# **Reaction Chemistry & Engineering**

# Bridging the gap between chemistry and chemical engineering rsc.li/reaction-engineering

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# Cover

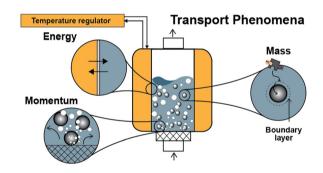
See Kalina Peneva, Dirk Ziegenbalg et al., pp. 2967-2983. Image reproduced by permission of Daniel Kowalczyk from React. Chem. Eng., 2023, 8, 2967.

#### **REVIEW**

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Transport phenomena in solid phase synthesis supported by cross-linked polymer beads

Sebastián Pinzón-López, Mathias Kraume, José Danglad-Flores\* and Peter H. Seeberger

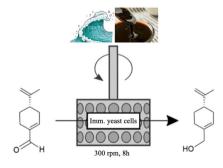


### COMMUNICATION

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Boosting the catalytic performance of a marine yeast in a SpinChem® reactor for the synthesis of perillyl alcohol

Silvia Donzella, Concetta Compagno, Francesco Molinari, Francesca Paradisi\* and Martina Letizia Contente\*



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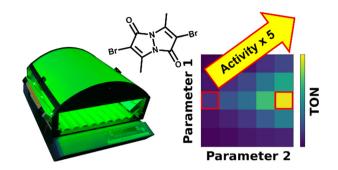
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#### 2967

Making photocatalysts screenable – a milliscale multi-batch screening photoreactor as extension for the modular photoreactor

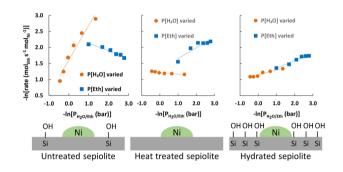
Daniel Kowalczyk, Gergely Knorr, Kalina Peneva\* and Dirk Ziegenbalg\*



#### 2984

Investigation of support effects during ethanol steam reforming over a Ni/sepiolite catalyst

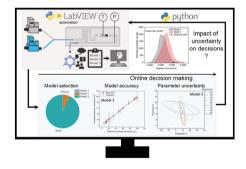
Marinela D. Zhurka, James A. Anderson, Alan J. McCue, Angeliki A. Lemonidou and Panagiotis N. Kechagiopoulos\*



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Autonomous kinetic model identification using optimal experimental design and retrospective data analysis: methane complete oxidation as a case study

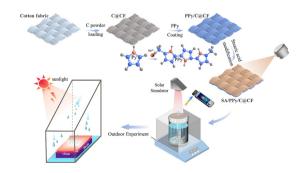
Arun Pankajakshan, Solomon Gajere Bawa, Asterios Gavriilidis\* and Federico Galvanin\*



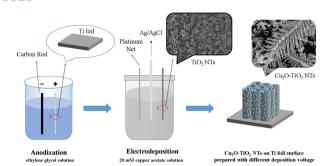
#### 3018

Salt-tolerant, scalable Janus fabric evaporators for desalination and multi-species wastewater purification

Zhi-Jie Zhang, Zhi-Bo Zhang, Jun Zeng, Shan Ma, Min Chen, Dan Zhou, Yong Yan, Zhi Chen,\* Cong-Ming Tang and Jun-Qiang Xu

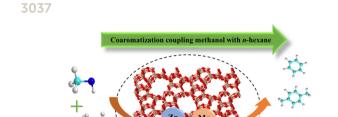


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# Fabrication of Cu<sub>2</sub>O-loaded TiO<sub>2</sub> nanotubes with heterojunctions via an electrochemical method: enhanced photocatalytic activity

Peng Qiao, Xueqin Wang,\* Jiangling Liu, Yanxiu Liu,\* Man Dai, Rui Piao, Ying Liu, Wenyi Wang, Yuanyuan Wang and Hua Song



# Influence of Mo modification on coaromatization coupling methanol with n-hexane over [Zn,Mo]/ **HZSM-5** catalysts

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

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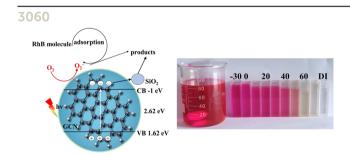


[Zn,Mo]/HZ-5

 $Y_{\rm BTEX} = 64.0\%$ 

Green synthesis of the copper and iron phthalocyanine-based metal-organic framework as an efficient catalyst for methylene blue dye degradation and oxidation of cyclohexane

Rupali S. Bhise, Yogesh A. Patil and Ganapati S. Shankarling\*



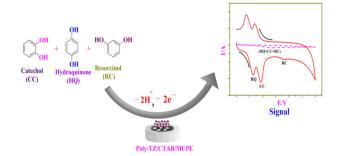
Efficient photocatalytic degradation of ultra-high concentration printing and dyeing wastewater using a SiO<sub>2</sub>/GCN nanocomposite

Jinyuan Zhu, Yingying Zhu,\* Yifan Zhou, Chaoran Li, Geng Chen and Xinbao Li

#### 3071

Synergetic effects of a poly-tartrazine/CTAB modified carbon paste electrode sensor towards simultaneous and interference-free determination of benzenedial isomers

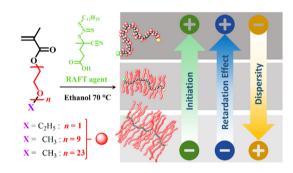
Amit B. Teradale, Kailash S. Chadchan, Pattan-Siddappa Ganesh, Swastika N. Das\* and Eno E. Ebenso



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PEGMAs with short and long side chains: what is the effect in the formation of stars and brushes by RAFT polymerization?

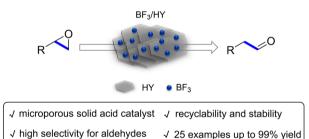
Priscila Quiñonez-Angulo, Claude St. Thomas, Hortensia Maldonado-Textle, Ángel Licea-Claveríe, Enrique Saldívar-Guerra and Iván Zapata-González\*



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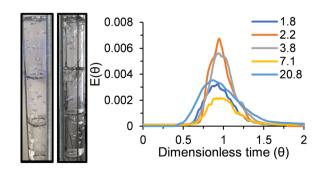
## BF<sub>3</sub>/HY as a microporous solid acid catalyst for regioselective ring-opening of epoxides

Yi-Xuan Yao, Hong-Wei Zhang, Chang-Bo Lu, Xue Wang, Shi-Dong Zhao, Hong-Yan Shang\* and Yuan-Yu Tian\*

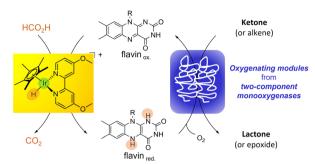


Characterising flow with continuous aeration in an oscillatory baffle flow reactor using residence time distribution

Rylan Cox,\* Konstantinos Salonitis, Susan A. Impey and Evgeny Rebrov



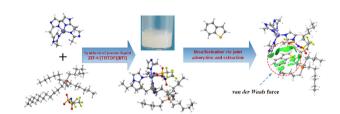
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Hybrid catalysis for enantioselective Baeyer-Villiger oxidation and stereoselective epoxidation: a Cp\*Ir complex to fuel FMN and FAD reduction for flavoprotein monooxygenase modules

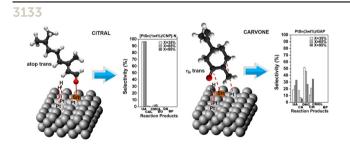
Robert Röllig,\* Caroline E. Paul, Pierre Rousselot-Pailley, Selin Kara\* and Véronique Alphand\*

#### 3124



Desulfurization of diesel via joint adsorption and extraction using a porous liquid derived from ZIF-8 and a phosphonium-type ionic liquid

Chenhua Shu,\* Min Zhao, Hua Cheng, Yajie Deng, Pierre Stiernet, Niklas Hedin and Jiayin Yuan\*



Hydrogenation of citral and carvone on Pt and PtSn supported metallic catalysts. A comparative study on the regioselectivity and chemoselectivity

Gustavo Enrique Ramos Montero,\* Julieta Paola Stassi, Sergio Rubén de Miguel and Patricia Daniela Zgolicz

#### 3150

$$C \equiv O + CI - CI \qquad Cat \qquad CI \qquad CI \qquad C$$

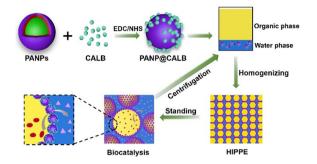
Operational parameters relevant to the examination of phosgene synthesis catalysis

Rory Hughes, Giovanni E. Rossi and David Lennon\*

#### 3162

Enzyme-modified amphiphilic polymer nanoparticles as high-performance Pickering interface biocatalysts

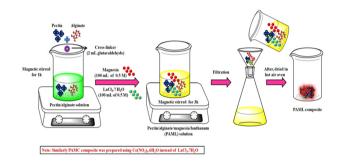
Zhengqiao Yin, Chuangbang Xu, Bowei Liu, Xiucai Liu and Shengmiao Zhang\*



#### 3171

Micro-encapsulation of rare earth metal ion-doped magnesia-based alginate/pectin hybrid polymeric composites for defluoridation of water

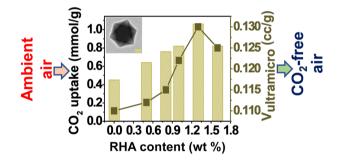
Antonysamy Jeyaseelan, Natrayasamy Viswanathan,\* Ilango Aswin Kumar and Mohammad Rafe Hatshan



#### 3185

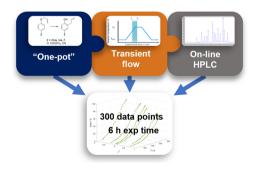
Direct CO<sub>2</sub> capture from simulated and ambient air over silica-rich MIL-101(Cr)

Vaishnavi Kulkarni and Sanjay Kumar Singh\*

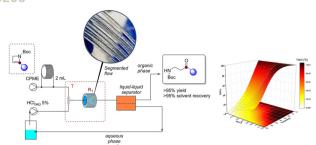


An efficient multiparameter method for the collection of chemical reaction data via 'one-pot' transient flow

Linden Schrecker, Joachim Dickhaut, Christian Holtze, Philipp Staehle, Andy Wieja, Klaus Hellgardt and King Kuok (Mimi) Hii\*



# 3203



Sustainable continuous flow synthesis of β-aminocarbonyls via acid-catalyzed hydration of **N-Boc-2-azetines** 

Michael Andresini, Marco Colella, Roberta Savina Dibenedetto, Elena Graziano, Giuseppe Romanazzi, Andrea Aramini, Leonardo Degennaro\* and Renzo Luisi\*

### CORRECTION

### 3210

Correction: Investigation of support effects during ethanol steam reforming over a Ni/sepiolite catalyst

Marinela D. Zhurka, James A. Anderson, Alan J. McCue, Angeliki A. Lemonidou and Panagiotis N. Kechagiopoulos\*