

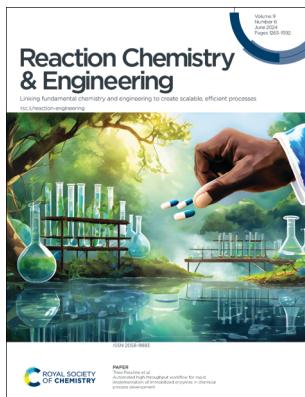
# Reaction Chemistry & Engineering

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### Cover

See Theo Peschke et al.,  
pp. 1325–1333.  
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*React. Chem. Eng.*, 2024,  
9, 1325.

## REVIEWS

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### Efficient removal of dibutyl phthalate from aqueous solutions: recent advances in adsorption and oxidation approaches

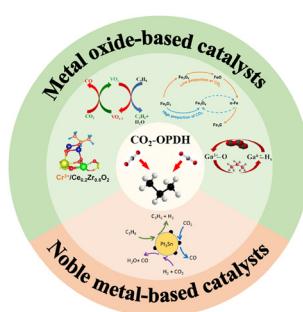
Yaqi Wang, Jiawei Wu, Wenju Zhang, Linyun Zhong,  
Dan Zhang,\* Siqi Yan\* and Junyou Shi



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### Recent progress in the development of catalysts for propane dehydrogenation in the presence of CO<sub>2</sub>

Kai-Xin Li, Xin Cai, Hong-Bin Liu, Xin-Yu Liu,  
Yu-Ling Shan,\* Xiang Feng\* and De Chen





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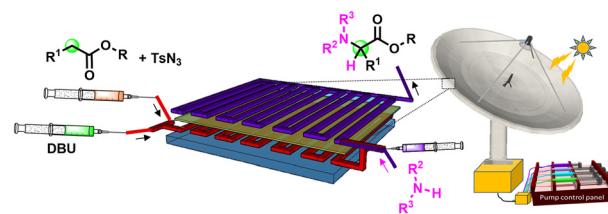


## COMMUNICATIONS

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**Thermal/photochemical micro-flow probe system for direct C–H bond functionalization of biologically active molecules**

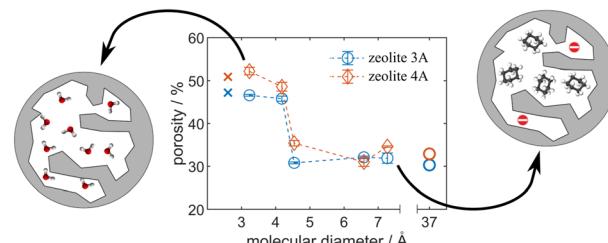
Abhilash Rana, Ruchi Chauhan and Ajay K. Singh\*



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**Insights into molecular accessibility in catalyst and sorbent materials using NMR porosity measurements**

J. A. Ward-Williams, C. M. Guédon, M. D. Mantle, A. J. Sederman and L. F. Gladden\*

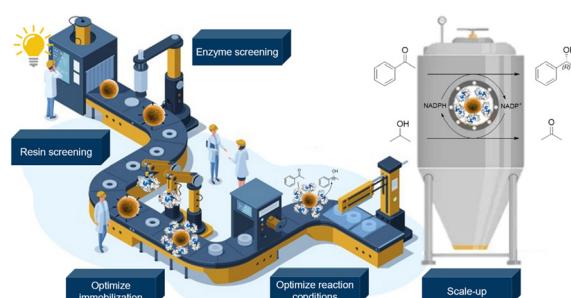


## PAPERS

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**Automated high throughput workflow for rapid implementation of immobilized enzymes in chemical process development**

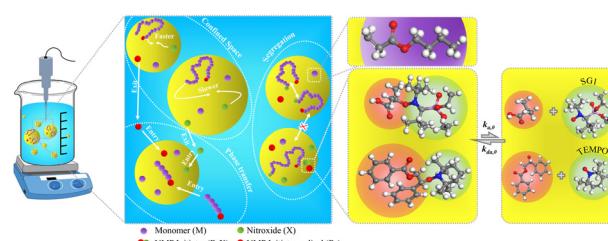
Lukas Schober, Philippe Dreier and Theo Peschke\*



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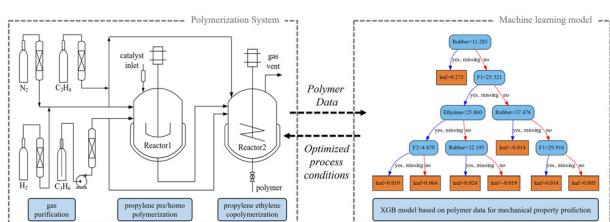
**Comparing SG1 and TEMPO for NMP of *n*-butyl acrylate in miniemulsion to optimize the average particle size for rate and molecular control**

Elnaz Zeinali, Yoshi W. Marien,\* Mariya Edeleva, Sean R. George, Michael F. Cunningham, Dagmar R. D'hooge and Paul H. M. Van Steenberge



## PAPERS

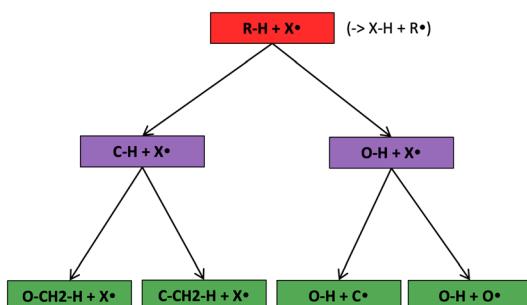
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## Machine learning for revealing the relationship between the process–structure–properties of polypropylene in-reactor alloys

Shaojie Zheng, Xu Huang, Jijiang Hu and Zhen Yao\*

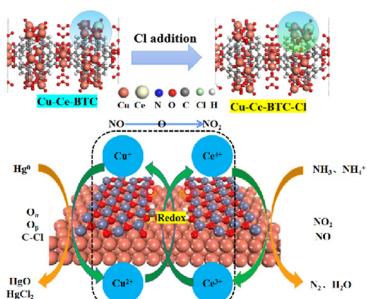
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## A machine learning based approach to reaction rate estimation

Matthew S. Johnson and William H. Green\*

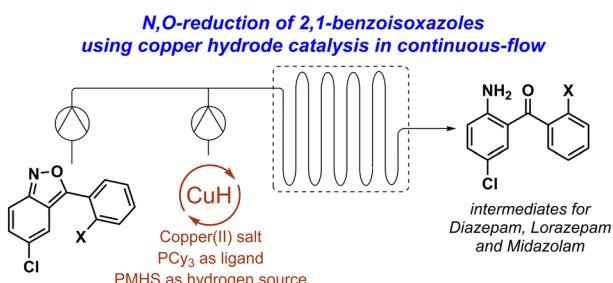
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## In situ construction of halogen MOF bifunctional catalysts for synergistic removal of $NO$ and $Hg^0$

Shu Hao, Fu Jiaju, Liu Yuling\* and Wang Yinhe

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## Continuous-flow copper hydride-catalyzed reduction of 2,1-benzisoxazoles

Cristian Cavedon, Sarah Jane Mear, Austin Croke and Timothy F. Jamison\*

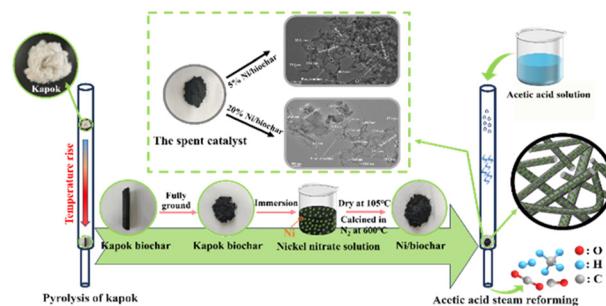


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## Steam reforming of acetic acid over nickel/kapok-derived biochar: the effect of nickel exposure on the evolution of reaction intermediates and coke formation

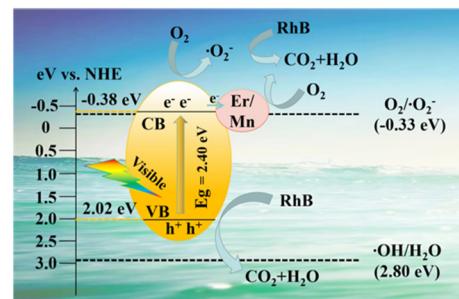
Lihua Wang, Yunyu Guo, Sobia Kousar, Shu Zhang, Yi Wang, Song Hu, Jun Xiang and Xun Hu\*



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## Enhanced visible light photocatalytic performance of Er, Mn co-doped monoclinic BiVO<sub>4</sub> for efficient organic pollutant degradation

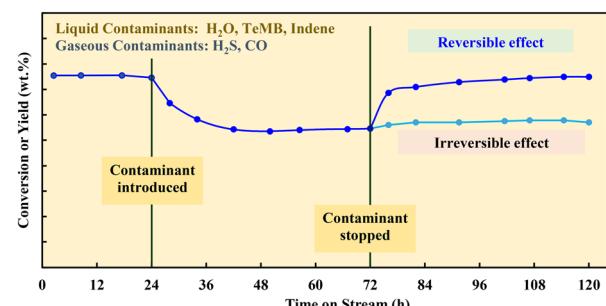
Shan Huang, Jiajia Liu, Lingxin Kong, Mengmeng Wang, Yi Liu, Yi Fang\* and Qi Xiao\*



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## Influence of feed contamination on the conversion of heavy reformate and toluene over a composite hierarchical zeolite catalyst

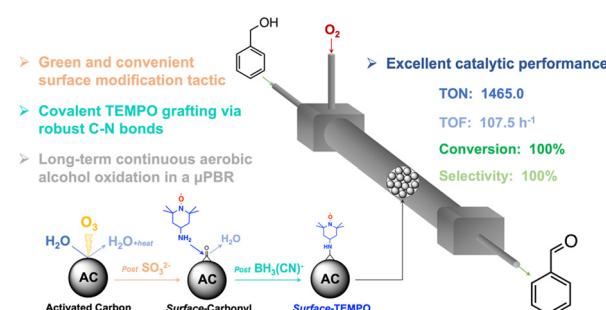
Syed A. Ali,\* Ziyauddin S. Qureshi, Veera Venkata R. K. Tammana, Ali N. Jishi, Mohammed AlAmer and Thamer A. Mohammad



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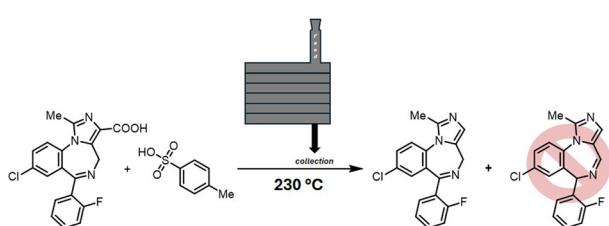
## Synthesis of a sustainable and robust heterogeneous TEMPO catalyst utilizing activated carbon for aerobic alcohol oxidation

Jing Luo, Chenghao Zhang, Wei Liu, Yingying Li, Bingqi Xie and Jisong Zhang\*



## PAPERS

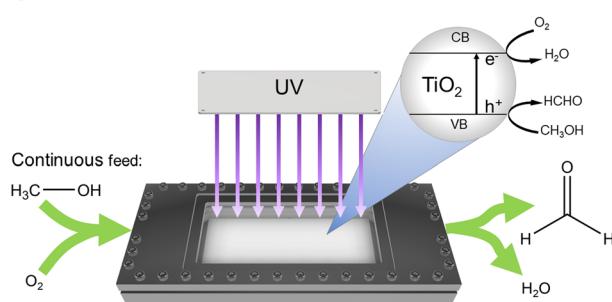
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### Development of a continuous melt reactor for an acid-mediated decarboxylation

Gordon Brezicki, Josef M. Maier, Julian P. Chesterman, Saad Bux, Brenden T. Herrera, Eric Van Dyke, Wesley Niswander, Jacob Saxon, Luke Rogers\* and D. Tyler McQuade\*

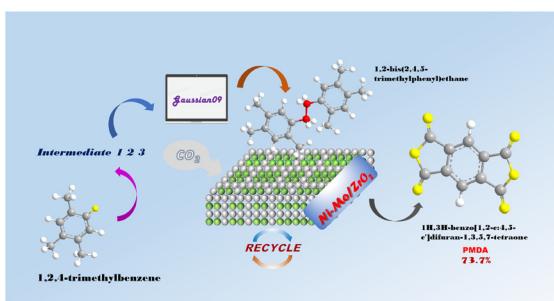
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### Photocatalytic methanol oxidation to formaldehyde in a continuous laboratory plant over Aerioxide P25

Florian Stubenrauch, Markus Schörner, Andreas Bösmann, Patrick Schühle and Peter Wasserscheid\*

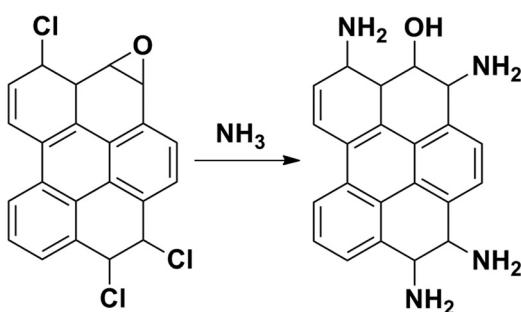
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### A new synthetic method: pyromellitic dianhydride preparation by $\text{Ni-Mo/ZrO}_2$ catalytic oxidation

Shibo Pang, Baicheng Feng, Huifen Xin, Fei Song, Zhiguo Lv, Yan Jin\* and Zhida Zhang

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### Design and synthesis of ammonia-modified reduced graphene oxide possessing more amino groups for methylene blue adsorption

Chubei Wang,\* Jianwei Zhou, Fangfang Duo, Liangliang Chu, Mingliang Zhang, Chao Xu, Yanwei Zhao, Shuai Liu and Sitian Li

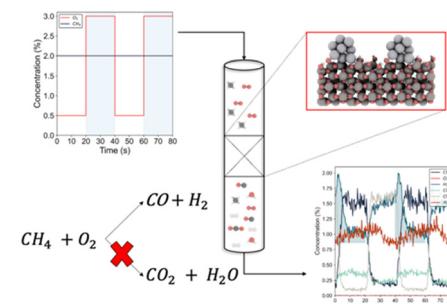


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**Methane partial oxidation under periodic reaction conditions on Pt/Al<sub>2</sub>O<sub>3</sub>**

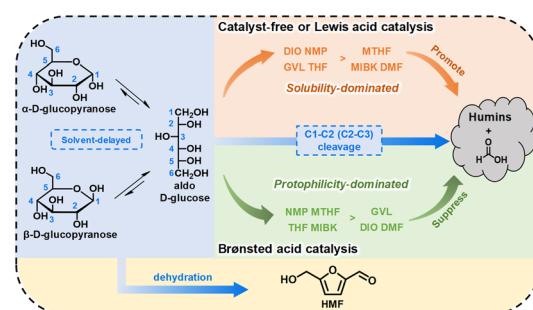
Surya Pratap S. Solanki, Zhuoran Gan, Silvia Marino, Robert J. Davis, William S. Epling\* and Lars C. Grabow\*



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**A universal solvent effect on the formation of soluble humins in glucose dehydration to 5-hydroxymethylfurfural**

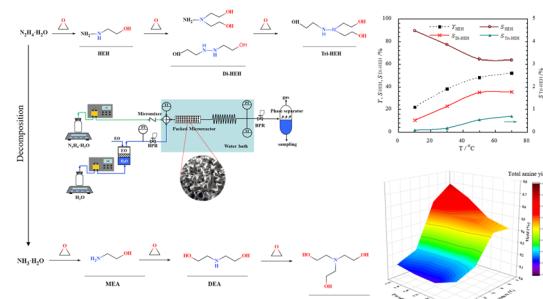
Hui Li, Hanyun Min, Yexin Hu, Ping Hu, Linzhen Li, Huaqing Yang, Changwei Hu and Liangfang Zhu\*



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**Continuous flow synthesis of  $\beta$ -hydroxyethyl hydrazine in microreactors: process behavior and impurity formation mechanism**

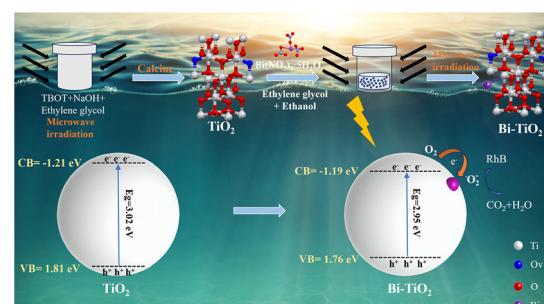
Haiyun Ma, Chaoqun Yao, Fengjun Jiao, Shuainan Zhao, Yuchao Zhao and Guangwen Chen\*



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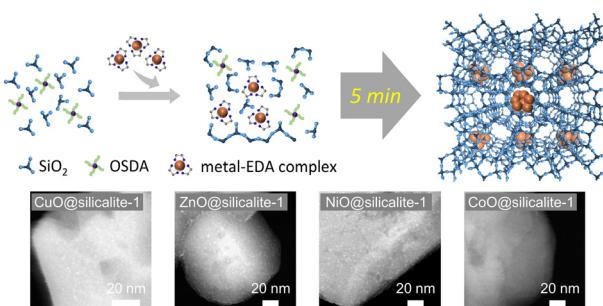
**Microwave-assisted synthesis of oxygen vacancy associated Bi-TiO<sub>2</sub> nanocomposite for degradation of rhodamine B under visible light irradiation**

Yuxing Sun, Zilong Zhang, Juan Yang, Xiang Wang, Huanjun Peng and Jingdong Peng\*



## PAPERS

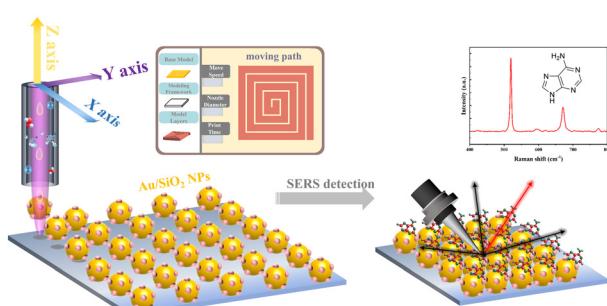
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### A generalized strategy for the ultrafast encapsulation of metal oxide nanoclusters into zeolites

Tao Yu, Yundong Wang, Jianhong Xu\*  
and Zhendong Liu\*

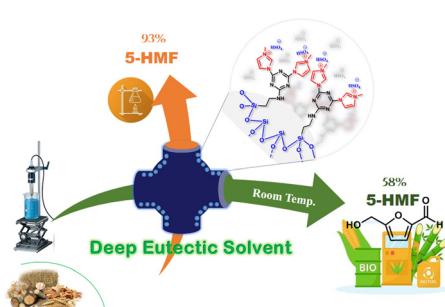
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### Microplasma-printed Au-based SERS sensing platform for ultra-sensitive chemical analyte detection

Ziyi Zhang, Fajun Wang, Volker Hessel,  
Kostya (Ken) Ostrikov, Wei Wang, Xu Zhang  
and Liangliang Lin\*

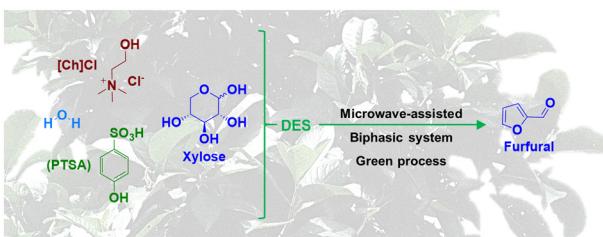
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### Optimizing 5-hydroxymethylfurfural production from biomass carbohydrates: ionic liquid-catalyzed pathways in deep eutectic solvents under sonication and thermal conditions

Sabah Karimi, Chen Binglin and Hemayat Shekaari\*

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### Synthesis of furfural from xylose using a choline chloride-based deep eutectic solvent and mechanistic insights

Daniela Margarita Echeverri Delgadillo,  
Gabriel Abrantes Dias Castro  
and Sergio Antonio Fernandes\*

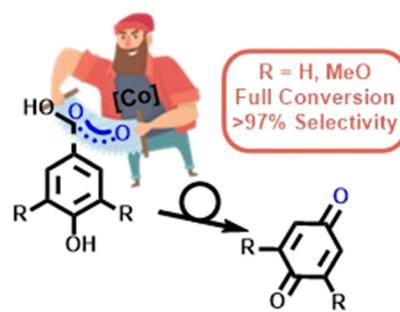


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**Oxidative cleavage of lignin model substrates with Co(salen) catalyst: an experimental study on the effect of different reaction parameters in batch and continuous flow**

Jonas Mortier, Christian V. Stevens, Joseph J. Bozell and Thomas S. A. Heugebaert\*



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**Chemical kinetics and numerical simulation of NO emission characteristics in CH<sub>4</sub>/NH<sub>3</sub>/air flame**

Yupeng Zhang, Lixin Cui, Lei Feng, Tiantian Wang, Cuiping Bian, Yifei Feng, Mengmeng Zhao and Fanglei Han\*

