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### Cover

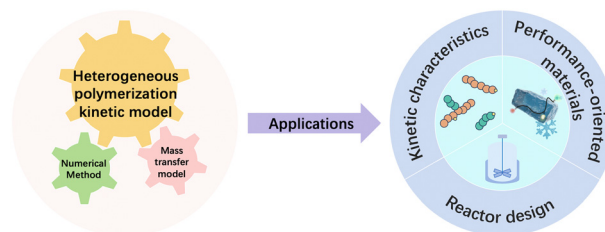
See Pedro Castaño et al., pp. 975–998.  
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## REVIEW

942

### State-of-the-art heterogeneous polymerization kinetic modelling processes and their applications

Shu-Cen Lai, Jie Jin\* and Zheng-Hong Luo\*

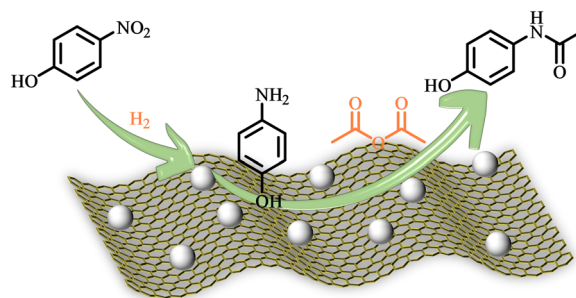


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### Efficient one-pot hydrogenation and acetylation of 4-nitrophenol for selective synthesis of 4-aminophenol and paracetamol with a reusable Ni catalyst

Ziliang Yuan,\* Xi Wang, Yuxin Liu, Peng Zhou, Renjie Huang, Jie Lv, Yimeng Yang, Yanrong Ren,\* Zehui Zhang and Bing Liu\*





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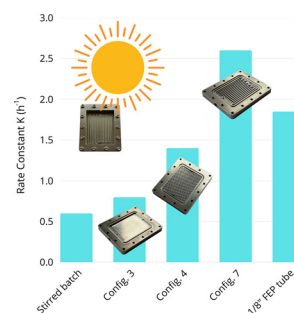


## COMMUNICATIONS

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# Reconfigurable photoflow reactor for enhanced optimization of the aerobic oxidative coupling of 2-phenylbenzoic acid

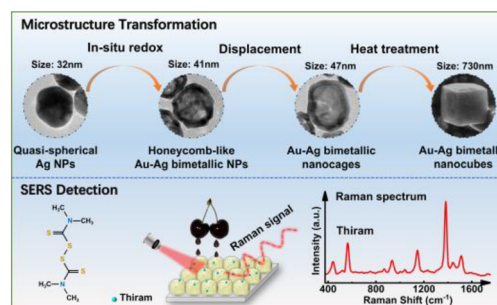
Florian Ehrlich-Sommer, Tobias Friedl, Christian Koller and Malek Y. S. Ibrahim\*



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# Continuous-flow synthesis of special Au-Ag bimetallic nanoparticles and their application for SERS detection of thiram in cherry juice

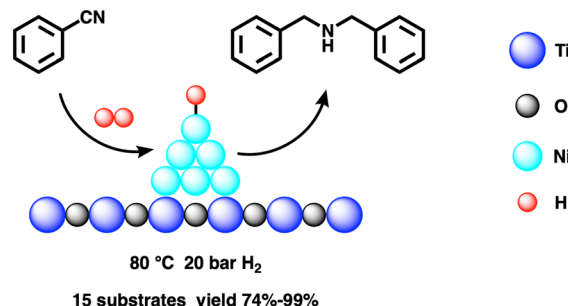
Li Sun,\* Mingjian Jiang, Yuan Zhi,\* Hua Zhang, Binlin Dou, Yuejin Shan, Jian Chen and Xiangyang Xu



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# Efficient selective hydrogenation of benzonitrile over TiO<sub>2</sub>-supported nickel catalysts

Yinkun Li, Dongxue Wang, Xixi Liu, Guoqiang She, Peng Zhou, Yanxi Zhao,\* Zehui Zhang and Bing Liu\*

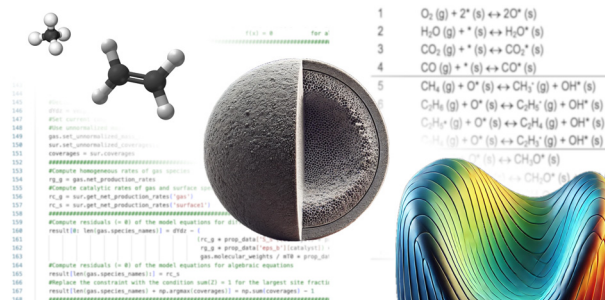


## PAPERS

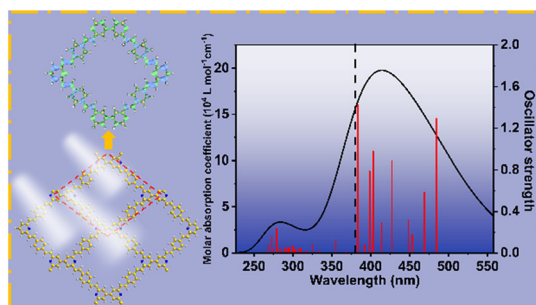
975

# Intrinsic microkinetic effects of spray-drying and SiC co-support on Mn-Na<sub>2</sub>WO<sub>4</sub>/SiO<sub>2</sub> catalysts used in oxidative coupling of methane

Gontzal Lezcano, Shekhar R. Kulkarni, Vijay K. Velisoju, Natalia Realpe and Pedro Castaño\*



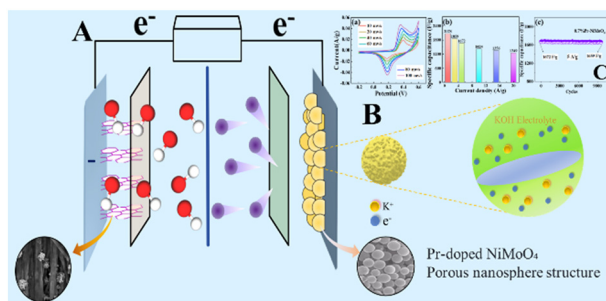
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### Revelation of the photoexcitation mechanism of COF-DFB materials based on first principles

Huanjun Su,\* Yumeng Zhang, Weili Shi, Haoyang Shi, Yani Liu and Ying Lin

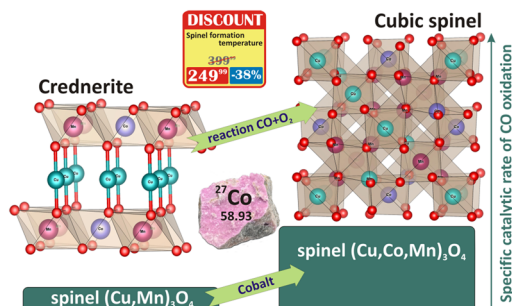
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### Pr-doped oxygen-vacancy-induced porous NiMoO<sub>4</sub> cathode and MoS<sub>2</sub>-modified CNT anode for constructing ultra-high-performance supercapacitors

Haoran Li, Tenghao Ma, Tingting Hao, Jian Hao, Jing Wang,\* Yabin Wang, Zheng Zhao and Chenyu Lei

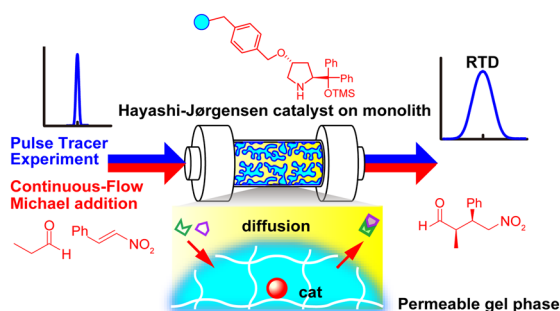
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### Highly efficient cobalt-modified hopcalite catalysts prepared through crednerite–spinel transformation

D. A. Svintsitskiy,\* E. S. Kvasova, T. Yu. Kardash, N. A. Sokovikov, O. A. Stonkus and A. I. Boronin

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### Residence time distribution effects on continuous-flow reaction in a polymer gel-based porous monolith: investigation of an asymmetric reaction with supported Hayashi–Jørgensen catalysts

Harutaka Shigeeda, Hikaru Matsumoto, Masanori Nagao and Yoshiko Miura\*



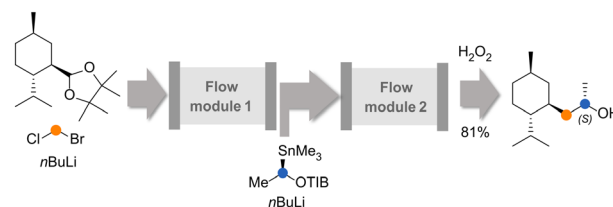


## PAPERS

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# The “factory in a lab”: telescoping the Matteson and Matteson–Hoppe–Aggarwal boronate chemistry under flow conditions

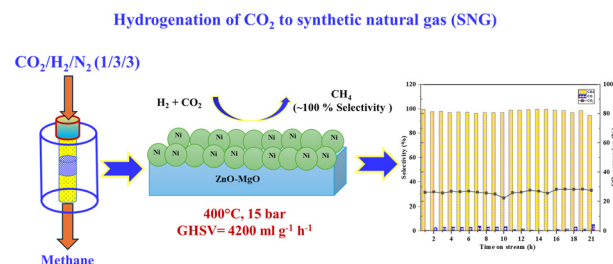
Florian Fricke, Gerald Dräger and Andreas Kirschning\*



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# Hydrogenation of CO<sub>2</sub> to synthetic natural gas (SNG) with 100% selectivity over a Ni–ZnO–MgO catalyst

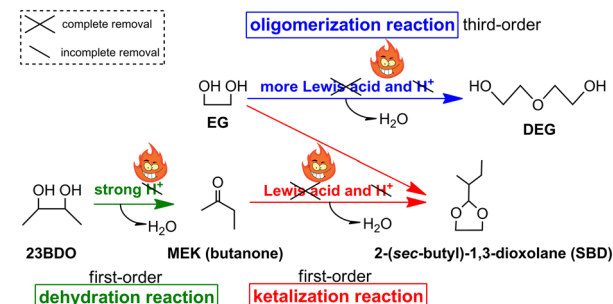
Mahendra Kumar Meena, Shalini Biswas and Prakash Biswas\*



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# Modification of acidic groups over zeolites via calcination for the selective catalytic transformation of 2,3-butanediol in ethylene glycol

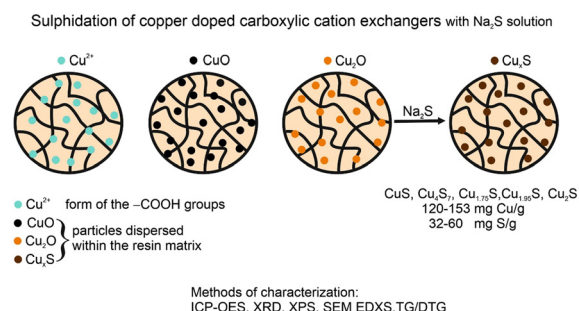
Shuo Ai, Kaili Gao, Zhenhua Huang, Linghui Liu\* and Wanguo Yu



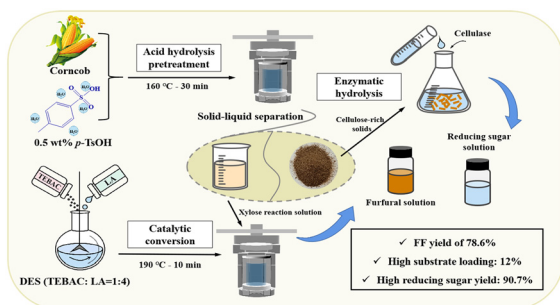
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# Sulphidation of Cu<sup>2+</sup>, CuO and Cu<sub>2</sub>O within the matrix of carboxylic cation exchangers – compositional, morphological and thermal properties of Cu<sub>x</sub>S containing composites

Elżbieta Kociotek-Balawejder, Irena Jacukowicz-Sobala, Juliusz Winiarski, Igor Mucha and Katarzyna Winiarska\*



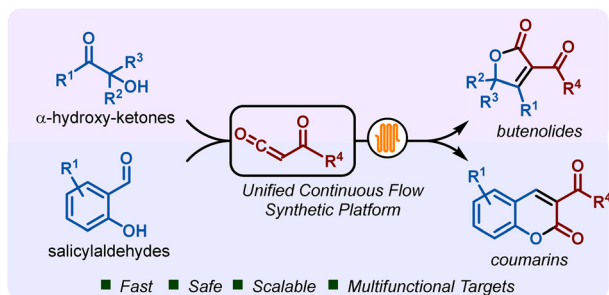
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### An integrated strategy for corn cob pretreatment and coproduction of furfural and monosaccharides based on *p*-toluenesulfonic acid and a deep eutectic solvent system

Liping Luo, Wenxuan Wu, Yanan Shen, Yuheng Tao, Liqun Wang and Qing Qing\*

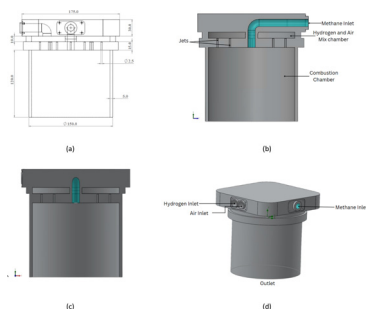
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### Fast and scalable continuous flow synthesis of butenolides and coumarins

Lucas Coral Ferreira, Renan de Souza Galaverna, Tom McBride, Rodrigo Costa e Silva, Duncan L. Browne\* and Julio Cezar Pastre\*

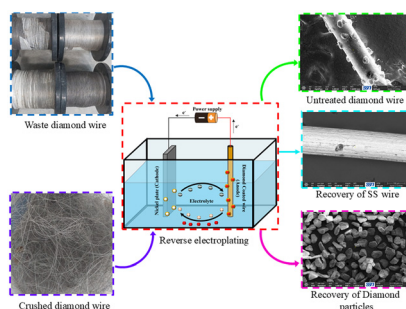
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### Numerical modelling of non-premixed hydrogen blended combustion in a 3D-combustor with jet optimisation

Michael E. Okolo,\* David S. Adebayo and Chike F. Oduoza

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### A novel approach on reverse electroplating to remove diamond particles and recover stainless steel wire from waste diamond coated wire

Bharathwaj Murugesan, Karuppasamy Pichan\* and Ramasamy Perumalsamy



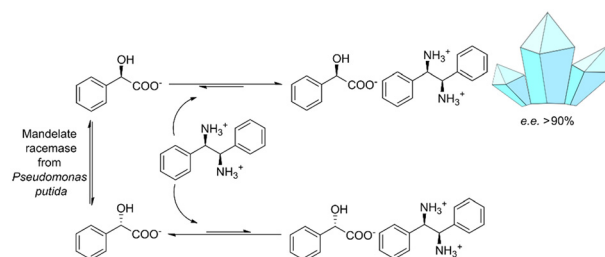


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## Crystallization-integrated mandelate racemase-catalyzed dynamic kinetic resolution of racemic mandelic acid

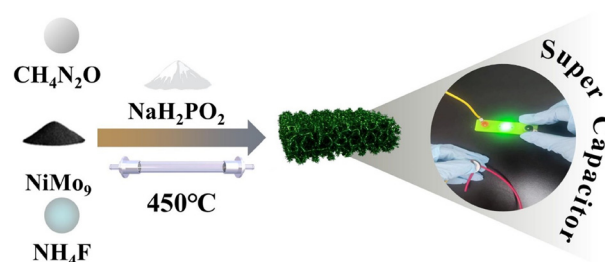
Feodor Belov, Alexandra Lieb and Jan von Langermann\*



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*In situ* fabrication of  $\text{MoO}_2\text{-Ni}_3(\text{PO}_4)_2/\text{NF}$  heterojunction composite material for application as a supercapacitor electrode

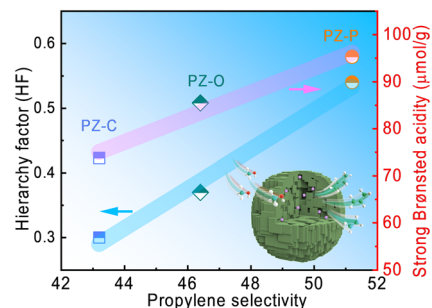
Zhongxin Jin,\* Feng Lin, Caiying Li, Cheng Shao, Yang Xu, Fangze Li, Haijun Pang\* and Huiyuan Ma\*



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Hierarchical P-ZSM-5 zeolites *in situ* synthesized using home-made asymmetric quaternary phosphonium for the methanol-to-propylene reaction

Yonglin Ren, Yimin Zhang, Xinyu Xu, Binbin He and Yun Zu\*



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Rapid and efficient removal of  $\text{Sr}^{2+}$  ions by the easy-to-operate and environmentally friendly  $\text{KInSnS}_4$ @collagen fiber aerogel

Jiang-Hai He, Jun-Hao Tang, Ming-Dong Zhang,\* Chuan Lv, Lu Yang, Zhi-Hua Chen, Yi Liu, Hai-Yan Sun, Mei-Ling Feng\* and Xiao-Ying Huang

