

Industrial Chemistry & Materials

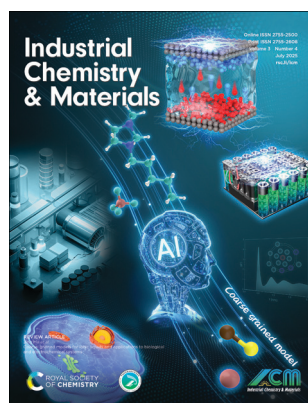
An international journal of significant innovative research and major technological breakthroughs in all aspects of industrial chemistry and materials

rsc.li/icm

The Royal Society of Chemistry is the world's leading chemistry community. Through our high impact journals and publications we connect the world with the chemical sciences and invest the profits back into the chemistry community.

IN THIS ISSUE

ISSN 2755-2500 CODEN ICMNCZ 3(4) 377-500 (2025)



Cover

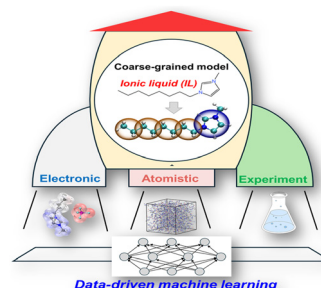
See Jing Ma et al.,
pp. 383–411.
Image reproduced by
permission of Jing Ma
from *Ind. Chem. Mater.*,
2025, 3, 383.

REVIEWS

383

Coarse-grained models for ionic liquids and applications to biological and electrochemical systems

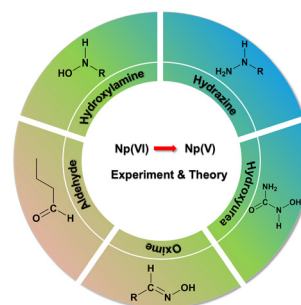
Yang Ge, Qiang Zhu, Xueping Wang and Jing Ma*



412

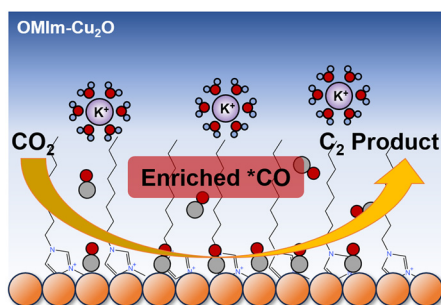
Experimental and theoretical progress on the reduction of Np(VI) with salt-free reagents in the PUREX process

Xin Huang, Xiao-Bo Li, Qun-Yan Wu* and Wei-Qun Shi*



COMMUNICATION

431

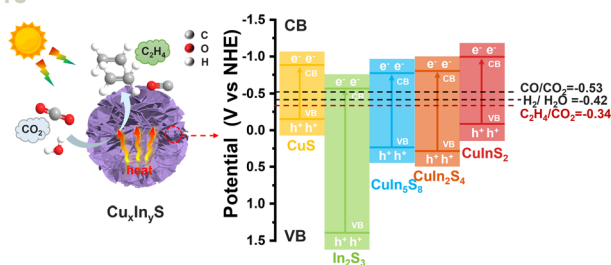


Imidazolium ligand-modified Cu_2O catalysts for enhancing C_{2+} selectivity in CO_2 electroreduction via local $^*\text{CO}$ enrichment

Rongzhen Chen, Ling Zhang and Yuhang Li*

PAPERS

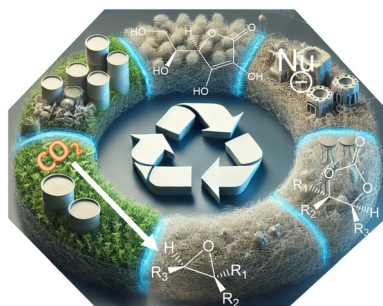
440



Tuning the band gap energy of $\text{Cu}_x\text{In}_y\text{S}$ for superior photothermocatalytic CO_2 conversion to C_2H_4

Longlong Wang, Ruirui Wang,* Shuang Wei, Kexin Li, Hasnain Nawaz, Bin He, Mengyue Li and Ruixia Liu*

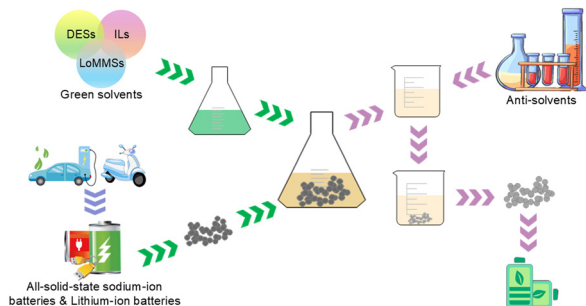
452



Systematic investigation of the role of the epoxides as substrates for CO_2 capture in the cycloaddition reaction catalysed by ascorbic acid

Thalía Ortiz-García, Sergio Posada-Pérez,* Layla El-Khchin, David Dalmau, Juan V. Alegre-Requena,* Miquel Solà, Valerio D'Elia* and Albert Poater*

464



Green recovery of all-solid-state sodium-ion batteries/lithium-ion batteries by ionic liquids, deep eutectic solvents and low-melting mixture solvents

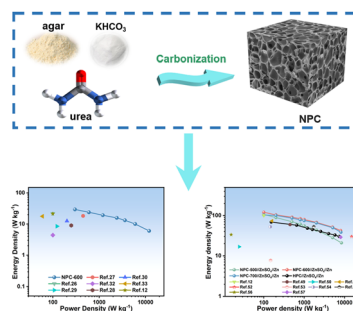
Yu Chen,* Guojian Zhao, Jiayi Dong, Jing Wang, Dexin Dong, Zheng Li, Mengxi Zhao, Zhuojia Shi and Zihang Niu



475

Nitrogen doped hierarchical porous carbon for supercapacitors and zinc ion hybrid capacitors

Jun Ni, Weijian Chen, Xinyang Zhang, Hui Xu, Minghui Zhang* and Xiaoliang Wu*



485

Amorphous nanostructured Ni-Fe oxide as a notably active and low-cost oxygen evolution reaction electrocatalyst for anion exchange membrane water electrolysis

Lorenzo Mirizzi, Mohsin Muhyuddin, Carmelo Lo Vecchio, Erminia Mosca, Vincenzo Baglio, Irene Gatto, Enrico Berretti, Alessandro Lavacchi, Valerio C. A. Ficca, Rosanna Viscardi, Roberto Nisticò* and Carlo Santoro*

