

Green Chemistry

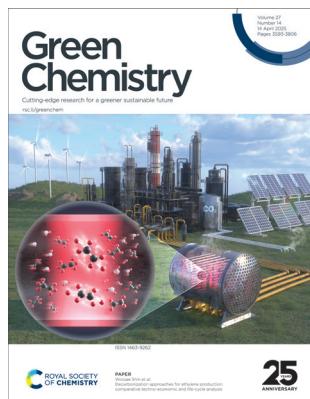
Cutting-edge research for a greener sustainable future

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See Woojae Shin *et al.*,
pp. 3655–3675.

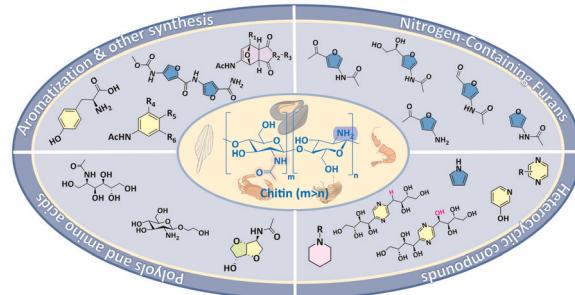
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TUTORIAL REVIEW

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Organonitrogen platform chemicals and pharmaceutical precursors: a perspective on sustainable chitin utilization

Ting Wang, Junnan Wei* and Peter J. Deuss*

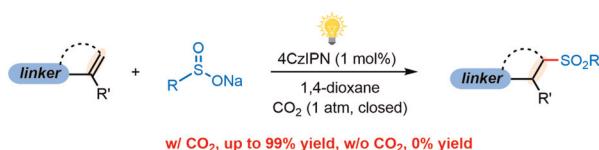


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CO_2 -Promoted photoredox-catalyzed hydrosulfonylation of alkenes with sulfonates

Wanhui Huang, Ge Liu, Fangyuanhang Yang, Yuxi Ren, Yuzhen Gao* and Weiping Su*



- CO_2 -accelerated sulfonation
- compatible with unactivated alkenes
- tolerance with broad function groups
- metal-free and equivalent reagent-free



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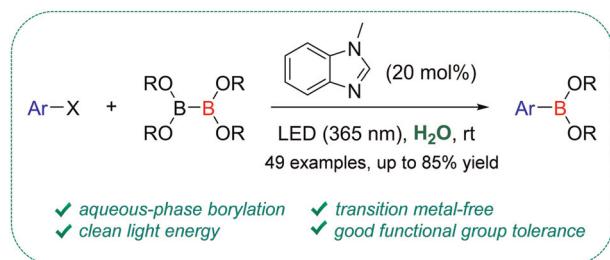
Fundamental questions
Elemental answers

COMMUNICATIONS

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Photoinduced transition metal-free borylation of aryl halides in an aqueous phase

Mengqi Liu, Wan-Min Cheng, Zi-Long Li, Hong Jiang* and Jimei Ma*



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A H₂-free heterogeneous route to glycerol-based acrylics via Re-based deoxydehydration

Maja Gabrič, Florian M. Harth, Brigit Hočevar, Sašo Gyergyek, Blaž Likozar and Miha Grilc*



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A 3D printed, metal-free, carbon-based catalytic electrode for converting CO₂ into syngas

Na Zhao, Kai Zhao, Han Zhang, Jiangyu Sheng, Shasha Feng and Wei Wang*

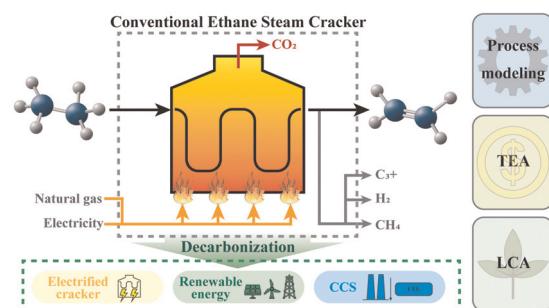


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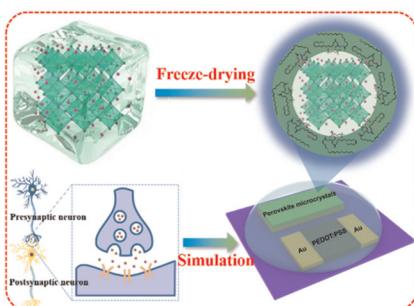
Decarbonization approaches for ethylene production: comparative techno-economic and life-cycle analysis

Woojae Shin, Bosong Lin, Haixiang Lai, Gasim Ibrahim and Guiyan Zang*

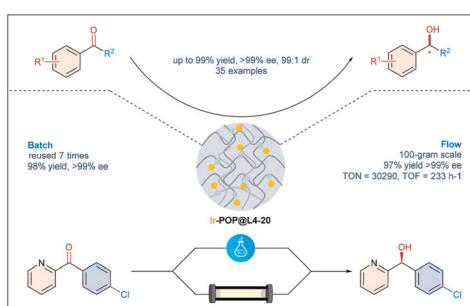


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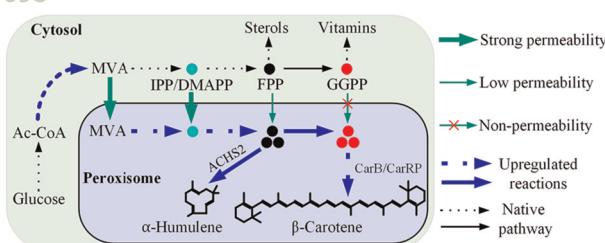
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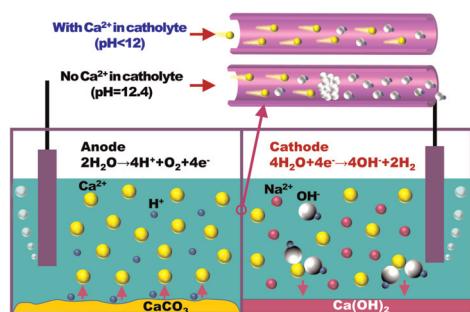
Ice-confined synthesis of lecithin-protected perovskite microcrystals for stable optical synapses

Zongyang Li, Yubo Peng, Jianlong Ji, Yuxuan Cheng, Jie Li, Ying Sun, Min Zhao,* Xudong Jin,* Huayun Du* and Yuying Hao*

Development of a heterogeneous P–N–N tridentate ligand for iridium-catalyzed asymmetric hydrogenation of ketones in batch and flow

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Electrolyte pH modulation for efficient and durable electrochemical cement clinker precursor production

Lei Xu, Lei Liu,* Zheng Fang, Min Chen, Guangfeng Ou, Michio Suzuki and Yuya Sakai

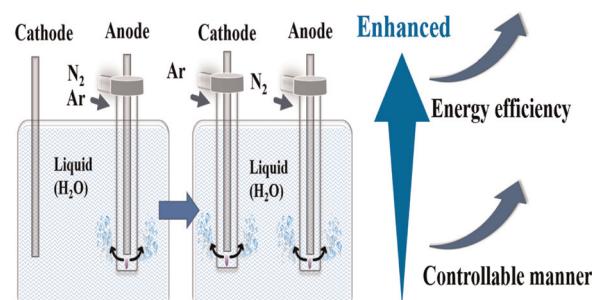


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Energy-efficient production of plasma-activated water: insights into controllable peroxy nitrite chemistry

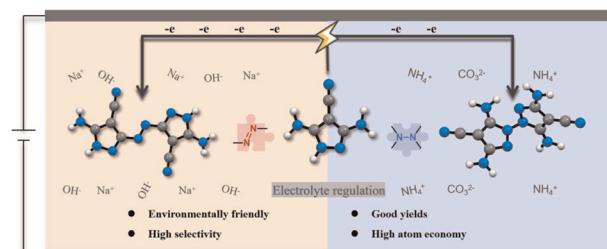
Dingwei Gan, Longfei Hong, Shuai Yuan, Mengying Zhu, Yuting Gao, Tianqi Zhang, Tianyu Li, Bohan Chen, Anna Dzimitrowicz, Piotr Jamroz, Patrick J. Cullen and Renwu Zhou*



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Site-selective electrochemical synthesis of nitrogen-enriched bis-pyrazole derivatives: a sustainable approach for N–N versus N=N bond formation

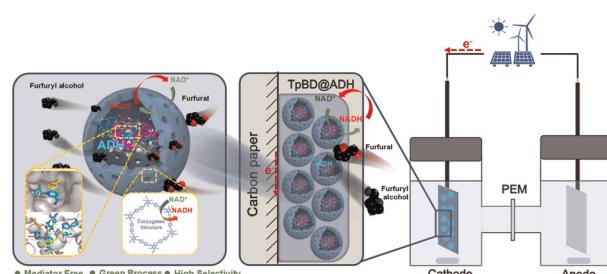
Lei Liu, Wenzhe Huang, Ye Yuan, Lu Lu, Yongxing Tang* and Wei Huang*



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A mediator-free enzyme carbonaceous cathode for bioelectrocatalytic reduction of furfural to furfuryl alcohol

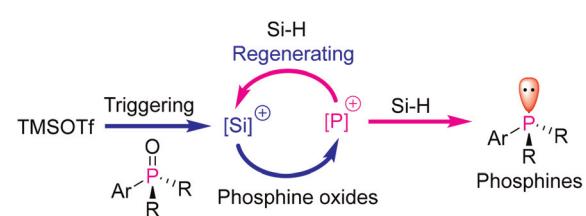
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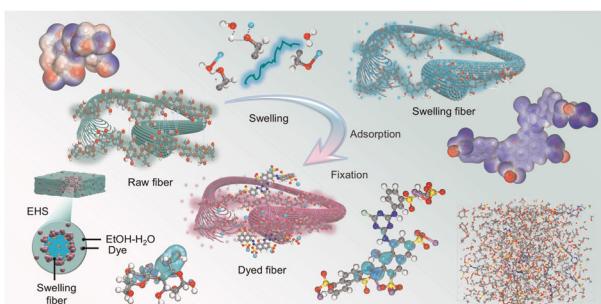
General and chemoselective reduction of phosphine oxides by an enhanced oxophilic competition mechanism

Mengyao You, Ziwei Zhang, Chao Chen, Zhichao Mei, Xinxin Zhang, Jiang Bai, Haiyang Huang* and Qiang Xiao*



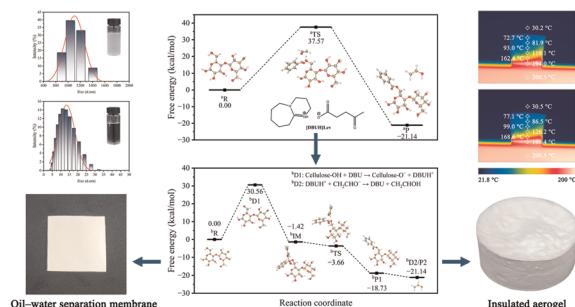
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Environmentally friendly salt-free and low-alkaline coloration of lyocell fibers in an ethanol–water mixture with excellent exhaustion

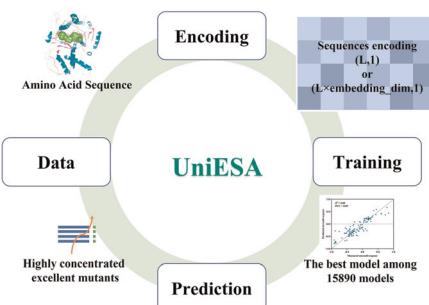
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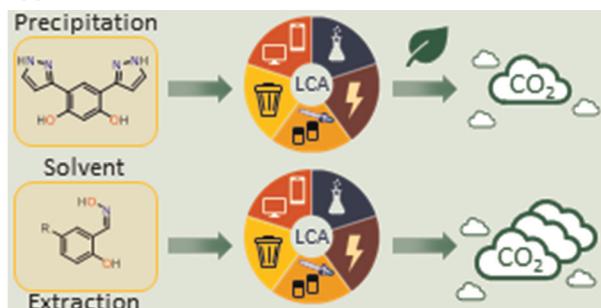
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Recovering copper from e-waste: recyclable precipitation *versus* solvent extraction with carbon emission assessment

Susanna S. M. Vance, Efthalia Chatzisymeon, Carole A. Morrison* and Jason B. Love*

