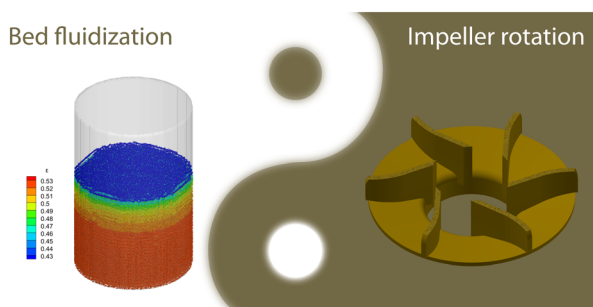


- ✓ Highly modular setup/reactor
- ✓ Broader range of frequencies
- ✓ Easy assembly
- ✓ High heating rates

Highly modular PDMS microwave-microfluidic chip reactor for MAOS applications

Laura Y. Vázquez-Amaya, Matko Martinic, Bart Nauwelaers, Erik V. Van der Eycken, Tomislav Markovic and Upendra K. Sharma*

2107



Coupling catalytic bed fluidization with impeller rotation for improved hydrodynamic characterization of Berty reactors

Mengmeng Cui, Shekhar R. Kulkarni, Yacoub-Yousef Abu-Naaj, Stefan Wagner, Claudia Berger-Karin, Jan Lennart Weber, Anton Nagy and Pedro Castaño*

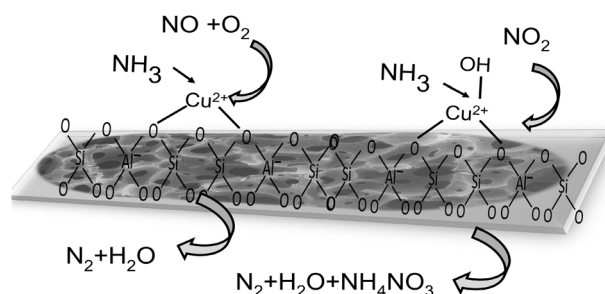


PAPERS

2120

Experimental investigation of mass transfer and pressure drop in NH_3 SCR over self-supporting Cu-ZSM-5 foam

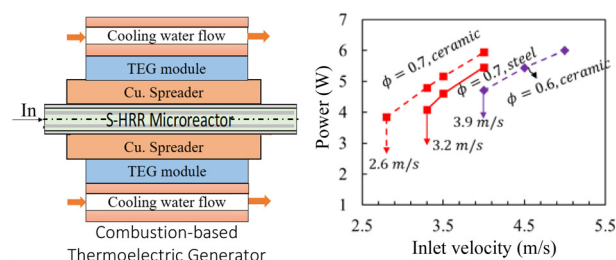
Risha Raju,* Prabhakaran K., Kuruvilla Joseph and A. Salih



2135

Design of microcombustor–thermoelectric coupled device using a CFD-based multiphysics model for power generation

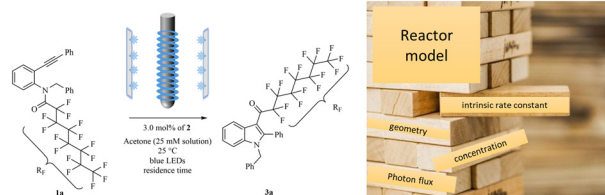
Neha Yedala and Niket S. Kaisare*



2149

Extraction of the intrinsic rate constant for a photocyclization reaction in capillary microreactors using a simplified reactor model

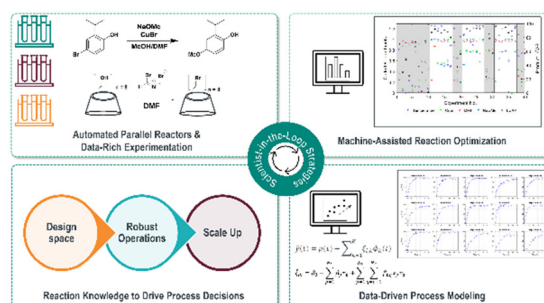
Jun Li,* Helena Šimek Tosino, Bradley P. Ladewig, Nicole Jung, Stefan Bräse and Roland Dittmeyer



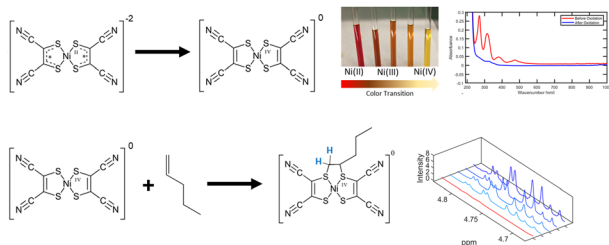
2160

Accelerating reaction optimization through data-rich experimentation and machine-assisted process development

Jonathan P. McMullen* and Jon A. Jurica



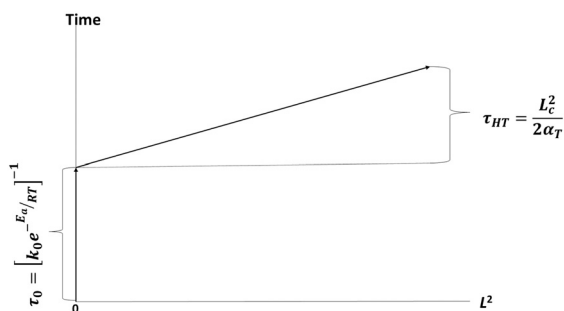
2171



Understanding electrochemically induced olefin complexation: towards electrochemical olefin–paraffin separations

Toshihiro Akashige, Ramraj Vemuri,
César A. Urbina Blanco and Miguel A. Modestino*

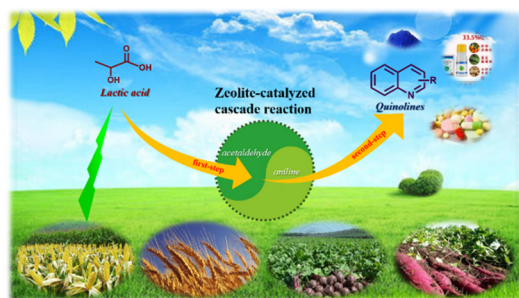
2180



Pyrolysis and gasification of 5–20 mm tyre rubber cubes under carbon dioxide flow

Arnold Alexander Jansen,* Jabulani Selby Gama,
Izak Jacobus van der Walt
and Philippus Lodewyk Crouse*

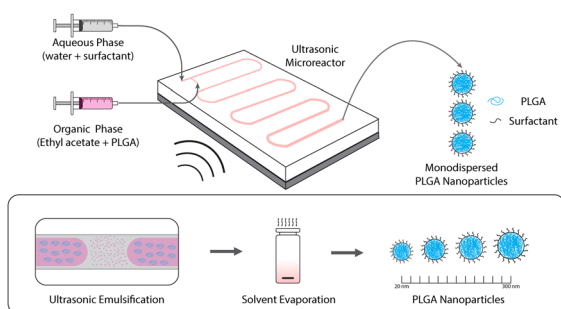
2197



Catalytic cascade gas-phase heterocyclization of lactic acid and aniline into quinolones over mesoporous H β zeolite

Jun-Jie Liang, Fen Wu, Zi-Tuo Chen, Tao Xiang,
Chu-Hui Wang, Li-Jun Li, Cong-Shan Zhou and An Li*

2208



Microfluidic synthesis of PLGA nanoparticles enabled by an ultrasonic microreactor

Aniket Pradip Udepurkar, Laura Mampaey,
Christian Clasen, Victor Sebastián Cabeza*
and Simon Kuhn*

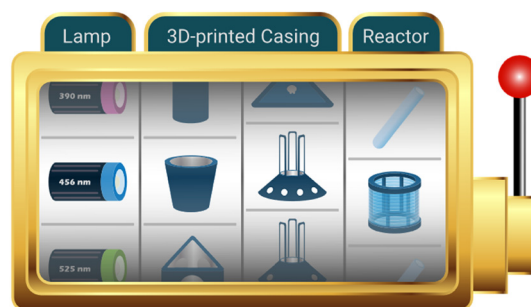


PAPERS

2218

Open-source 3D printed reactors for reproducible batch and continuous-flow photon-induced chemistry: design and characterization

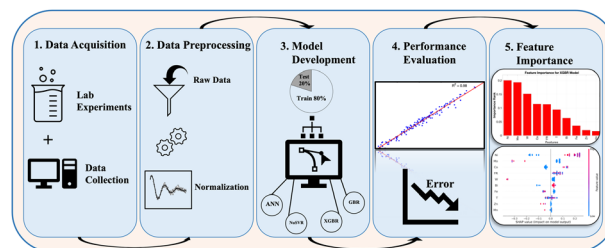
Tom M. Masson, Stefan D. A. Zondag,
Jasper H. A. Schuurmans and Timothy Noël*



2226

Intelligent chemometric modelling of Al_2O_3 supported mixed metal oxide catalysts for oxidative dehydrogenation of *n*-butane using simple features

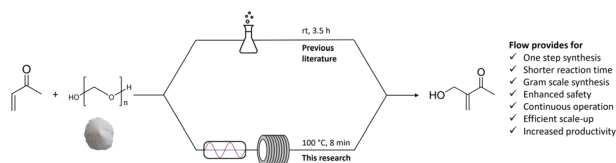
Ridhwan Lawal, Hassan Alasiri, Abdullah Aitani,
Abdulazeez Abdulraheem and Gazali Tanimu*



2240

Development of a solid-compatible continuous flow reactor for the paraformaldehyde slurry mediated α -hydroxymethylation of methyl vinyl ketone

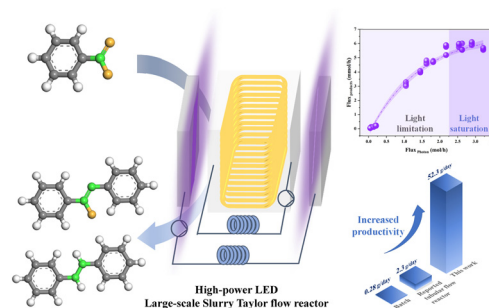
Bavo Vandekerckhove,* Lise Van Coillie,* Bert Metten,
Thomas S. A. Heugebaert and Christian V. Stevens

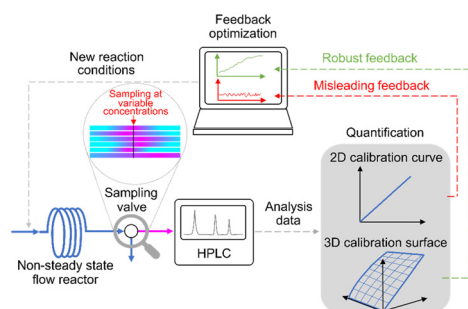


2249

Scale-up of slurry Taylor flow microreactor for heterogeneous photocatalytic synthesis of azo-products

Runjuan Du, Yuhang Chen, Zhiming Ding,
Chuanting Fan, Gang Wang, Jie Zhang*
and Zhiyong Tang*





Expanding analytical horizons: 3D HPLC calibration surfaces for micromole scale self-optimizing flow reactors

Maëva Vallet, Daniel Cortés-Borda* and François-Xavier Felpin*

