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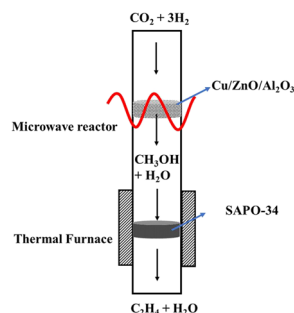
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Chem. Eng., 2024, 9, 226.

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CO₂ hydrogenation to olefins in a microwave-thermal hybrid heating reactor

Sonit Balyan, Kshitij Tewari, Brandon Robinson,
Changle Jiang, Yuxin Wang* and Jianli Hu*

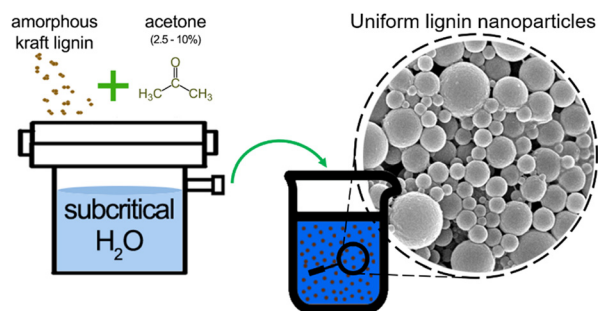


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Binary mixture of subcritical water and acetone: a hybrid solvent system towards the production of lignin nanoparticles

Philip S. McMichael, Mahfuzul Hoque,
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and E. Johan Foster*



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Fundamental questions
Elemental answers



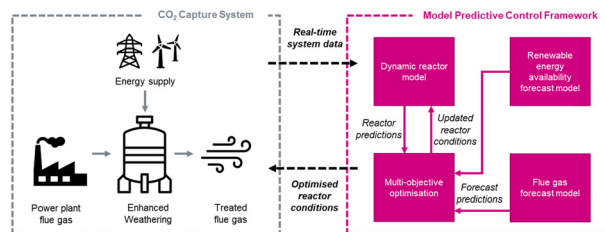
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Responsive CO₂ capture: predictive multi-objective optimisation for managing intermittent flue gas and renewable energy supply

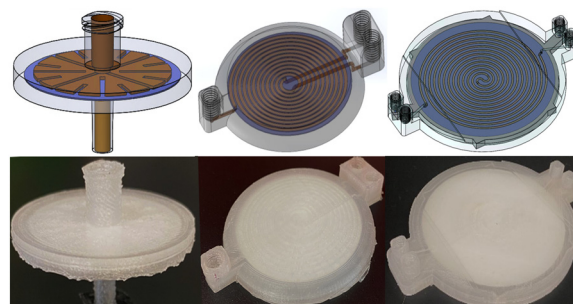
Oliver J. Fisher, Lei Xing,* Xingjian Tian, Xin Yee Tai and Jin Xuan*



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3D printed filtration and separation devices with integrated membranes and no post-printing assembly

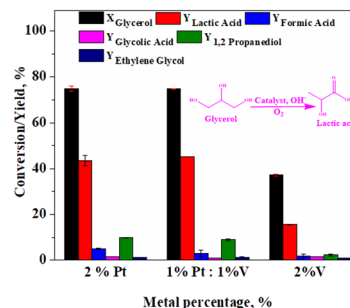
Molly J. Clark, Tushar Garg, Kathryn E. Rankin, Darren Bradshaw and Adrian M. Nightingale*



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Glycerol selective oxidation to lactic acid over platinum–vanadium bimetallic catalysts supported on activated carbon

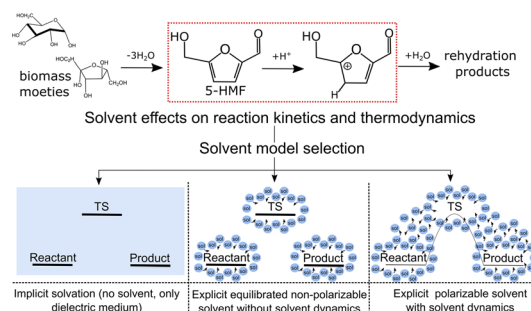
Hanumanth Reddy Pemmana, Ramu Reddi, Ramagopal V. S. Uppaluri and Nageswara Rao Peela*



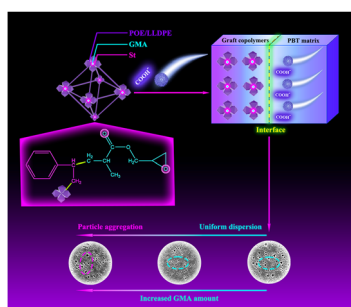
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Energetics of acid catalyzed biomass reactions: how and why does the solvent model matter?

José Carlos Velasco Calderón and Samir H. Mushrif*



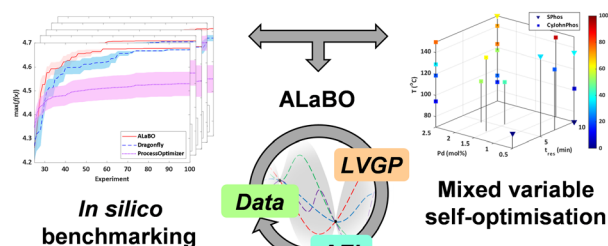
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Design and synthesis of POE/LLDPE functionalized with different amounts of reactive functional groups and its potential in toughening of PBT resin

Lixin Song,* Bing Yang, Long Zhou, Jiannan Ren, Yuanxia Wang, Xianliang Li, Wei Wang, Fei Cong, Weihan Chi and Yongchao Li

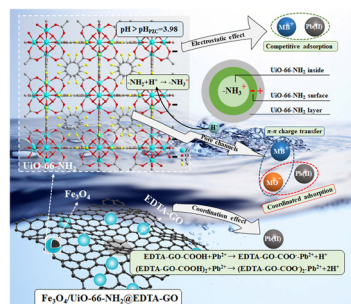
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Adaptive mixed variable Bayesian self-optimisation of catalytic reactions

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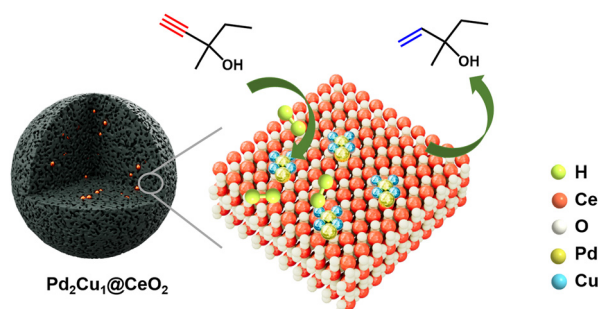
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Mesoporous CeO₂-supported ultrafine PdCu nanoparticle catalyst for selective hydrogenation of alkynols

Cheng Zhang, Yi Zheng, Jianfeng Li, Hongzhang Cao, Yanhui Xu,* Weisheng Liu and Zhengping Dong*



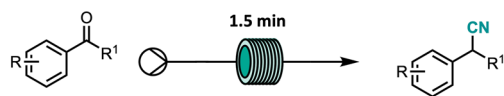
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A cyanide-free synthesis of nitriles exploiting flow chemistry

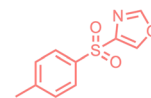
Niamh Disney, Megan Smyth, Scott Wharry,
Thomas S. Moody and Marcus Baumann*

Efficient van Leusen reaction in continuous flow mode



15 examples, 47 - 96% yield

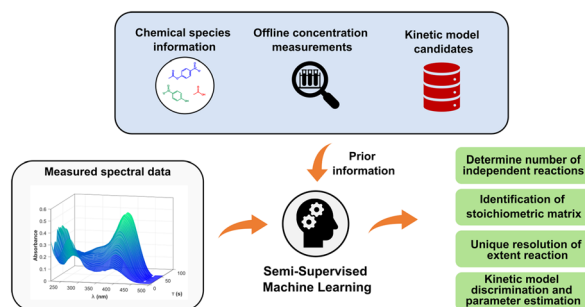
- ✓ High throughput (8.8 g/h)
- ✓ Very fast reaction
- ✓ Scalable
- Oxazole side product characterised



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Semi-supervised machine learning approach for reaction stoichiometry and kinetic model identification using spectral data from flow reactors

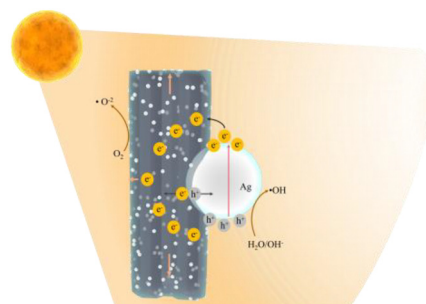
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Enhanced photocatalytic performance of Ag nanoparticle-TiO_{2-x} nanotube arrays obtained by a predischARGE-deposition method and calcination in H₂/N₂

Qihang Liu, Junjun Chen, Lang Zhang,
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Mingjun Wang,* Dong Fang* and Jianhong Yi

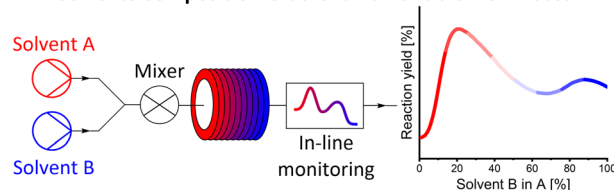


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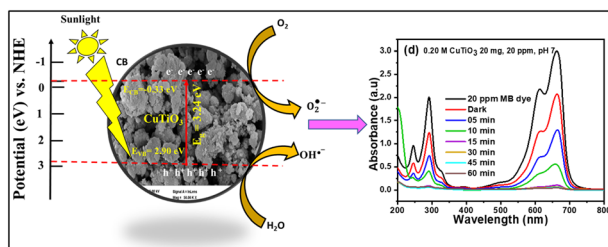
Rapid investigation of the effect of binary and ternary solvent gradient mixtures on reaction outcomes using a continuous flow system

Dawid Drelinkiewicz, Tom J. A. Corrie
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Solvents Composition Gradient via Variable Flow Rates



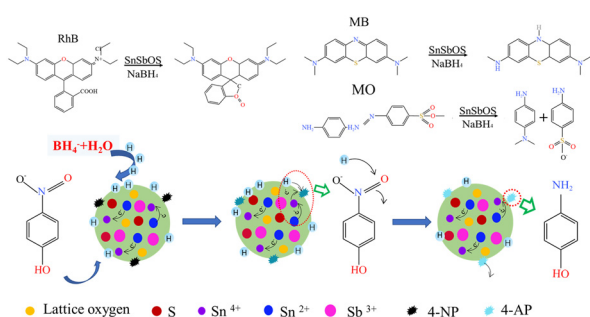
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Electrocatalytic and photocatalytic activity of CuTiO_3 perovskites for complete degradation of methylene blue under sunlight irradiation

Sanakousar F. M., Vidyasagar C. C.,* Shikandar D. B.,* Mounesh, Viswanatha C. C. and Swapna S. Chigari

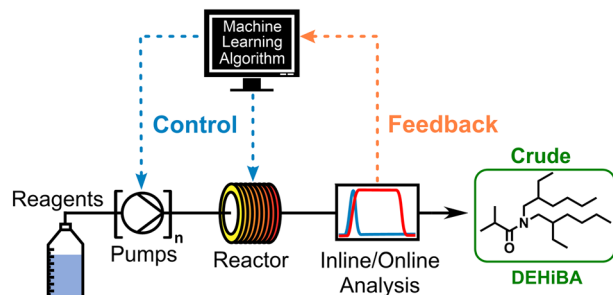
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Oxygen-doped $\text{Sn}_{17}\text{Sb}_6\text{S}_{29}$ bimetal oxysulfide catalysts for efficient reduction of organic pollutants and hexavalent chromium in the dark

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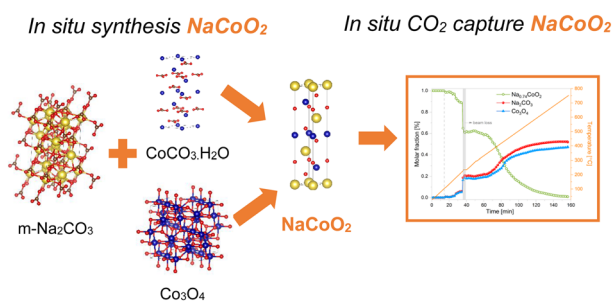
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A self-optimised approach to synthesising DEHiBA for advanced nuclear reprocessing, exploiting the power of machine-learning

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Tracking sodium cobaltate formation pathways and its CO_2 capture dynamics in real time with synchrotron X-ray diffraction

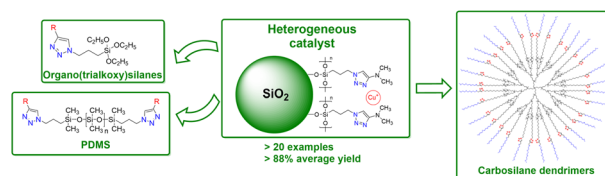
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Optimized synthesis of functional organosilicon monomers and polymers exploiting new types of CuAAC recoverable heterogeneous catalysts

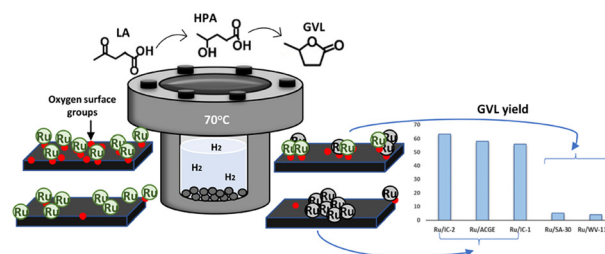
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Zhifei Chen, Hongyu Liu, Xiao Han, Ping Xu* and Fei Tao*

