

# Journal of Materials Chemistry A

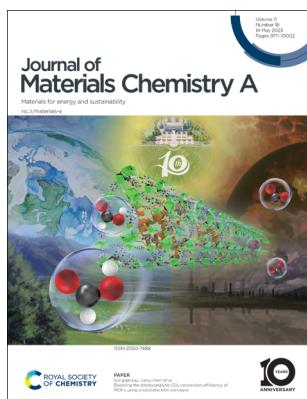
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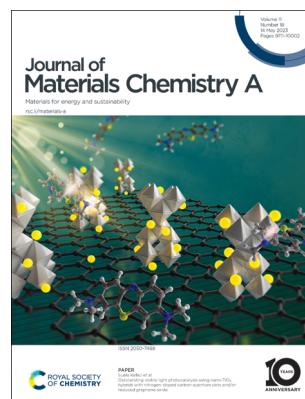
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ISSN 2050-7488 CODEN JMCAET 11(18) 9711–10002 (2023)



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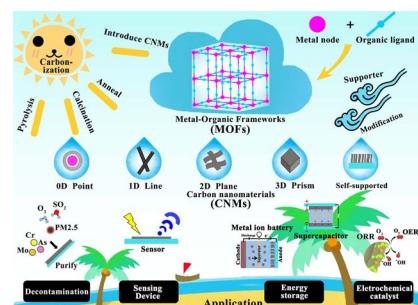
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Shaojie Xu, Anrui Dong, Yue Hu, Zhi Yang, Shaoming Huang and Jinjie Qian\*



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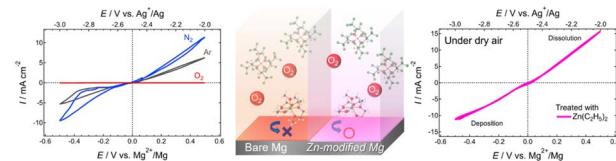


## COMMUNICATIONS

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**Oxygen – a fatal impurity for reversible magnesium deposition/dissolution**

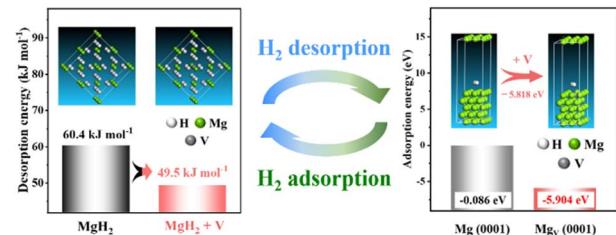
Toshihiko Mandai\* and Mariko Watanabe



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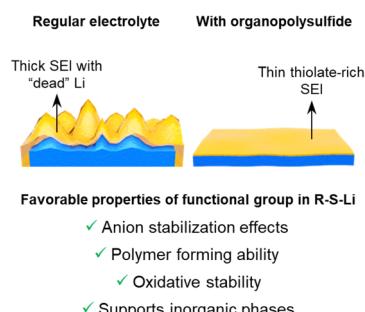
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**Mechanistic understanding of lithium-anode protection by organosulfide-based solid-electrolyte interphases and its implications**

Amruth Bhargav, Hooman Yaghoobnejad Asl and Arumugam Manthiram\*

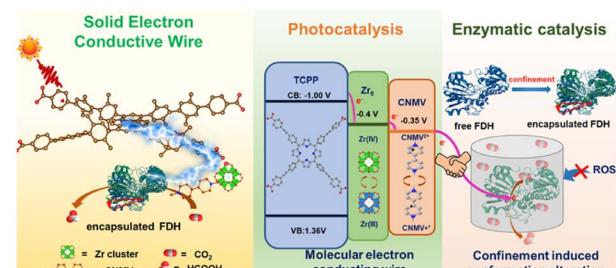


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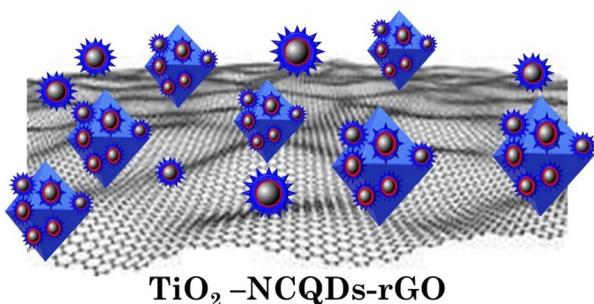
**Boosting the photocatalytic CO<sub>2</sub> conversion efficiency of MOFs using a solid electron conveyor**

Xiaofei Gu, Tianyi Huang, Yixin Hong, Yafeng Wu, Zhi Wang, Yuanjian Zhang, Songqin Liu\* and Jianyu Han\*



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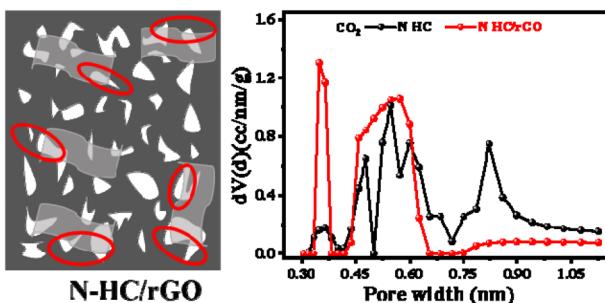
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**Carbon-coating strengthens the solid electrolyte interphase to inhibit Si pulverization**

Xuyang Wang, Yingzhi Li,\* Xinyang Wang, Qingmeng Gan, Zhenyu Wang, Kemeng Liao, Sisi Wu, Hao Guo, Jiangyu Li, Boyuan Huang\* and Zhouguang Lu\*

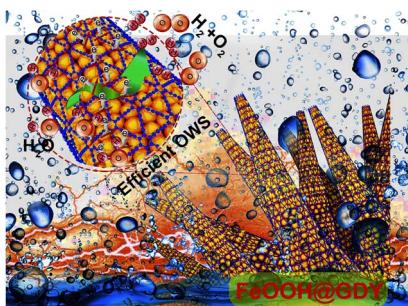
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**Sucrose-derived hard carbon wrapped with reduced graphene oxide as a high-performance anode for sodium-ion batteries**

Shengyuan Li, Hong Yuan, Chuanren Ye, Yizhe Wang, Long Wang, Kun Ni\* and Yanwu Zhu\*

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**Overall water electrolysis on a graphdiyne-iron oxyhydroxide heterostructure**

Xi Chen, Danyan Zhang, Xuchen Zheng, Chao Zhang, Yang Gao, Chengyu Xing, Siao Chen, Han Wu, Yurui Xue\* and Yuliang Li\*

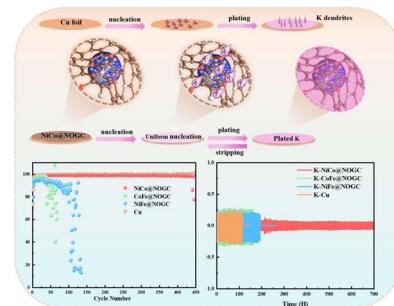


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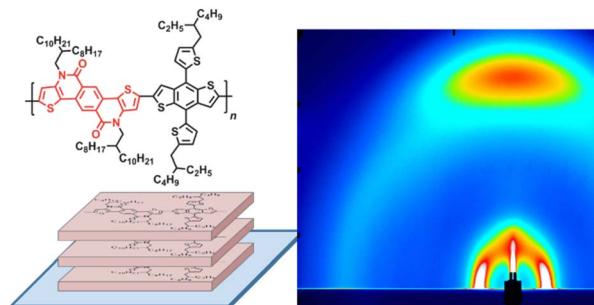
Qing Shen, Yibo He and Junjie Wang\*



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**Fused polycyclic lactam-based  $\pi$ -conjugated polymers for efficient nonfullerene organic solar cells**

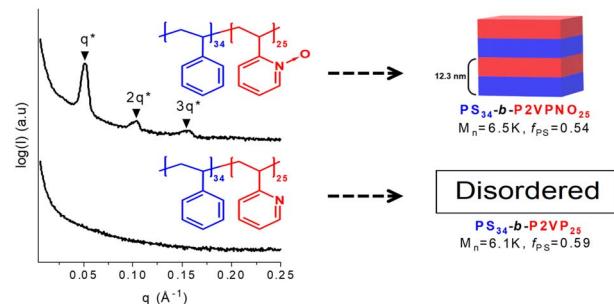
Narumi Sato, Sunbin Hwang, Yuichi Tsuchii and Takuma Yasuda\*



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**High- $\chi$  diblock copolymers containing poly(vinylpyridine-*N*-oxide) segments**

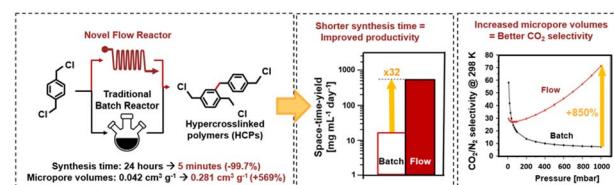
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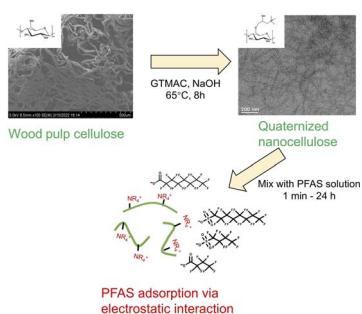
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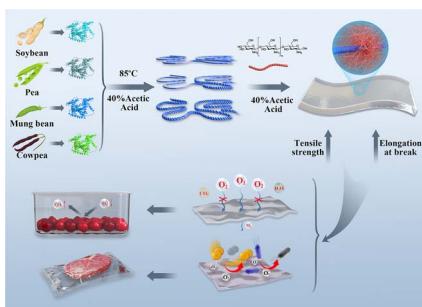
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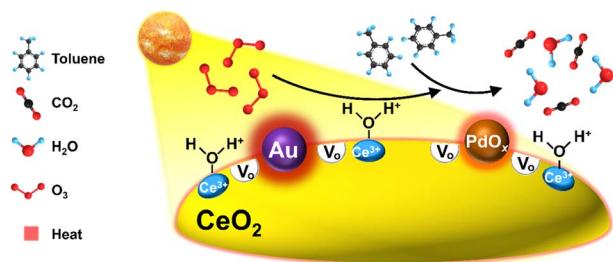
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### Protein fibrillation and hybridization with polysaccharides enhance strength, toughness, and gas selectivity of bioplastic packaging

Yeyang Zhang, Yingqun Nian, Qixin Shi and Bing Hu\*

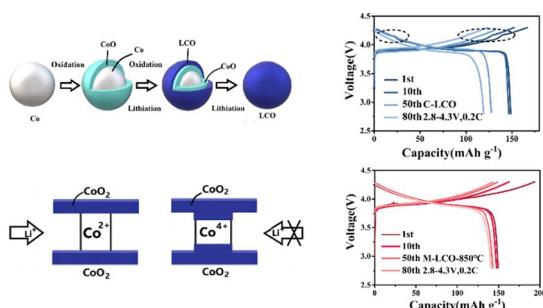
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Junxian Gao, Zhizhang Shen, Yuming Dong, Zhenyu Wang, Jinze Lyu,\* Ji Li\* and Han-Qing Yu\*

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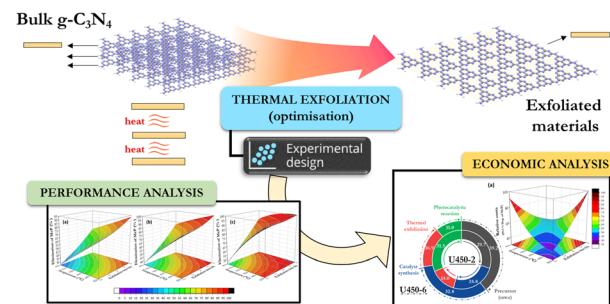


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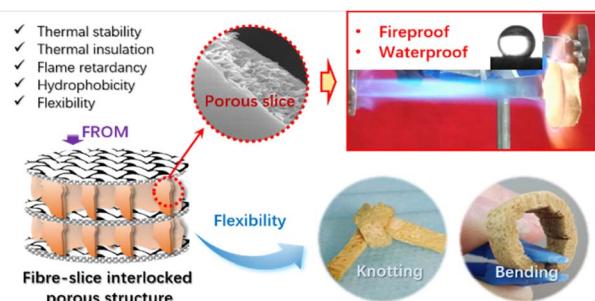
Jorge Plaza, Amaya Arencibia and María José López-Muñoz\*



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## Flexible and interlocked quartz fibre reinforced dual polyimide network for high-temperature thermal protection

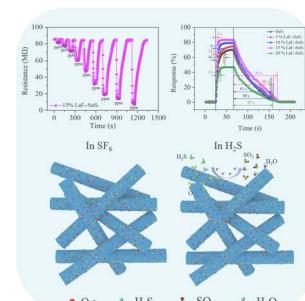
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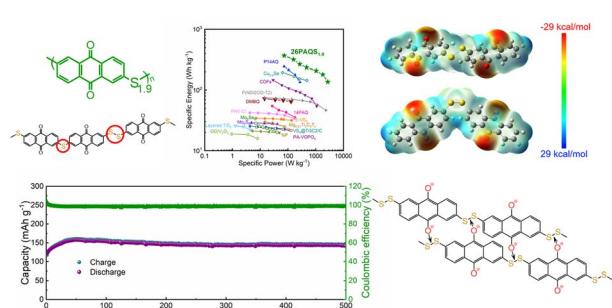
Mingcong Tang, Zijian Wang, Dongyue Wang, Ruiyuan Mao, Hao Zhang, Wei Xu, Zhe Yang\* and Dongzhi Zhang\*



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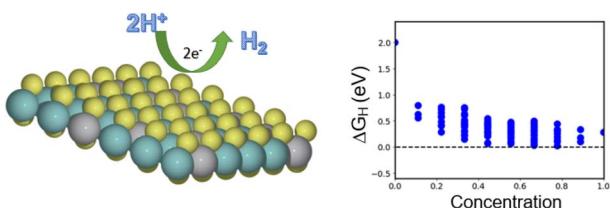
## Poly(2,6-anthraquinonyl disulfide) as a high-capacity and high-power cathode for rechargeable magnesium batteries: extra capacity provided by the disulfide group

Xin Ren, Donggang Tao, Yudi Tang, Yuliang Cao and Fei Xu\*



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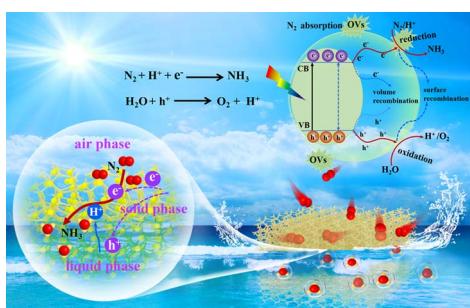
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**Basal plane activation of two-dimensional transition metal dichalcogenides *via* alloying for the hydrogen evolution reaction: first-principles calculations and machine learning prediction**

Yiqing Chen, Ying Zhao, Pengfei Ou\* and Jun Song\*

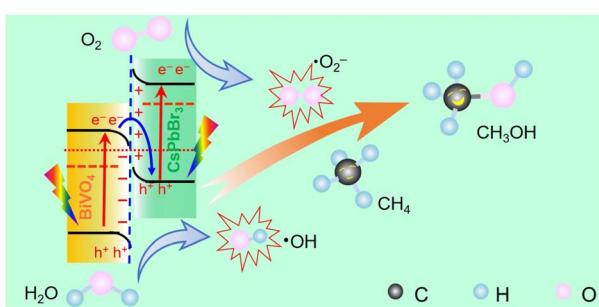
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**A bioinspired floatable system with a 3D sandwich-type triphase interface for highly efficient nitrogen fixation**

Xiuyan Wang, Xinjian Shi, Shengyan Yin, Ping She, Jiaqi Zheng, Yudong Song and Hang Sun\*

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Guang-Xing Dong, Meng-Ran Zhang, Ke Su, Zhao-Lei Liu, Min Zhang\* and Tong-Bu Lu\*

