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Cover

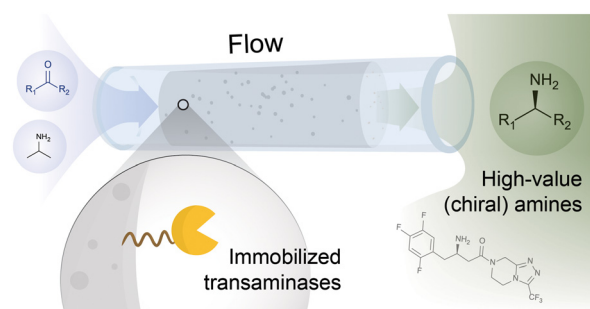
See Jean-Christophe M. Monbaliu *et al.*, pp. 1565–1575.
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REVIEW

1505

Continuous flow-mode synthesis of (chiral) amines with transaminase: a strategic biocatalytic approach to essential building blocks

Hippolyte Meersseman Arango, Ludvine van den Biggelaar, Patrice Soumilion, Patricia Luis, Tom Leyssens, Francesca Paradisi and Damien P. Debecker*

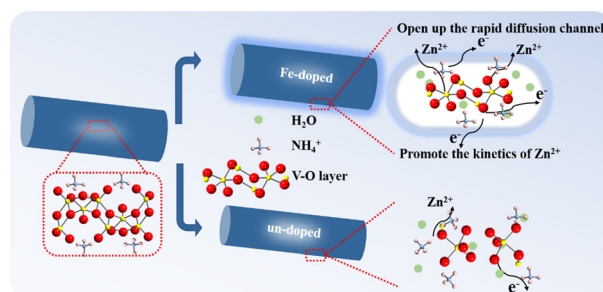


COMMUNICATIONS

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Enhanced electrochemical performance of iron-doped $(\text{NH}_4)_2\text{V}_{12}\text{O}_{27} \cdot x\text{H}_2\text{O}$ as a cathode material for aqueous zinc-ion batteries

Jiajia Song, Lingjiang Kou,* Yong Wang, Yong Pang,* Taotao Ai, Koji Kajiyoshi,* Mengting Liu, Weiwei Bao, Wenhui Li and Panya Wattanapaphawong



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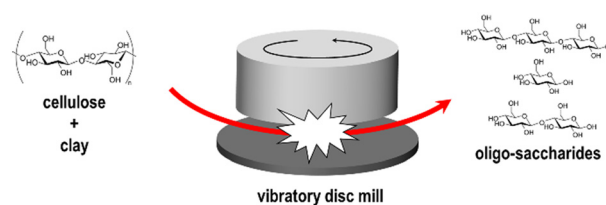


COMMUNICATIONS

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Boosting the mechanocatalytic hydrolysis of cellulose by using a vibratory disc mill and clay minerals

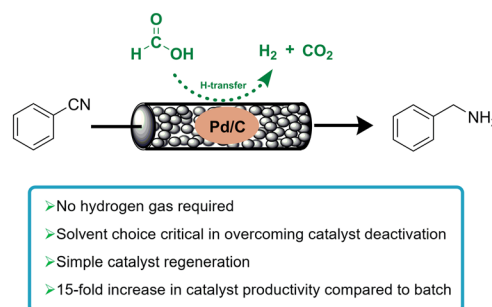
Takeshi Mori,* Yuta Ogawa, Seiichio Yoshida, Takema Sasaki and Keiichiro Matsushima*



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Continuous-flow transfer hydrogenation of benzonitrile using formate as a safe and sustainable source of hydrogen

Seán D. Dempsey, Ailbhe A. Ryan, Megan Smyth, Thomas S. Moody, Scott Wharry, Karen Fahey, Andrew M. Beale, Sofia Mediavilla Madrigal, Paul Dingwall, David W. Rooney, Peter C. Knipe,* Mark J. Muldoon* and Jillian M. Thompson*

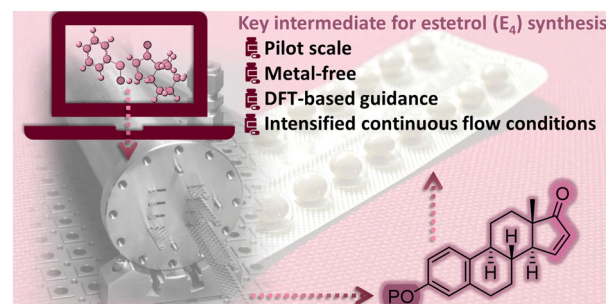


PAPERS

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Metal-free synthesis of an estetrol key intermediate under intensified continuous flow conditions

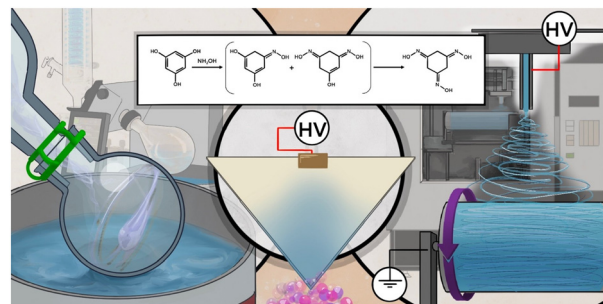
Pauline Bianchi, Amaury Dubart, Maurane Moors, Damien Cornut, Gilbert Duhirwe, Jordi Ampurdanés Vilanova and Jean-Christophe M. Monbaliu*



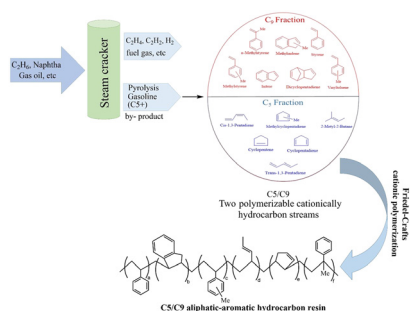
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Accelerated formation of trioximes through confined volume reactors and scale-up using thin film methods

Hilary M. Brown, Joseph E. Estevez, Jeffrey C. Bottaro, Benjamin G. Harvey and Patrick W. Fedick*



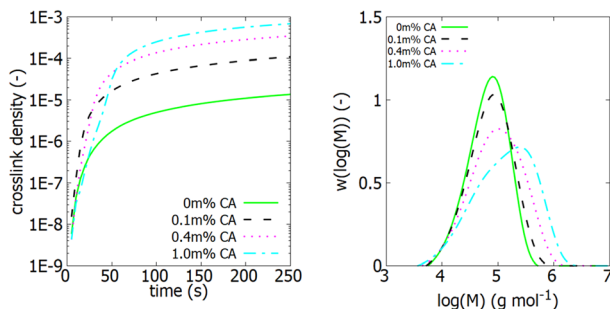
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Use of a cross-linked polystyrene/titanium tetrachloride tightly bound coordination complex as catalyst for the production of petroleum resins

Ali Rahmatpour,* Parvaneh Soleimani, Soroush Karamian and Razieh Dadvand

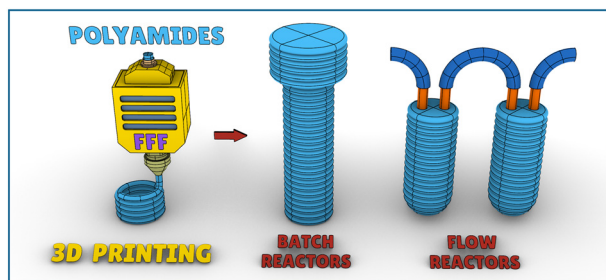
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Playing with process conditions to increase the industrial sustainability of poly(lactic acid)-based materials

K. De Smit, Y. W. Marien, P. H. M. Van Steenberge, D. R. D'hooge* and M. Edeleva

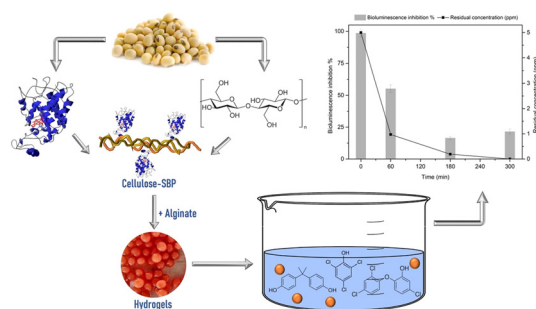
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Systematic study of FFF materials for digitalizing chemical reactors with 3D printing: superior performance of carbon-filled polyamide

Victoria A. Korabelnikova, Evgeniy G. Gordeev and Valentine P. Ananikov*

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Soybean peroxidase immobilised on cellulose-alginate hydrogels for removal of recalcitrant organic pollutants in water


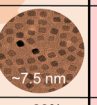
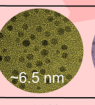


Monica Rigoletto, Paola Calza, Alexandre Santuchi da Cunha, Valentina Sederino, Debora Fabbri, Maria Laura Tummino and Enzo Laurenti*



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Deciphering the parameters to produce highly reproducible and scalable iron oxide nanoparticles

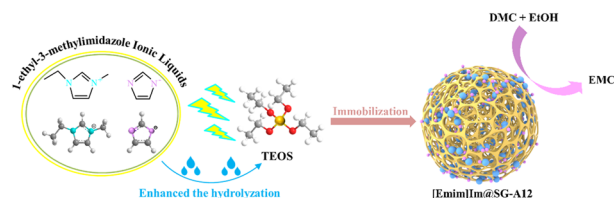
Ashish Avasthi, Carlos Caro, María Luisa Garcia-Martin* and Manuel Pernia Leal*

Precursor	Iron oleate		Iron acetylacetonate		
Solvent	Octadecene	Hexadecene	Benzyl ether	Diphenyl ether	Diphenyl ether
Surfactant/Co-solvent	Oleic acid	Oleic acid	Oleic acid, OAM	Oleic acid, OAM	Oleyl alcohol, OAM, oleic acid, Na-oleate
Nano-particles					
Replication	~50%	~60%	~60%	~72%	~95%
Scalability	~25%	~40%	~50%	~50%	~95%

1654

One-step embedding method for immobilized bifunctional and alkaline ionic liquids as effective catalysts applied in transesterification

Zhentao Zhao, Mingyu Liu, Yuxin Wang, Zizhen Yan, Guangwen Xu, Jianjun Guo* and Lei Shi*



1665

Designing neoteric acidic deep eutectic solvents: an innovative, low-cost and environment-friendly strategy in the fast and facile production of 5-hydroxymethylfurfural

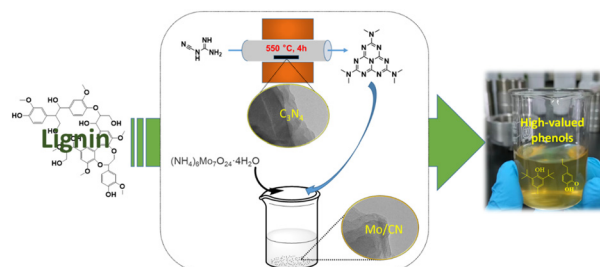
Sabah Karimi, Mahsa Niakan and Hemayat Shekaari*



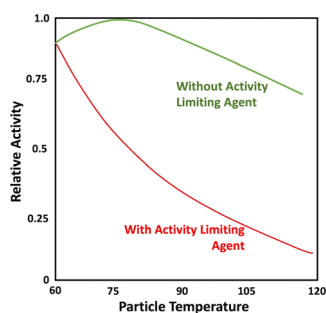
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Enhanced lignin depolymerisation to produce butylated hydroxytoluene and 4-propylguaiacol on carbon-nitride supported molybdenum catalysts

Zhen Wu,* Hongli Bai, Yifan Ji, Tao Wang, Ziheng Zhao, Yetao Jiang, Xiaoyu Wang, Jiaying Xu, Aiyong He,* Sheng Chen and Lei Hu*



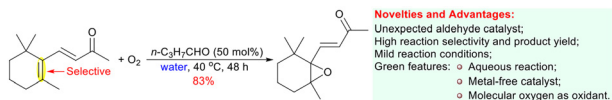
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Performance of post phthalate Ziegler Natta catalysts with activity limiting agents for propylene gas phase polymerization

Abdulrahman Albeladi, Akhlaq Moman and Timothy F. L. McKenna*

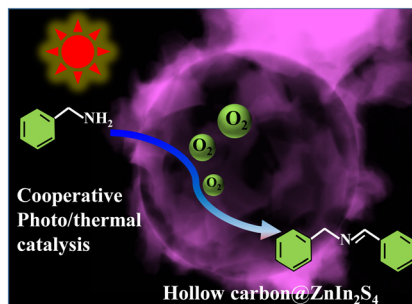
1700



Aerobic epoxidation of β -ionone in water under mild conditions using aldehydes as catalyst precursors

Xu Zhang,* Zijie Wei and Lei Yu*

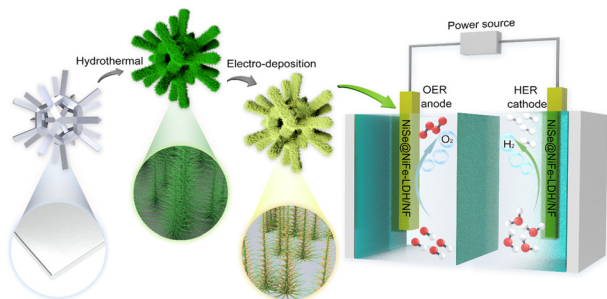
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Photothermally accelerated photocatalysis over hollow carbon@ZnIn₂S₄ for enhanced amine oxidation

Dengrong Sun, Jeong-Un Joo and Dong-Pyo Kim*

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NiFe-LDH coated NiSe/Ni foam as a bifunctional electrocatalyst for overall water splitting

Wentong Wu, Boya Min, Hanbing Li, Feng Liu, Mingsheng Zheng,* Kunpeng Ding, Shijian Lu* and Maochang Liu*

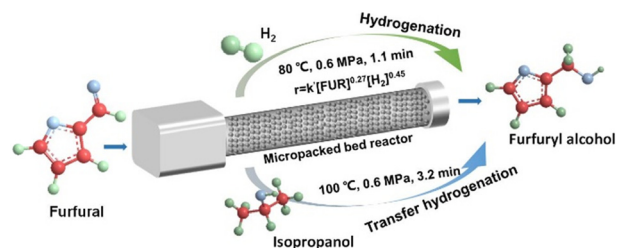


PAPERS

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Efficient and continuous furfural hydrogenation to furfuryl alcohol in a micropacked bed reactor

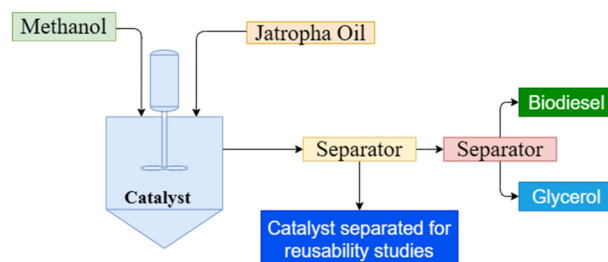
Lian Duan, Mengmeng Huang, Zipin Peng, Le Sang* and Jisong Zhang*



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Production of biodiesel: kinetics and reusability studies of the Mg–Al hydrotalcite catalyst using Jatropha oil

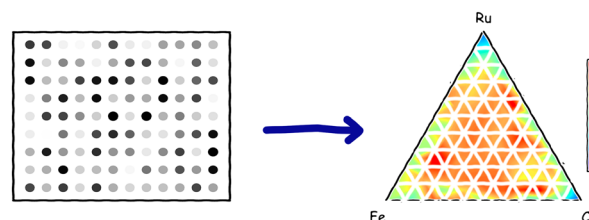
B. V. S. Praveen, Narayan C. Pradhan, Anup Ashok, Ramesh Kumar Guduru, Rakesh Kumar Vij and Lakshmana Rao Jeeru*



1738

High throughput discovery of ternary Cu–Fe–Ru alloy catalysts for photo-driven hydrogen production

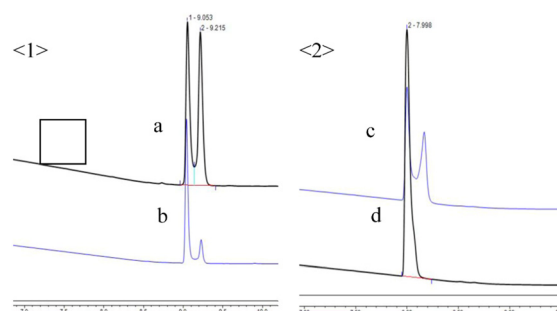
Maya Bhat,* Zoe C. Simon, Savannah Talledo, Riti Sen, Jacob H. Smith, Stefan Bernhard, Jill E. Millstone and John R. Kitchin



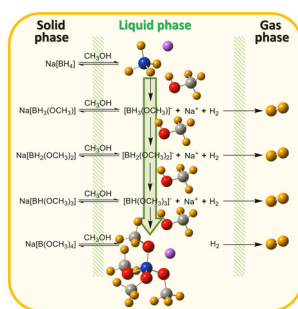
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Synthesis and crystal characteristics of nirmatrelvir

Bibo Jiang, Gang Li, Jun Yu, Xiaoyan Xu, Hongjuan Pan, Chuanmeng Zhao, Jialiang Zhong* and Fuli Zhang*



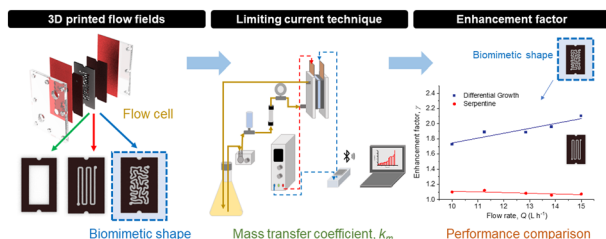
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Reactive and non-reactive species formed during the methanolysis of NaBH_4 : a theoretical and experimental approach

Alejandro Vallejo Orrego, Cristián A. Ferretti* and Verónica K. Díez

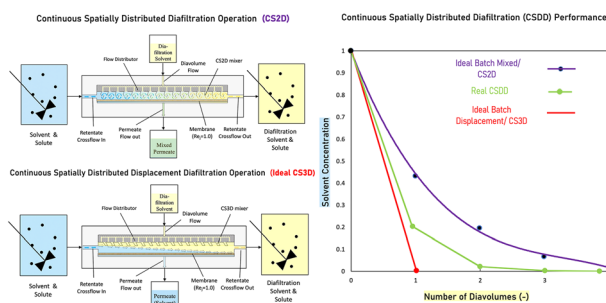
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Mass transfer enhancement in electrochemical flow cells through 3D-printed biomimetic channels

Inmaculada García-López,* Luis Fernando Arenas, Thomas Turek, Vicente Ismael Águeda and Amalio Garrido-Escudero

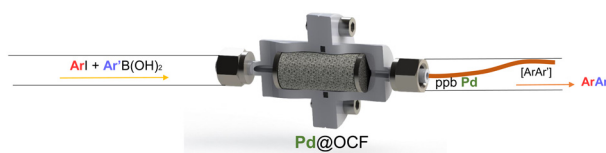
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Development of continuous spatially distributed diafiltration unit operations

Zoheb Khan, Xiaoyan Long, Eoin Casey, Denis Dowling and Steven Ferguson*

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Open cell foam materials as Pd reservoirs for Suzuki-Miyaura coupling catalysis at ppb level

Amira Jabbari-Hichri, Amine Bourouina, Pierre-François Biard, Audrey Denicourt-Nowicki, Alain Roucoux, Marie-Line Zanota, Fabrice Campoli, Claude de Bellefon* and Valérie Meille*

