# Journal of Materials Chemistry A

Materials for energy and sustainability

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## IN THIS ISSUE

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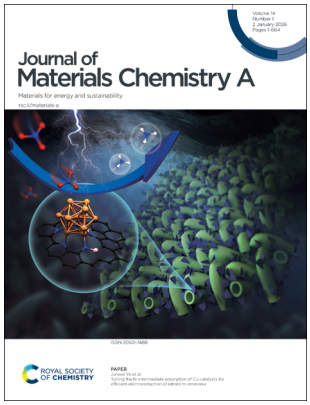


**Cover**
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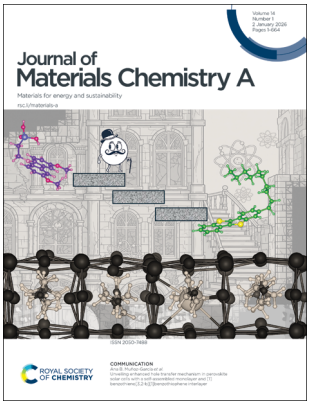
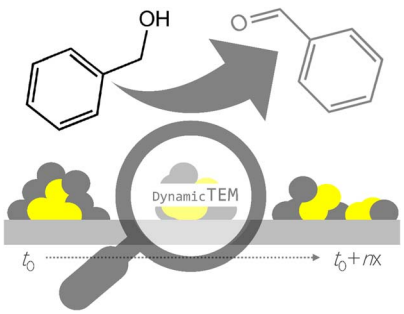



**Inside cover**
See Ana B. Muñoz-García *et al.*, pp. 313–319. Image reproduced by permission of Ana B. Muñoz-García from *J. Mater. Chem. A*, 2026, **14**, 313. Image generated with AI.

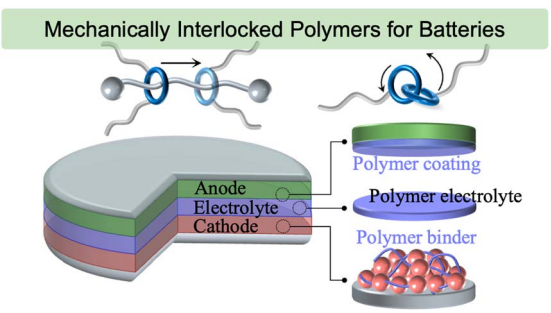
## HIGHLIGHT

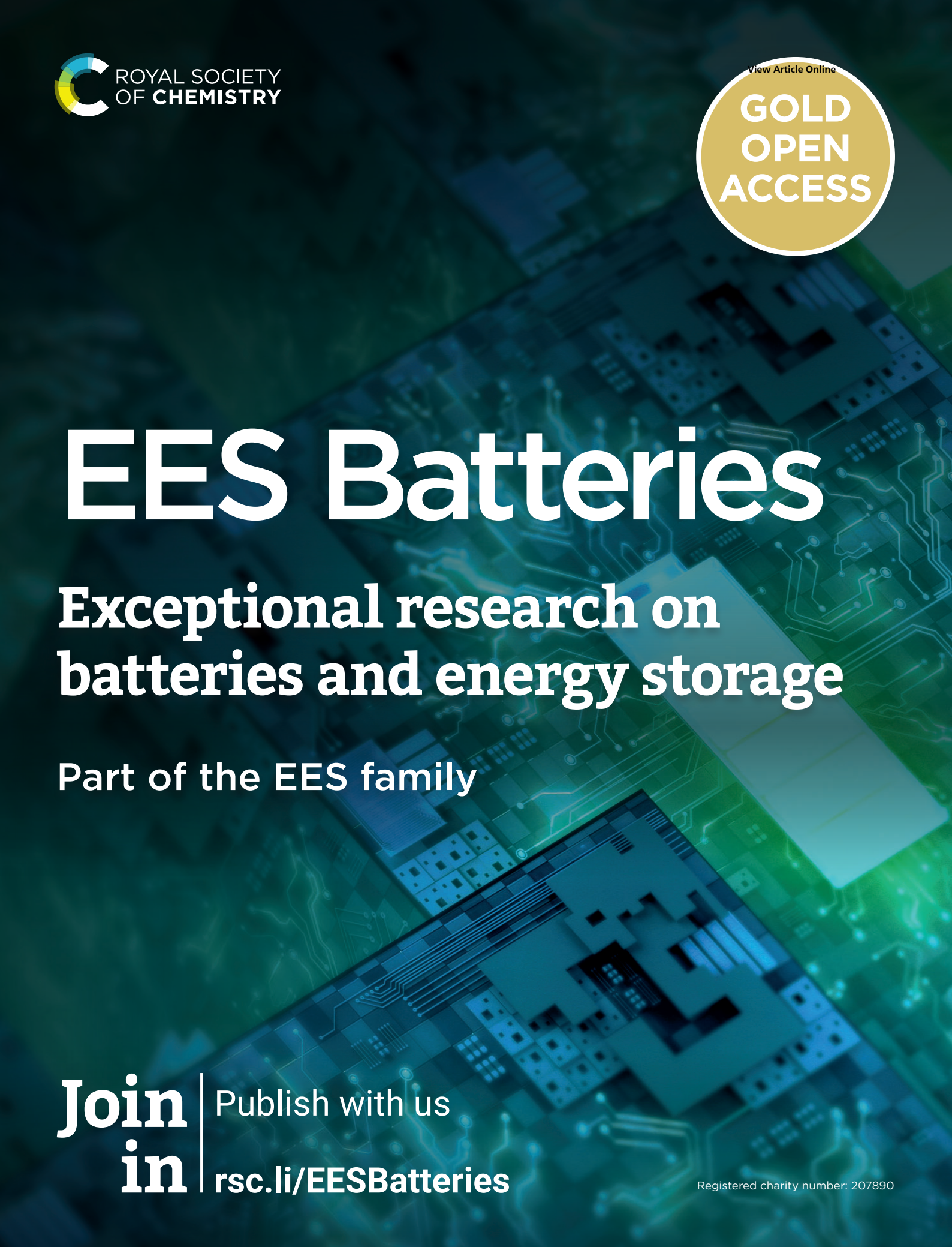





## REVIEWS



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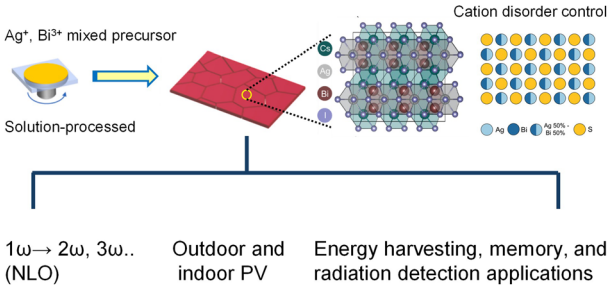
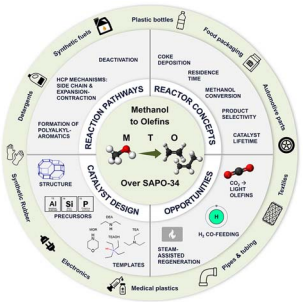
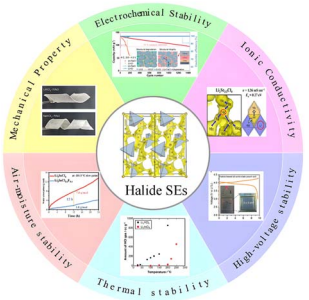


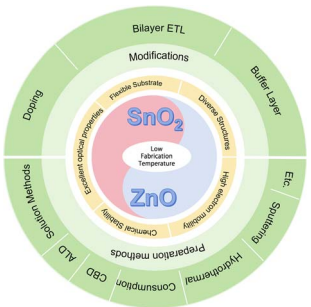






## REVIEWS

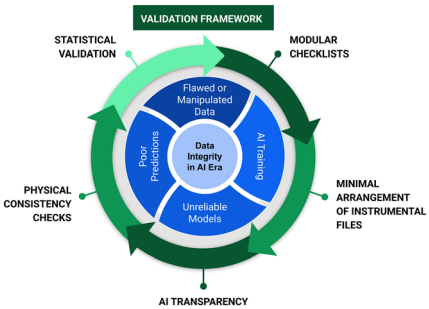



### Radiative cooling materials and strategies for suppressing ice melting and enabling passive cold-chain management

Cheng-Yu He, Xu-Yan Xu, Ying-Ying Wu, Ge-Ting Sun, Qi-Sen Wang, Yong-Zhi Zhang, Rui-Ting Gao and Xiang-Hu Gao*

## PERSPECTIVES

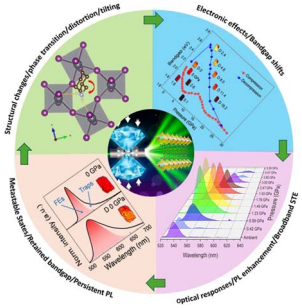





### Data integrity in materials science in the era of AI: balancing accelerated discovery with responsible science and innovation

Nik Reeves-McLaren* and Sarah Moth-Lund Christensen



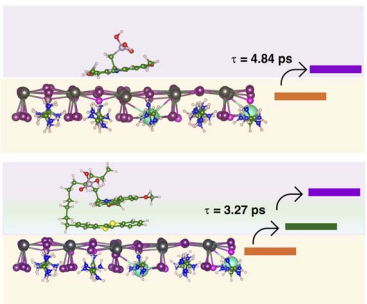


### Pressure-tuned 2D hybrid perovskites: emerging insights and future opportunities

Aditya Kutty and Yang Song*

## COMMUNICATIONS






### Unveiling enhanced hole transfer mechanism in perovskite solar cells with a self-assembled monolayer and [1]benzothieno[3,2-b][1] benzothiophene interlayer

Adriana Pecoraro, Francesca Fasulo, Michele Pavone, Aldo Di Carlo and Ana B. Muñoz-García*

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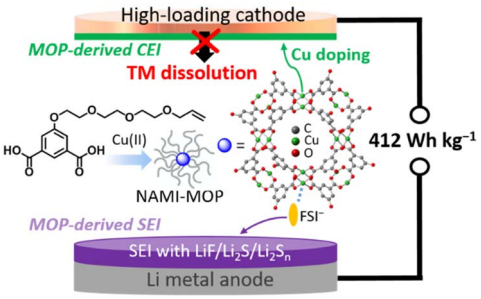




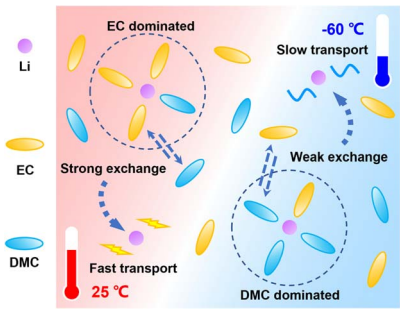




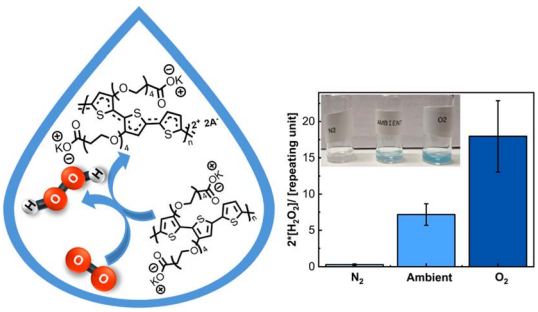




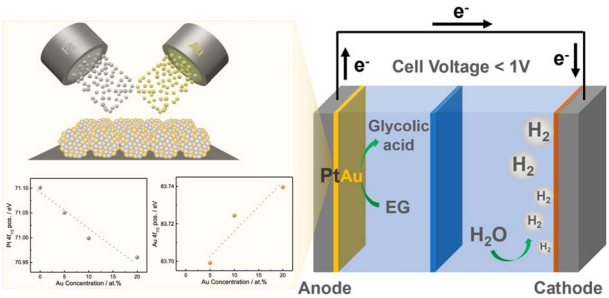

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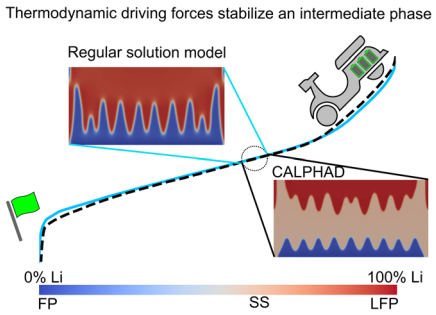


### Consecutive intra-particle phase transitions in the $LiFePO_4$ battery electrode material

Souzan Hammadi, Nana Ofori-Opoku, Daniel Brandell and Peter Broqvist*

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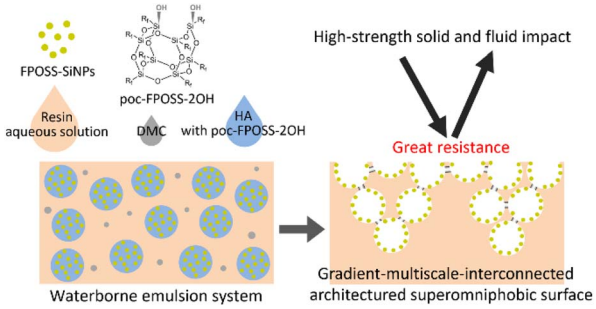


### Gradient-multiscale-interconnected architectures enable waterborne superomniphobic surfaces to resist the high-strength impact of solids and fluids

Fang Suo, Boxu Chen, Zhenqiang Lin, Xin Yan, Yinglei Zhai, Jinyi Zhong and Jingwen Liao*

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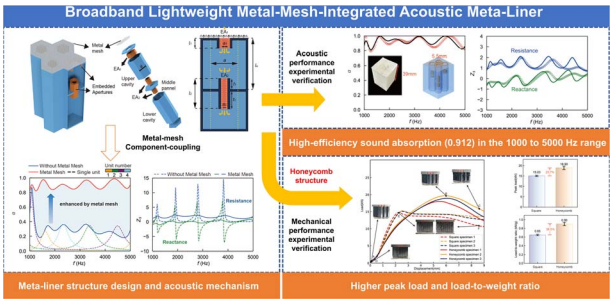


### Broadband lightweight metal-mesh-integrated acoustic metaliner

Yujie Cheng, Hua Ding, Yilong Yang, Nengyin Wang, Tongwei Lu, Kai Zhang, Yabin Jin* and Yong Li*

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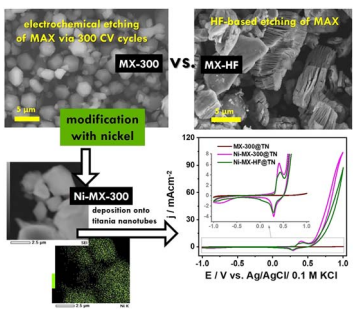
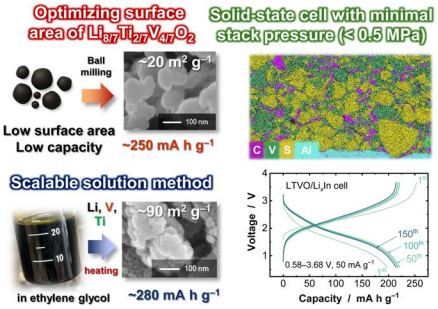



### Electrocatalytic activity of 1D/3D $TiO_2$ tubular layers/Ni-modified MXene microsphere heterojunction electrodes

Dujearic-Stephane Kouao,* Agnieszka Kramek, Justyna Gumieniak, Karol Załęski, Emerson Coy, Jakub Karczewski, Guowei Li and Katarzyna Siuzdak*

## COMMUNICATIONS



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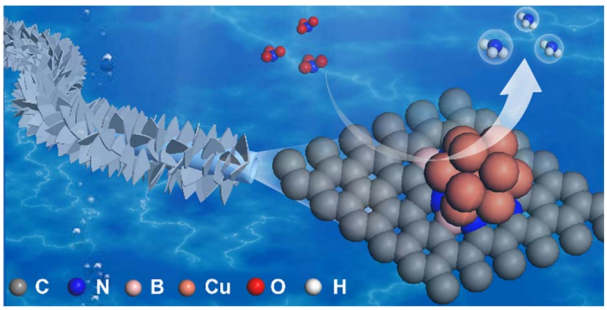




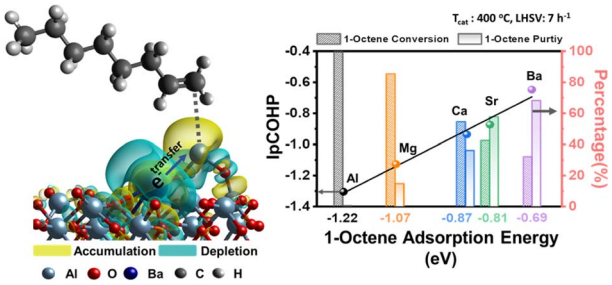




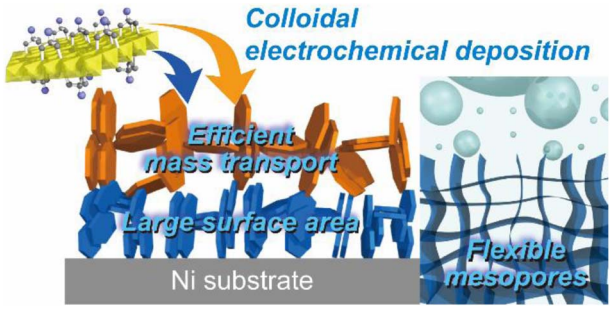

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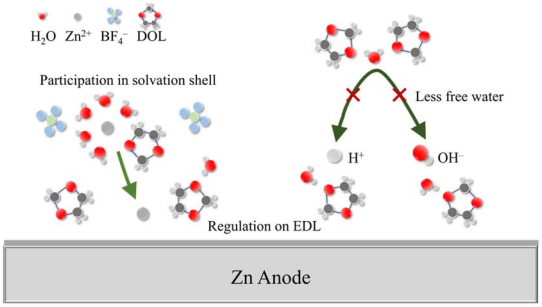




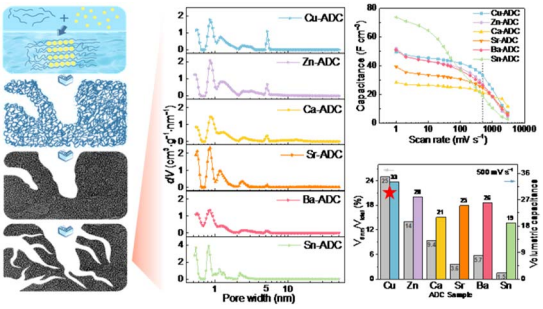




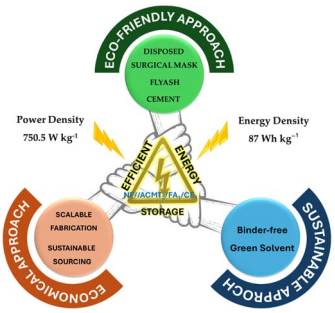




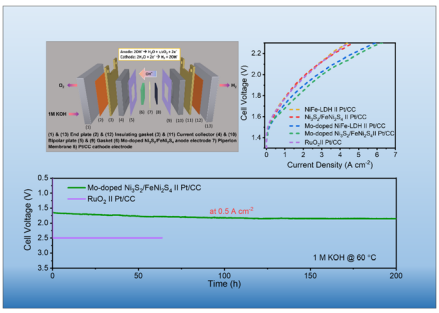

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