Journal of Materials Chemistry A

Materials for energy and sustainability

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IN THIS ISSUE

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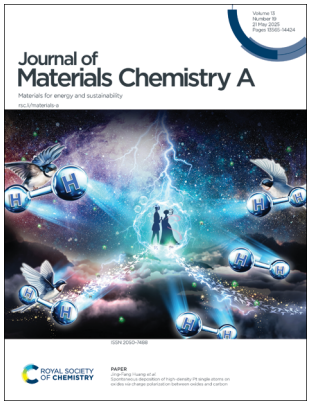

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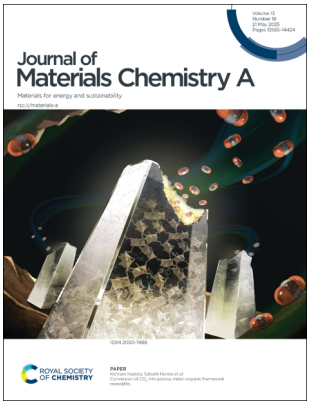
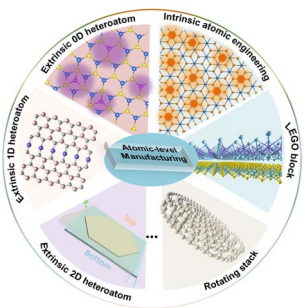
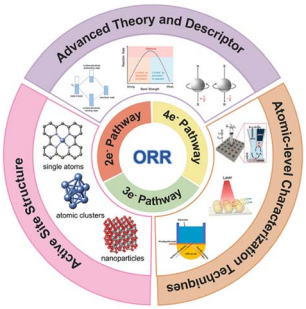
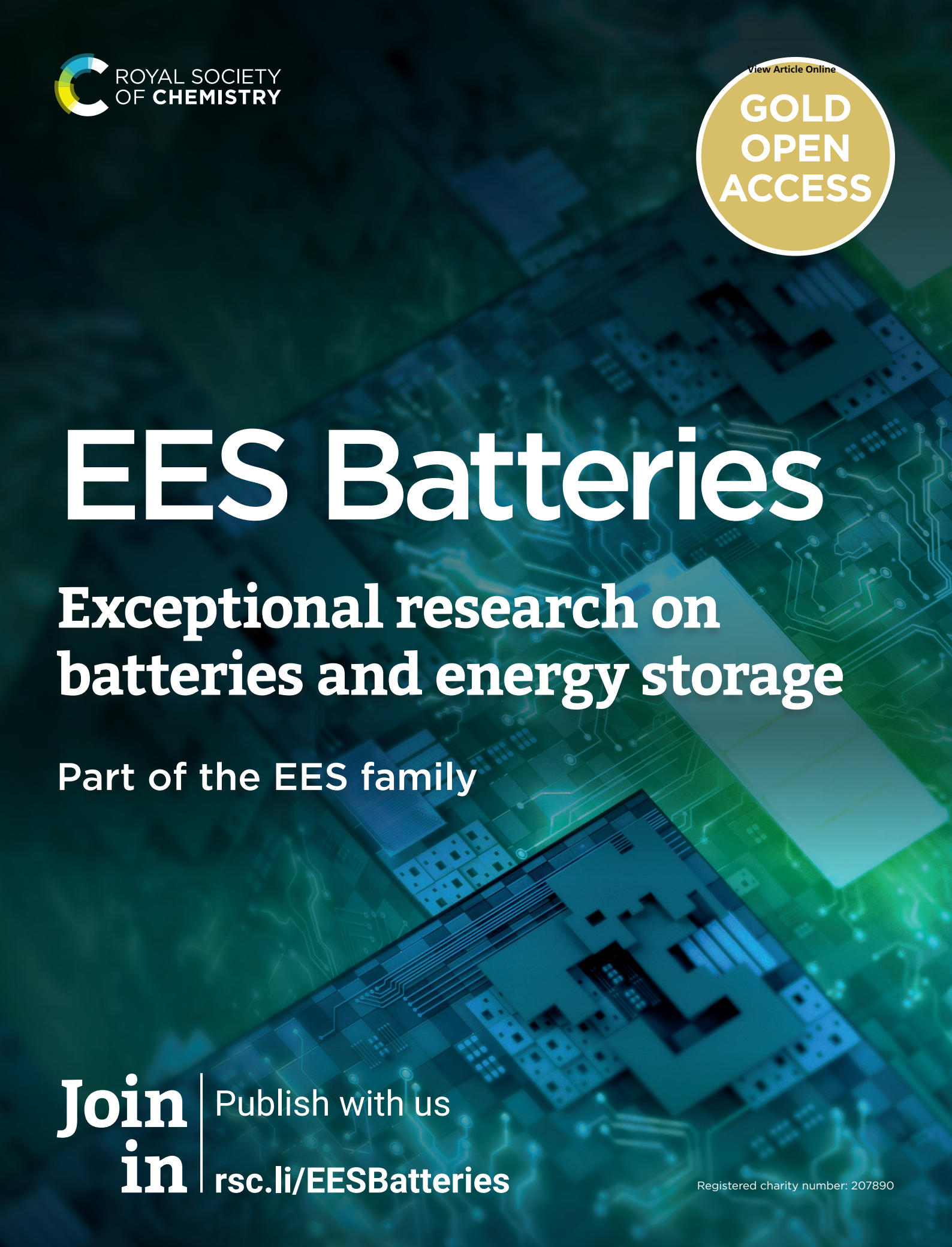


Inside cover
See Kentaro Kadota, Satoshi Horike *et al.*, pp. 13743–13749. Image reproduced by permission of Kentaro Kadota from *J. Mater. Chem. A*, 2025, **13**, 13743.

REVIEWS



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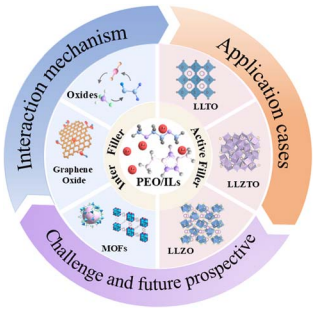

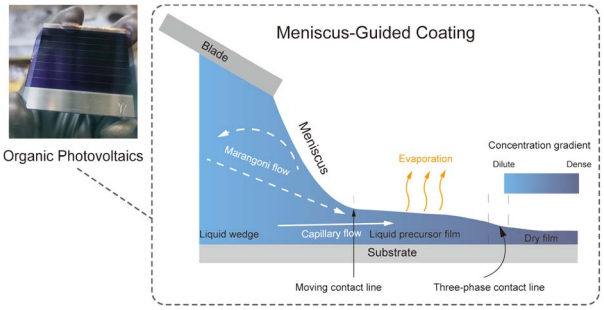

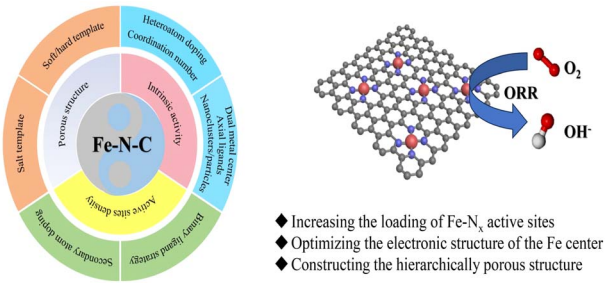

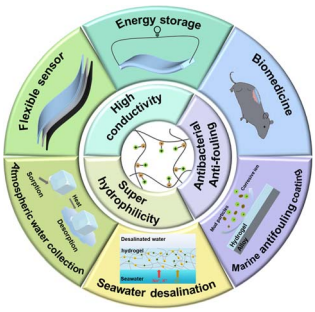

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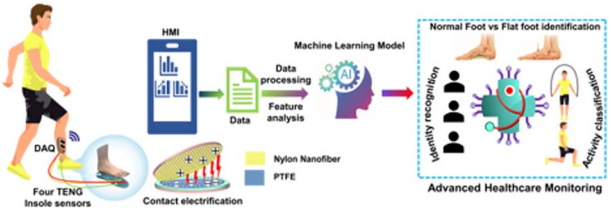

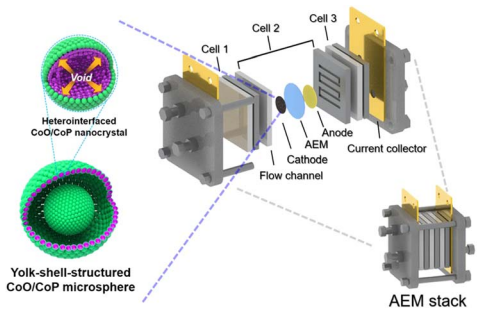

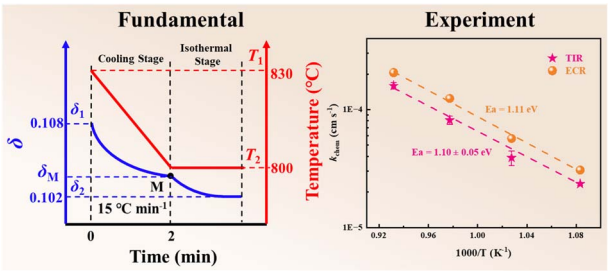

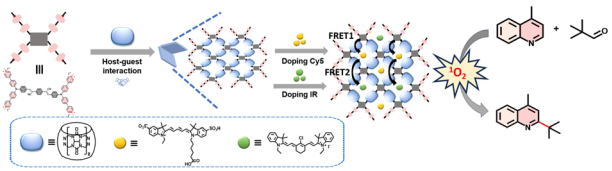

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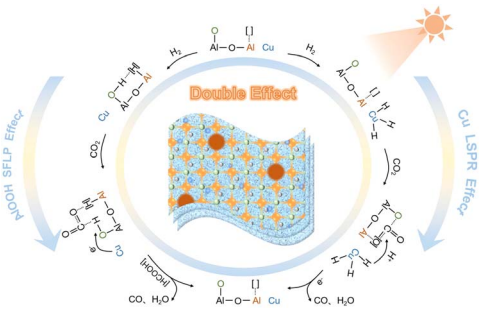

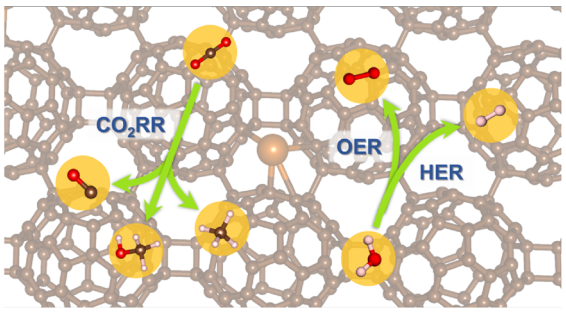

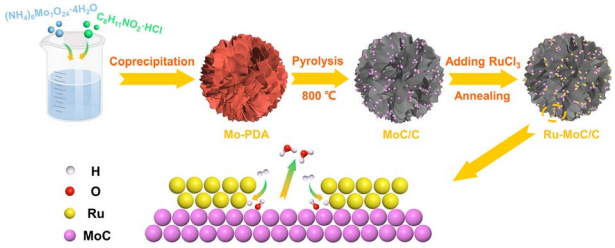

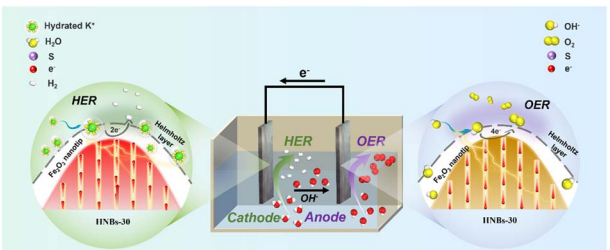

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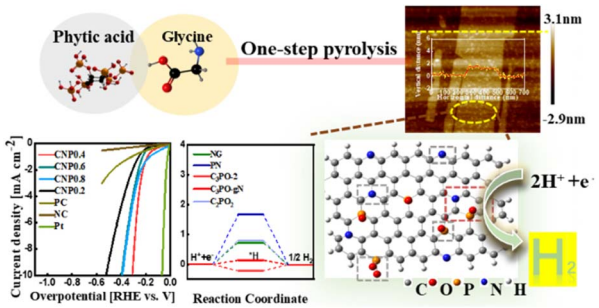
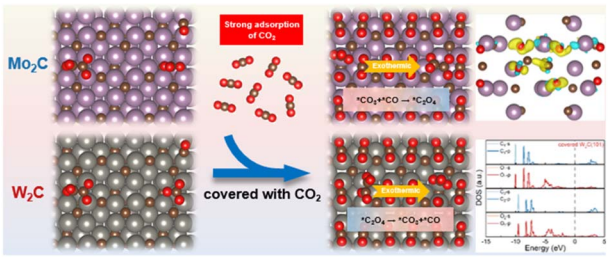


Undemanding synthesis of N,P co-doped carbon nanosheets for the hydrogen evolution reaction: combining experimental quantitative analysis and DFT calculation corroboration

Xinran Yang, Ryuji Takada, Xinyu Li, Kotaro Narimatsu, Koji Miyake,* Yoshiaki Uchida and Norikazu Nishiyama

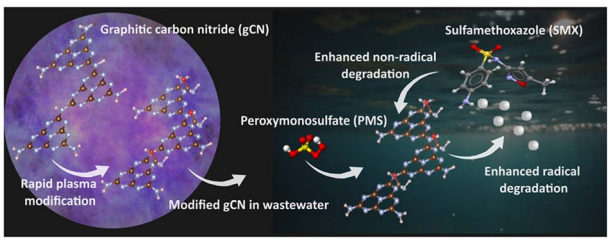
13898



Unveiling the reaction selectivity mechanism of molybdenum and tungsten carbides as cathode catalysts for Li–CO_2 batteries

Haonan Xie, Biao Chen, Chunnian He, Chunsheng Shi, Enzuo Liu* and Naiqin Zhao*

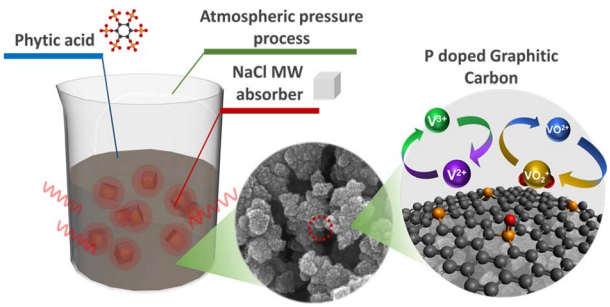
13909



Fast plasma nanomodification of graphitic carbon nitride by amide and carboxyl groups for enhanced sulfamethoxazole degradation in wastewater: detailed experimental and DFT study

František Zažímal,* Shalu Atri, Dušan Plašienka, Lukáš Vrána, Aleš Stýskalík, Aleš Vlk, Mária Čaplovičová, Mojmír Šob, Olivier Monfort and Tomáš Homola

13924



Microwave and NaCl driven synthesis of P-doped graphitic carbon at atmospheric pressure for long-life vanadium redox flow batteries

Heeyeon An, Sieun Jeon, Junseo Park and Yongjin Chung*

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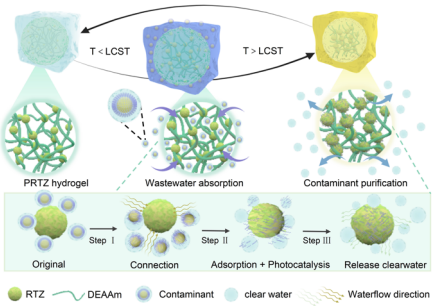

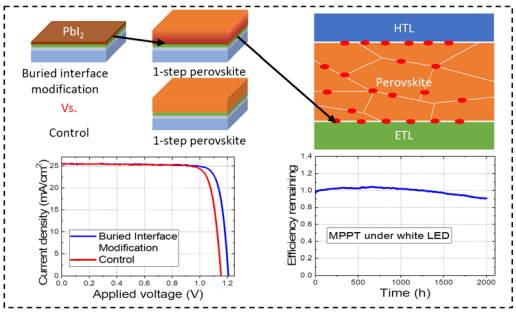

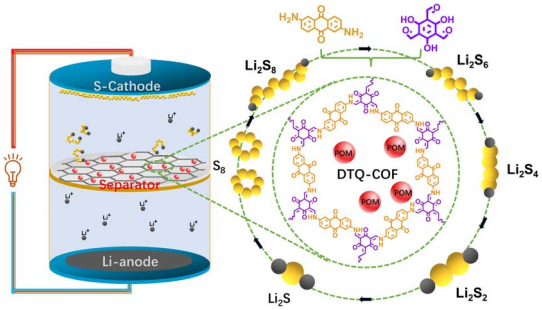

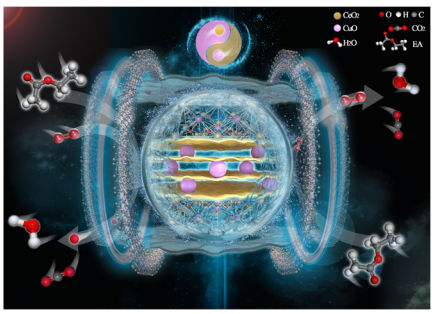

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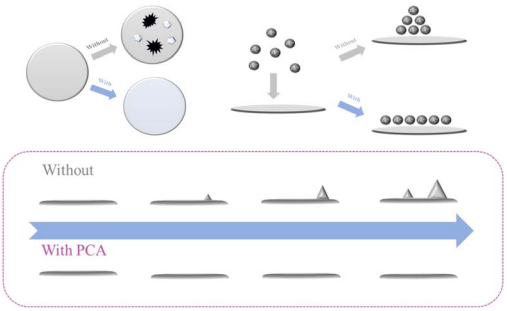

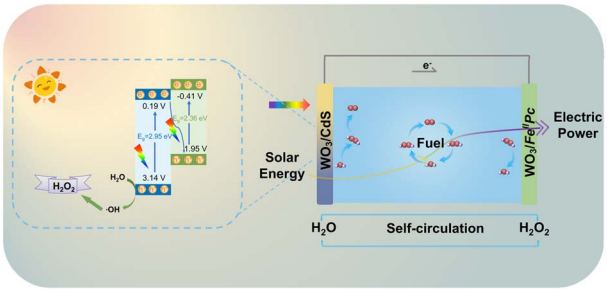

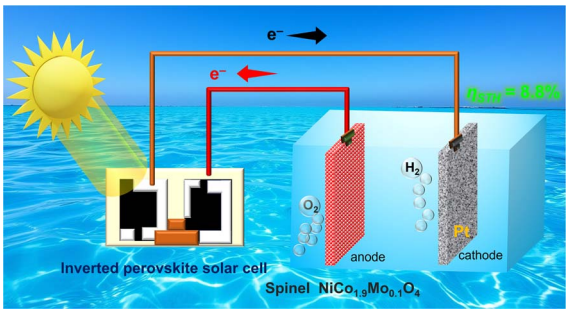

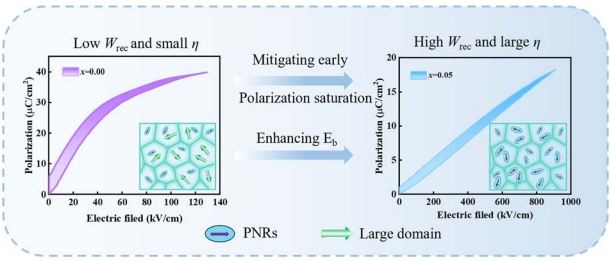

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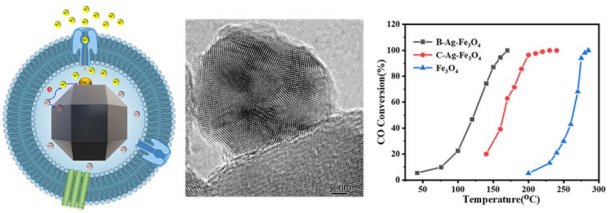
14242

A biological pathway to synthesize Ag/Fe_3O_4 heterostructures with high catalytic performance

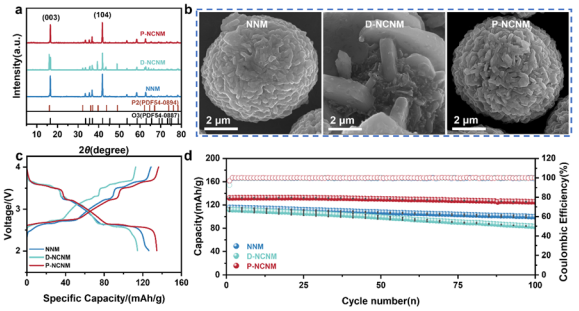
Ye Xiao, Jian Zhang, Junjie Xu, Tianli Liu, Yanhao Dong, Jiesheng Tian* and Chang-An Wang*



14251

Na layer pillar ion post-doping facilitates diffusion kinetics and structural stability in $NaNi_{0.5}Mn_{0.5}O_2$

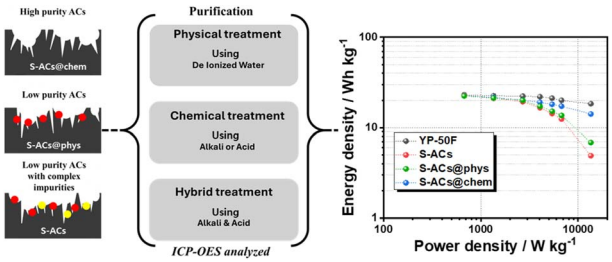
Rui Jin, Shihao Li, Wei Zhou, Yi Zhang, Ziyue Qiu, Yuhang Zhang, Huiru Wang, Jie Li, Yanqing Lai and Zhian Zhang*



14262

Effect of impurities in different activated carbon materials and their in-depth electrochemical analysis in supercapacitor coin-cell devices with organic electrolyte

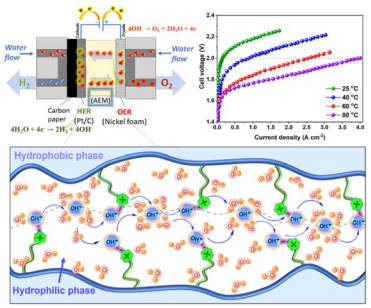
Kye-yeol Lee, Il Yeong Jeong, Jeong-Woo Kim, Seungmin Yu, Hye-Min Lee, Sivaprakasam Radhakrishnan and Byoung-Suhk Kim*



14280

Enhanced ionic conductivity and chemical stability of anion exchange membranes prepared from ether-free poly(biphenyl alkylene piperidinium) with alkyl spacers for water electrolysis

Thi Cam Thach To, Anh Le Mong and Dukjoon Kim*



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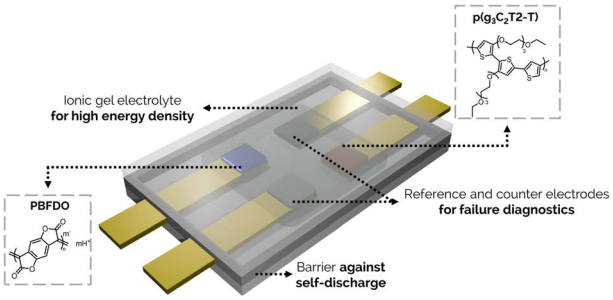

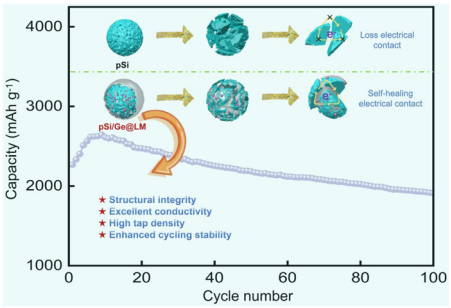

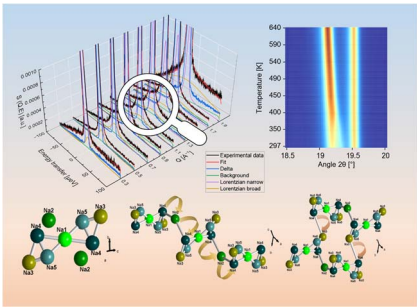

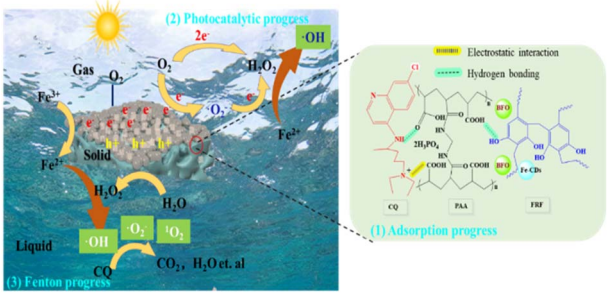

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