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### **REVIEW**

# Non-fouling flow reactors for nanomaterial synthesis

Maximilian O. Besenhard, Sayan Pal, Georgios Gkogkos and Asterios Gavriilidis\*

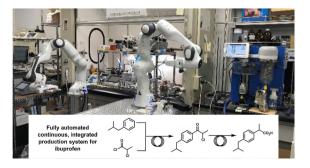


### **COMMUNICATIONS**

978

Development of a fully automated continuous, integrated production system for all reaction processes of ibuprofen

Akichika Itoh,\* Tomoka Tanemura, Norihiro Tada and Eiji Yamaguchi



# Maria Southall

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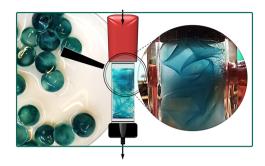


# COMMUNICATIONS

### 984

A 3D printable synthetic hydrogel as an immobilization matrix for continuous synthesis with fungal peroxygenases

Lars-Erik Meyer, Dorottya Horváth, Sonja Vaupel, Johanna Meyer, Miguel Alcalde and Selin Kara\*

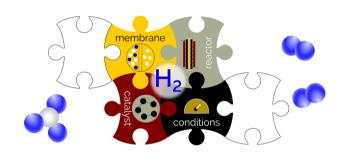


# **PAPERS**

# 989

Modeling-aided coupling of catalysts, conditions, membranes, and reactors for efficient hydrogen production from ammonia

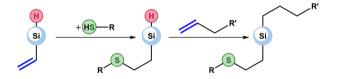
Natalia Realpe, Shekhar R. Kulkarni, Jose L. Cerrillo, Natalia Morlanés, Gontzal Lezcano, Sai P. Katikaneni, Stephen N. Paglieri, Mohammad Rakib, Bandar Solami, Jorge Gascon and Pedro Castaño\*



### 1005

Sequential hydrothiolation-hydrosilylation: a route to the creation of new organosilicon compounds with preset structures

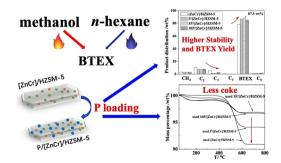
Ilya Krizhanovskiy, Maxim Temnikov,\* Fedor Drozdov, Alexander Peregudov and Anton Anisimov



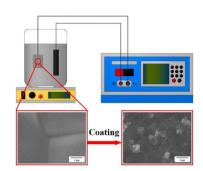
# 1015

Enhanced aromatics selectivity and stability in a coaromatization reaction over P/[ZnCr]/HZSM-5

Junmin Lv, Dan Wang, Bing Zhu, Haibo Li, Subing Fan\* and Tian-sheng Zhao



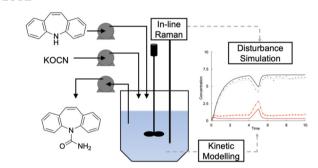
### 1023



Electrodeposition of activated carbon on Ni foam for monolithic catalysts and intensification of hydrogenation performance in a micropacked bed

Chi Ma, Wei Liu, Fengyan Lou, Chenghao Zhang and Jisong Zhang\*

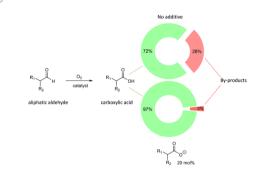
1032



Development of a continuous synthesis process for carbamazepine using validated in-line Raman spectroscopy and kinetic modelling for disturbance simulation

Matthew Glace, Wei Wu, Harrison Kraus, David Acevedo, Thomas D. Roper and Adil Mohammad\*

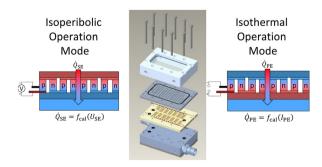
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Selective aerobic oxidation of aliphatic aldehydes: the critical role of percarboxylate anion on the selectivity

Laurent Vanoye and Alain Favre-Réguillon\*

1051



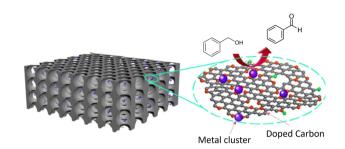
Design and characterization of a flow reaction calorimeter based on FlowPlate® Lab and Peltier

Timothy A. Frede,\* Nils vom Hofe, Rafael Jasper Reuß, Niklas Kemmerling, Tobias Kock, Frank Herbstritt and Norbert Kockmann\*

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Enhanced activation of persulfate improves the selective oxidation of alcohols catalyzed by earthabundant metal oxides embedded on porous N-doped carbon derived from chitosan

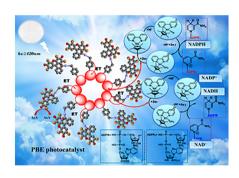
Rafael L. Oliveira,\* Marcin Pisarek, Karolina A. Ledwa, Grzegorz Pasternak and Leszek Kepinski



### 1072

Polystyrene-based eosin-Y as a photocatalyst for solar light-mediated NADH/NADPH regeneration and organic transformations

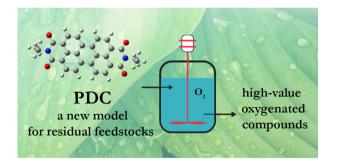
Pooja Singh, Surabhi Chaubey, Chandani Singh, Satyam Singh, Rajesh K. Yadav,\* Atul P. Singh, P. D. Subhash, Dhanesh Tiwari, Navneet K. Gupta and Tae Wu Kim\*



# 1083

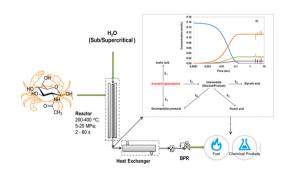
Thermo-oxidative conversion of PDC as a molecular model of residual feedstocks to oxygen-rich chemicals

Redhwan Al-Akbari, Maryam Razi, Ismail Badran and Nashaat N. Nassar\*

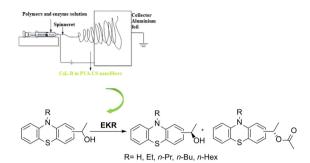


Reaction pathways and kinetics of N-acetyl-Dglucosamine hydrolysis in sub- and supercritical

Sphurti P. Kulkarni, Sunil S. Joshi and Amol A. Kulkarni\*

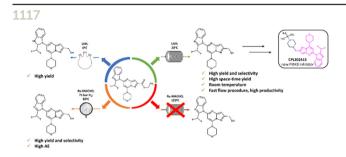


# 1109



# A robust and efficient lipase based nanobiocatalyst for phenothiazinyl-ethanol resolution

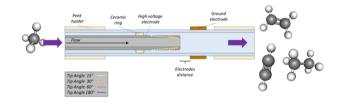
Cristina-Georgiana Spelmezan, Gabriel Katona, László Csaba Bencze, Csaba Paizs and Monica Ioana Toşa\*



# Development and optimization of a continuous flow ester reduction with LiAlH4 in the synthesis of a key intermediate for a PI3Kδ inhibitor (CPL302415)

Stanisław Michałek,\* Anna M. Maj,\* Lidia Gurba-Bryśkiewicz, Wioleta Maruszak, Marcin Zagozda, Zbigniew Ochal, Krzysztof Dubiel and Maciej Wieczorek

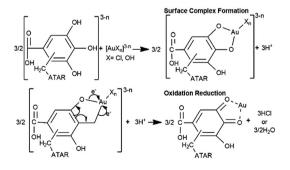
### 1125



# On design of plasma jet reactor for non-oxidative methane conversion

Giulia De Felice, Sirui Li,\* Fausto Gallucci, Nima Pourali and Evgeny Rebrov

### 1134



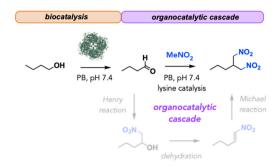
# Synthesis of an ethylene diamine modified tannin polymer and recovery of gold(III) ions from electronic wastes

Engin Deniz Parlar, Özge Özten, Abdulkadir Kızılaslan and Mustafa Can\*

### 1152

# One-pot cascade reactions for the synthesis of dinitroalkanes in aqueous buffer

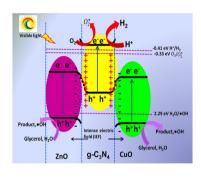
Kelsey N. Stewart, Kendyll G. Hawkins, Campbell M. Andersen and Dylan W. Domaille\*



### 1159

# Dual S-scheme ZnO-g-C<sub>3</sub>N<sub>4</sub>-CuO heterosystem: a potential photocatalyst for H2 evolution and wastewater treatment

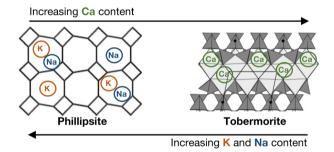
Irshad Ahmad,\* Shazia Shukrullah, Muhammad Yasin Naz and Hag Nawaz Bhatti



### 1176

# Metal cations as inorganic structure-directing agents during the synthesis of phillipsite and tobermorite

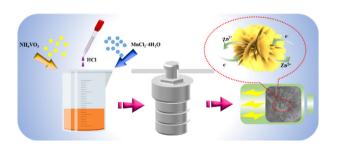
Juan Carlos Vega-Vila, Advait Holkar, Ross A. Arnold, Dale P. Prentice, Shiqi Dong, Longwen Tang, Erika Callagon La Plante, Kirk Ellison, Aditya Kumar, Mathieu Bauchy, Samanvaya Srivastava,\* Gaurav Sant and Dante Simonetti\*



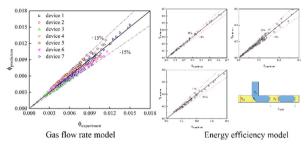
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Morphology modulation and electrochemical performance properties of Mn-decorated  $(NH_4)_2V_{10}O_{25}\cdot 8H_2O$  as a cathode material for aqueous zinc-ion batteries

Lingjiang Kou, Yong Wang, Jiajia Song,\* Taotao Ai,\* Koji Kajiyoshi,\* Panya Wattanapaphawong and Jintao Wang



# 1192



To design gas-liquid Taylor flow T-juntion microreactor

# A general design procedure for gas-liquid Taylor flow T-junction microreactors

Yu Chang, Lin Sheng, Jian Deng and Guangsheng Luo\*

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On the Brønsted acid-catalyzed aza-Michael reaction of isoxazol-5-ones to enones: reaction optimization, scope, mechanistic investigations and scale-up

Marcelo M. de Siqueira, Pedro P. de Castro,\* Juliana A. dos Santos, Leonã S. Flores, Walysson F. de Paiva, Sergio A. Fernandes and Giovanni W. Amarante\*