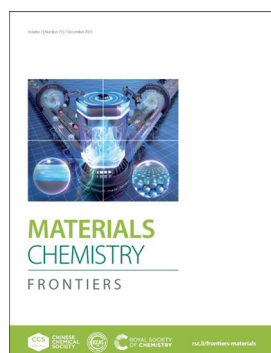


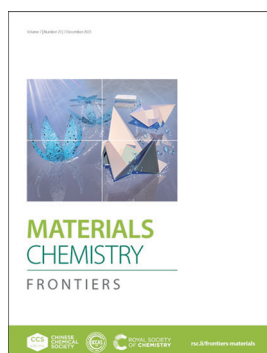
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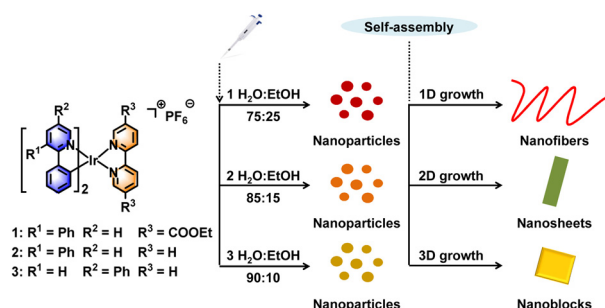
See Jinhye Bae *et al.*, pp. 5989–6034. Image reproduced by permission of Jinhye Bae from *Mater. Chem. Front.*, 2023, 7, 5989.

### RESEARCH ARTICLES

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#### Controllable 1D, 2D and 3D supramolecular assemblies of Ir(III) complexes

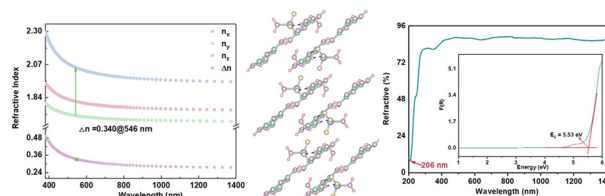
Yifan Lin, Yan Chen, Rui Cai, Hao Zhang\* and Chun Liu\*



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#### $\text{C}_3\text{N}_6\text{H}_7\text{SO}_3\text{NH}_2$ : non- $\pi$ -conjugated tetrahedra decoupling $\pi$ -conjugated groups achieving large optical anisotropy and wide band gap

Danyang Dou, Qi Shi, Yunjie Bai, Cheng Chen, Bingbing Zhang and Ying Wang\*



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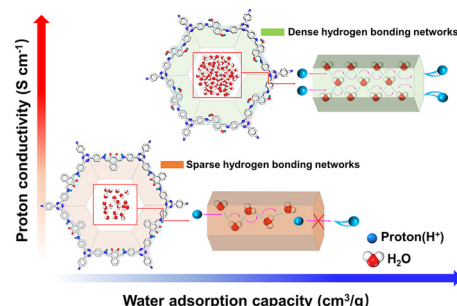


## RESEARCH ARTICLES

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### Covalent organic frameworks confining ultra-dense hydrated hydrogen-bond networks for efficient intrinsic proton conduction

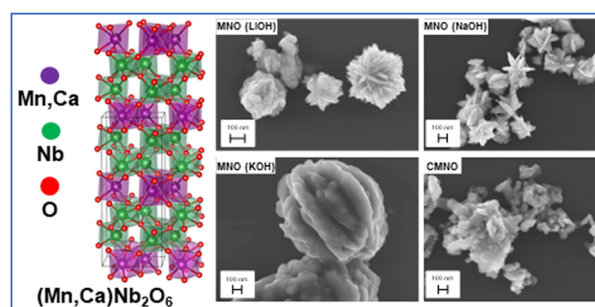
Ruo-Meng Zhu, Jia-Xing Fu, Liang-Hui Chen, Jing-Dong Feng and Zhi-Guo Gu\*



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### Morphological control of $\text{Ca}_x\text{Mn}_{1-x}\text{Nb}_2\text{O}_6$ columbites for use as lithium hosts in batteries

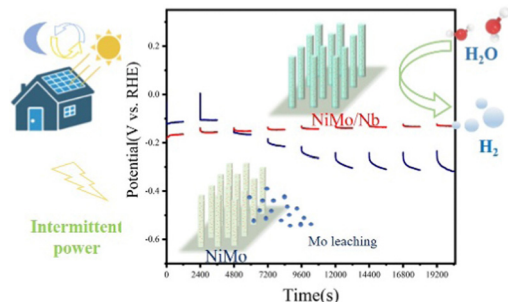
Wilgner Lima da Silva, Marc Walker, Rogério M. Ribas, Robson S. Monteiro, Emma Kendrick\* and Richard I. Walton\*



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### $\text{NbO}_x$ overlayers protecting a NiMo alloy electrode realizing high-efficiency and durable intermittent water electrolysis

Qilong Liu, Wentuan Bi,\* Jiaqi Guan, Chong Xiao\* and Yi Xie

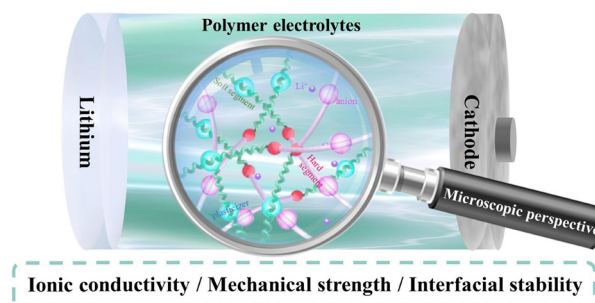


## REVIEWS

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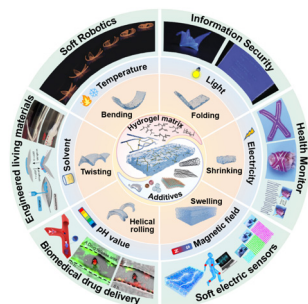
### Practical challenges and future perspectives of solid polymer electrolytes: microscopic structure and interface design

Maoning Geng, Gang Su, Sheng Huang, Shuanjin Wang, Min Xiao, Dongmei Han\* and Yuezhong Meng\*



## REVIEWS

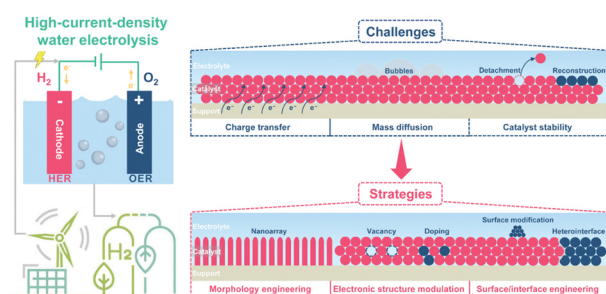
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### 3D shape morphing of stimuli-responsive composite hydrogels

Xiao Li, Minghao Li, Lisa Tang, Diwei Shi, Emily Lam and Jinhye Bae\*

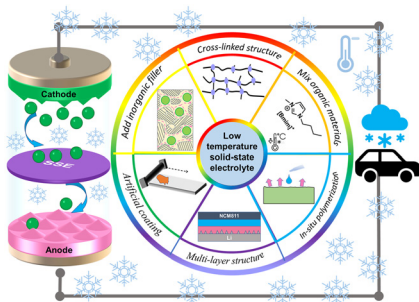
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### Rational design of efficient electrocatalysts for hydrogen production by water electrolysis at high current density

Yuchi Wan, Lingxi Zhou and Ruitao Lv\*

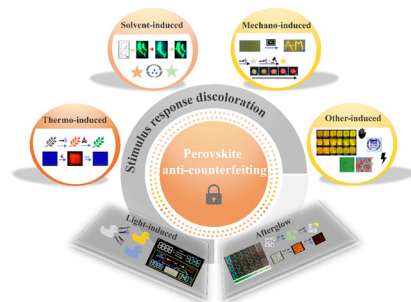
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### Recent advances in designing solid-state electrolytes to reduce the working temperature of lithium batteries

Zhicheng Yao, Yutong Wang, Shuang Wan, Weiting Ma, Junfeng Rong, Ying Xiao,\* Guolin Hou\* and Shimou Chen\*

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### Variable halide perovskites: diversification of anti-counterfeiting applications

Yingrui Shi, Shuangyi Zhao,\* Yong Zhou\* and Zhigang Zang\*

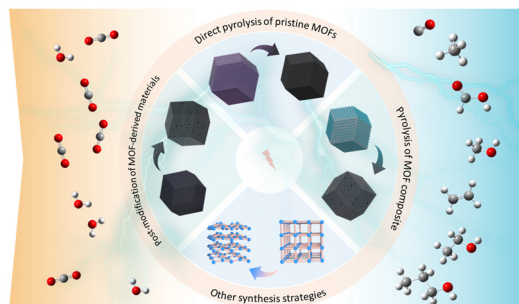


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Application of MOF-derived materials as electrocatalysts for CO<sub>2</sub> conversion

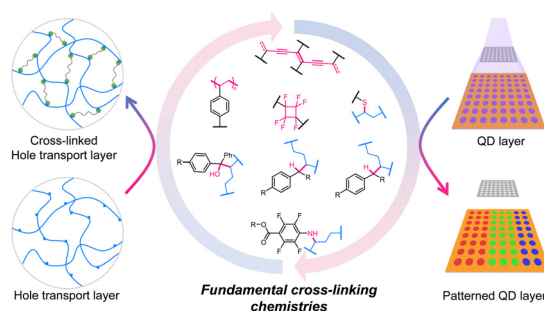
Jiahe Li, Haiqiang Luo, Bo Li,\* Jian-Gong Ma and Peng Cheng\*



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## Cross-linking strategies for hole transport/emissive layers in quantum-dot light-emitting diodes

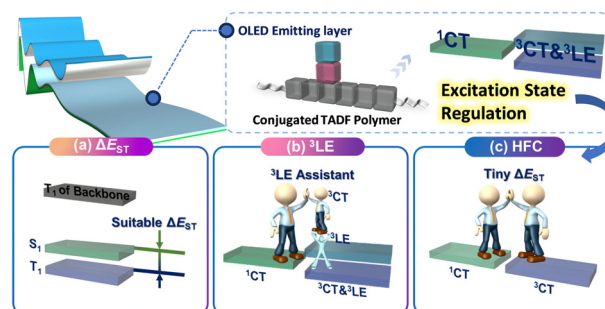
Yuan-Qiu-Qiang Yi\* and Wenming Su\*



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## Recent advances in regulating the excited states of conjugated thermally activated delayed fluorescence polymers for high-efficiency OLEDs

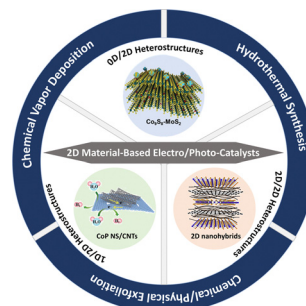
Maoqiu Li, Lei Hua, Junteng Liu\* and Zhongjie Ren\*



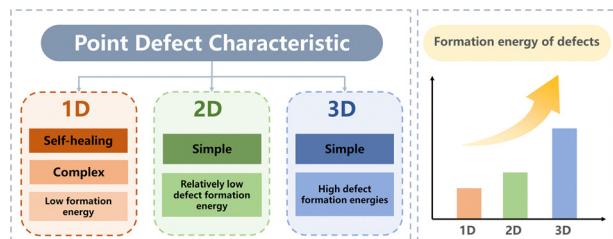
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## Heterostructured 2D material-based electro-/photo-catalysts for water splitting

Eunseo Heo, Seungmin Lee and Hyeonseok Yoon\*







## Dimension-dependent intrinsic point defect characteristics of binary photovoltaic materials

Zhi-yuan Cai, Yue-hao Gu, Wen-hao Liang,  
Rong-feng Tang\* and Tao Chen\*

