

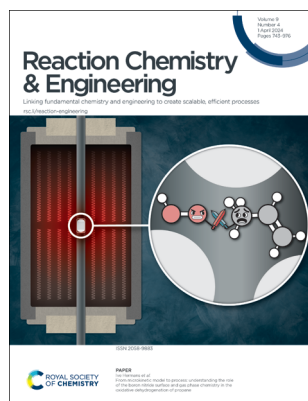
# Reaction Chemistry & Engineering

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## IN THIS ISSUE

ISSN 2058-9883 CODEN RCEEBW 9(4) 743-976 (2024)



### Cover

See Ivo Hermans *et al.*,  
pp. 795–802.  
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Matthew Wisniewski  
from *React. Chem. Eng.*,  
2024, 9, 795.

## REVIEW

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### Biomass-based graphene aerogel for the removal of emerging pollutants from wastewater

Vijayendra Kumar Tripathi, Manish Shrivastava,  
Jaya Dwivedi, Raju Kumar Gupta,\* Lokesh Kumar Jangir\*  
and Kumud Malika Tripathi\*

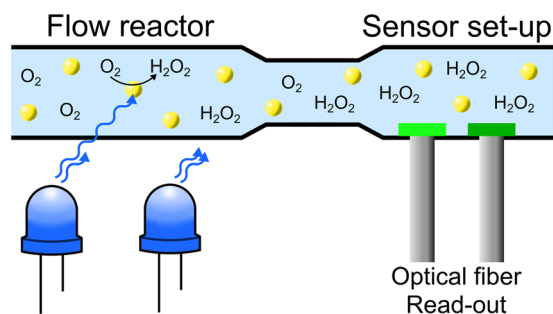


## COMMUNICATIONS

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### At-line monitoring of hydrogen peroxide released from its photocatalytic and continuous synthesis

Anders Ø. Tjell, Lars-Erik Meyer, Barbara Jud, Selin Kara  
and Torsten Mayr\*



# Environmental Science: Atmospheres

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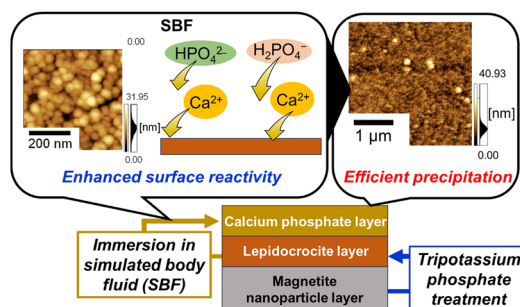


## COMMUNICATIONS

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### Surface treatment of magnetite nanoparticle thin films with potassium phosphate for calcium phosphate precipitation

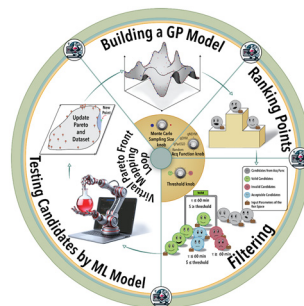
Reo Kimura, Kazuto Sugimoto, Iori Yamada and Motohiro Tagaya\*



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### Digital Pareto-front mapping of homogeneous catalytic reactions

Negin Orouji, Jeffrey A. Bennett, Sina Sadeghi and Milad Abolhasani\*

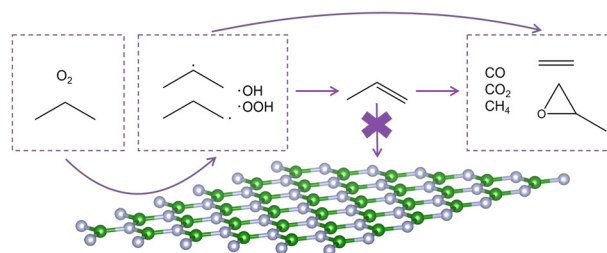


## PAPERS

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### From microkinetic model to process: understanding the role of the boron nitride surface and gas phase chemistry in the oxidative dehydrogenation of propane

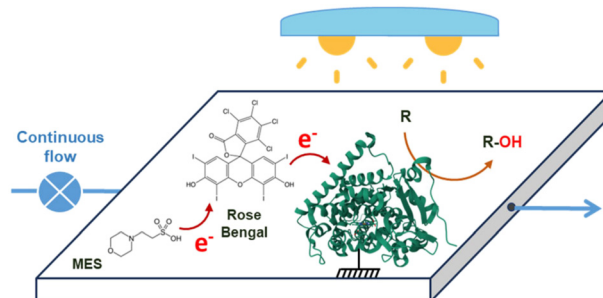
Unni Kurumbail, William P. McDermott, Edgard A. Lebrón-Rodríguez and Ive Hermans\*



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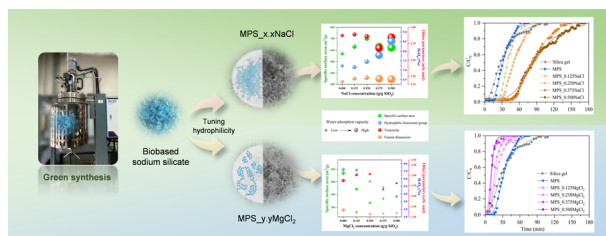
### Mediated electron transfer in a photo-bioreactor: continuous flow hydroxylation using cytochrome P450 BM3 in NADPH-free conditions

Ali Fendri, Donya Valikhani and Joelle N. Pelletier\*





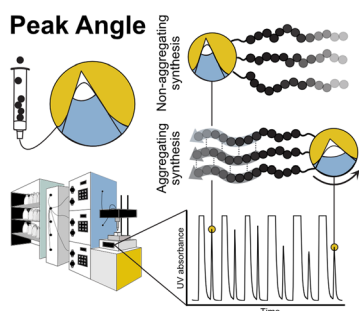
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### Green synthesis of surfactant-free mesoporous silica with strong hydrophilicity via metal salt modifications for moisture adsorption

Pariyawalee Sangteantong, Kunpirom Chainarong, Waleeporn Donphai and Metta Chareonpanich\*

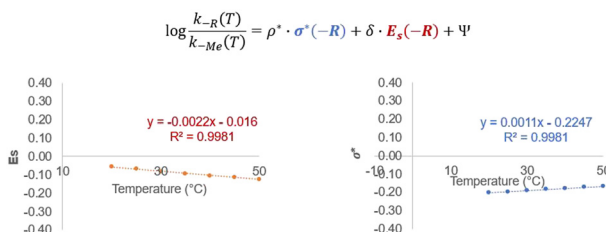
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### A robust data analytical method to investigate sequence dependence in flow-based peptide synthesis

Bálint Tamás, Pietro Luigi Willi, Héloïse Bürgisser and Nina Hartrampf\*

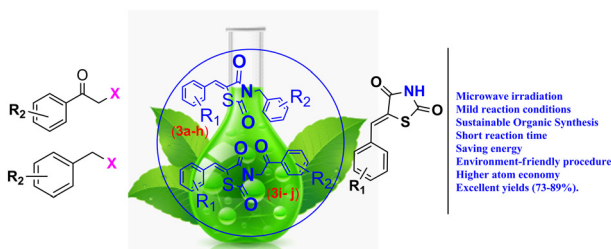
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### Temperature effect on the steric and polar Taft substituent parameter values

Sindi Baco, Marcel Klinksiek, Mélanie Mignot, Christoph Held, Julien Legros and Sébastien Leveneur\*

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### A safe and new strategy for N-arylation of 2,4-thiazolidinediones via microwave irradiation using base catalyst K<sub>2</sub>CO<sub>3</sub> in DMF

Ragini C. Patil, Nita M. Khiratkar, Sumeer Ahmed, Joazaizulfazli Jamalis, Aso Hameed Hasan, Malika Berredjem, Sarkar M. A. Kawsar and Ajmal R. Bhat\*

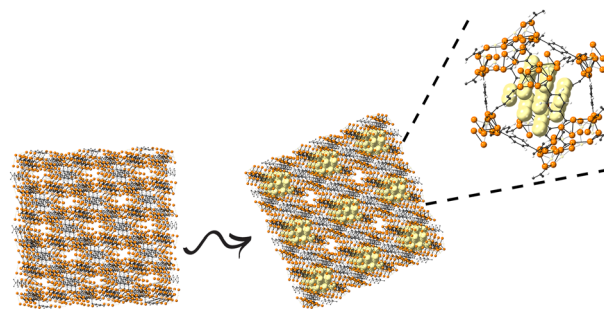


## PAPERS

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### Encapsulation of $\text{Ti}_x\text{Fe}_y\text{La}_m\text{O}_z$ nanoparticles into $\text{NH}_2\text{-MIL-125(Ti)}$ to fabricate a promising photocatalyst for the C–N coupling reaction

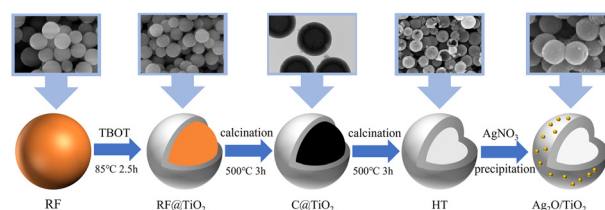
Yahya Absalan,\* Mohammad Rafsanjani Dehghazi,  
Reza Samavati, Kambiz Souri and Mostafa Gholizadeh



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### Synthesis of hollow sphere structured $\text{TiO}_2$ loaded with $\text{Ag}_2\text{O}$ and its photocatalytic activity

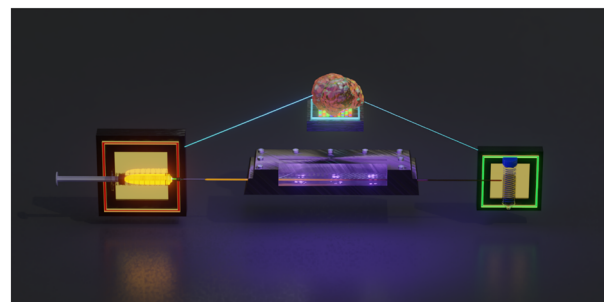
Hejin Liu, Ying Liu, Xueqin Wang,\* Peng Qiao,  
Wenyi Wang, Mei Zhang, Yanxiu Liu\* and Hua Song



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### Machine-learning assisted optimisation during heterogeneous photocatalytic degradation utilising a static mixer under continuous flow

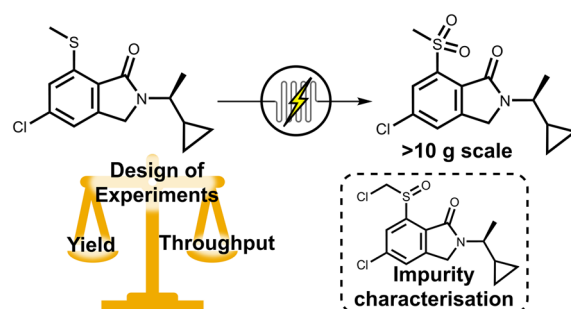
Thomas M. Kohl, Yan Zuo, Benjamin W. Muir,  
Christian H. Hornung, Anastasios Polyzos, Yutong Zhu,  
Xingdong Wang and David L. J. Alexander\*



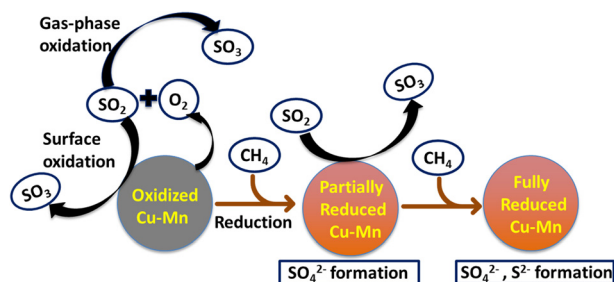
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### The electrochemical oxidation of a thioether to form an API intermediate and the effects of substrate electronics on impurity formation

Hamish R. Stephen,\* Holly Longhurst, Michael Nunn,  
Christopher D. Parsons and Matthew Burns\*



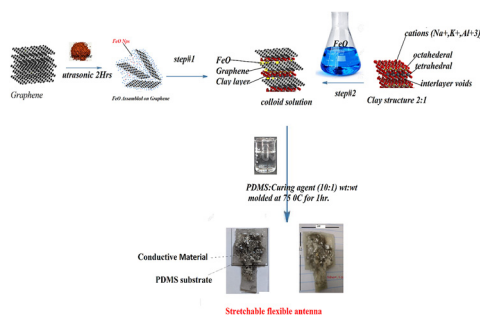
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### Interaction of $\text{SO}_2$ with a Cu-Mn oxide oxygen carrier during chemical looping with oxygen uncoupling

Turna Barua and Bihter Padak\*

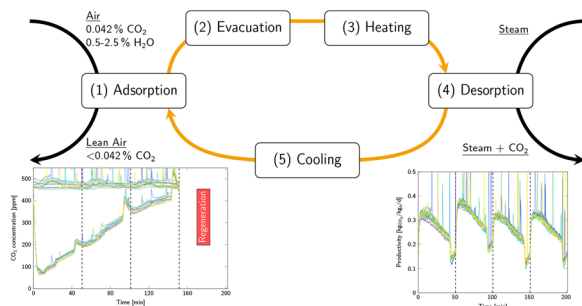
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### Fabrication and evaluation of a flexible antenna device composed of a compatible iron-oxide clay in a PDMS graphene matrix

Ameen Abdelrahman, Fouad Erchiqui and Mourad Nedil

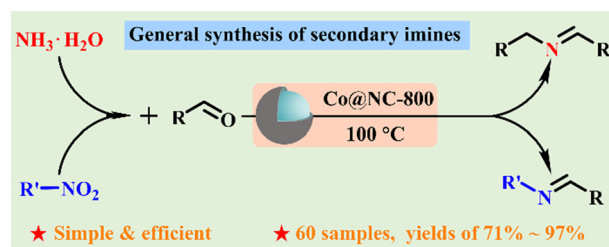
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### Experimental study of $\text{CO}_2$ capture from air via steam-assisted temperature-vacuum swing adsorption with a compact kg-scale pilot unit

H. M. Schellevis and D. W. F. Brilman\*

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### General synthesis of secondary imines via reductive coupling of carbonyl and nitro compounds employing a reusable cobalt catalyst

Chaochong Zhang, Yurong He, Peng Zhou,\* Yuandie Ma, Ziliang Yuan, Guoqiang She, Zhe Zheng, Juncheng Hu, Qingqing Jiang, Jason Chun-Ho Lam, Bo Han,\* Zehui Zhang\* and Bing Liu\*

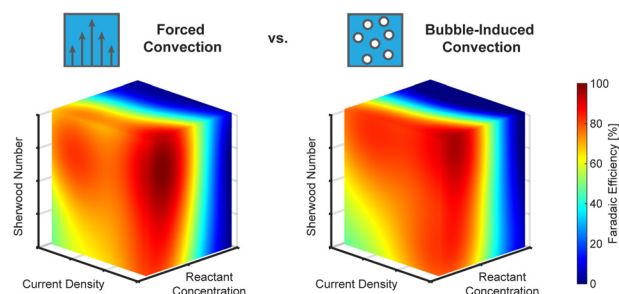


## PAPERS

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# Understanding the effects of forced and bubble-induced convection in transport-limited organic electrosynthesis

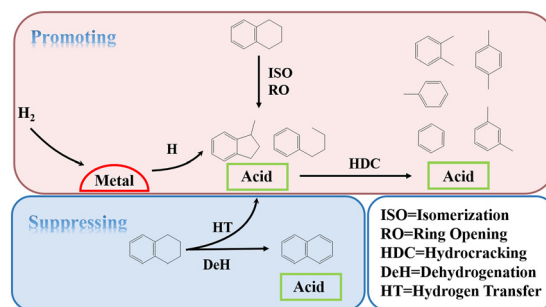
Casey K. Bloomquist, Melisa Dogan, James S. Harris, Benjamin D. Herzog, William J. Tenn III, Eray S. Aydil\* and Miguel A. Modestino\*



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# Dominant role of zeolite in coordination between metal and acid sites on an industrial catalyst for tetralin hydrocracking

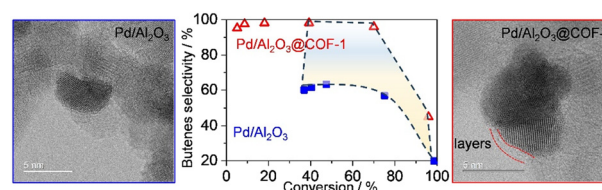
Jiayao Qi, Hanqiong Jia, Fei Wang, Hang Gao, Bo Qin,\* Xinwei Zhang, Jinghong Ma, Yanze Du and Ruifeng Li\*



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# Palladium particle-catalyzed selective butadiene hydrogenation: effect of covalent organic framework modification

Xianming Li, Yi Wang, Qiao Yuan, Xintai Chen, Xiaoling Mou,\* Xiangen Song, Li Yan, Ronghe Lin\* and Yunjie Ding\*

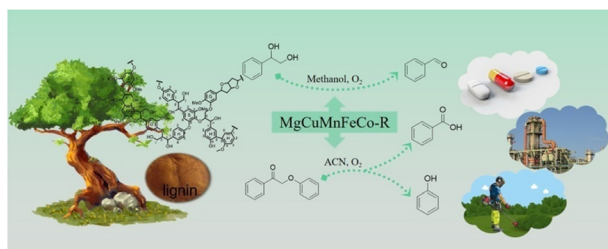


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# Continuous flow synthesis of the ionizable lipid ALC-0315

Jakob B. Wolf, Ju Weon Lee, Matthew B. Plutschack, Dario Cambié, Andreas Seidel-Morgenstern and Peter H. Seeberger\*





## Selective aerobic oxidative C–C bond cleavage using a high-entropy oxide-derived multimetallic catalyst

Shaoyuan Guo, Xinli Tong,<sup>\*</sup> Jipeng Wang and Hang Tang

