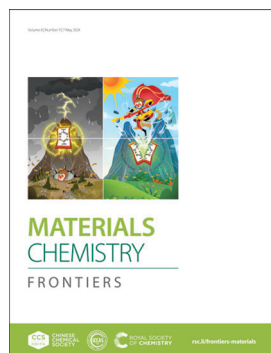


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#### Cover

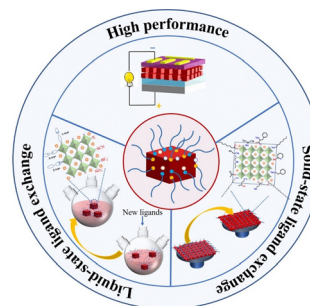
See Xiaogang Liu *et al.*, pp. 2135–2141. Image reproduced by permission of Xiaogang Liu from *Mater. Chem. Front.*, 2024, **8**, 2135.

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#### Surface engineering in CsPbX<sub>3</sub> quantum dots: from materials to solar cells

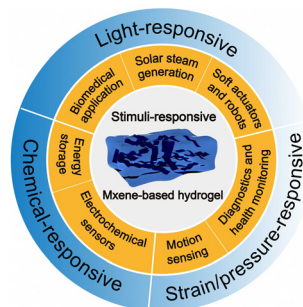
Yinyan Xu, Mei Lyu and Jun Zhu\*



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Qi Gao, Ping-Ping He, Xiaowen Wang, Xiaoxue Du and Weiwei Guo\*



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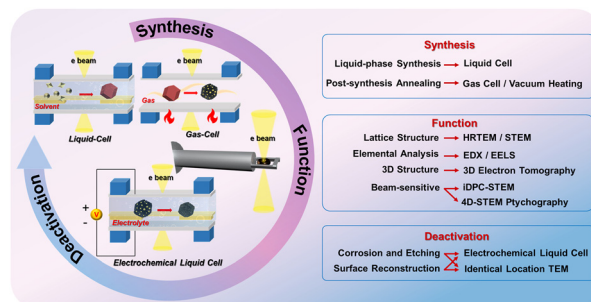


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## Emerging transmission electron microscopy solutions for electrocatalysts: from synthesis to deactivation

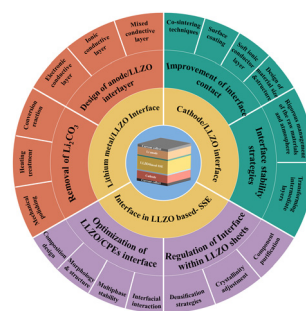
Le Wei, Zhanyong Xu, Xiaomei Wu, Xiaoxing Ke\* and Manling Sui\*



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## Optimization strategies for key interfaces of LLZO-based solid-state lithium metal batteries

Jiangwei Chu, Ziwei Li, Jin Wang, Gang Huang\* and Xinbo Zhang\*

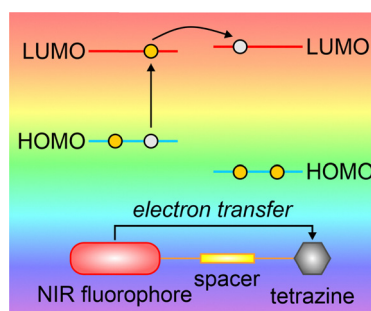


## RESEARCH ARTICLES

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## Photoinduced electron transfer endows fluorogenicity in tetrazine-based near-infrared labels

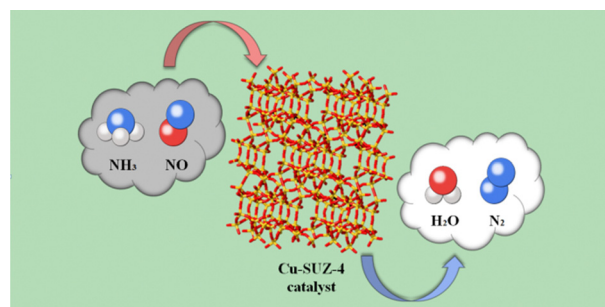
Tianruo Shen, Xin Li and Xiaogang Liu\*



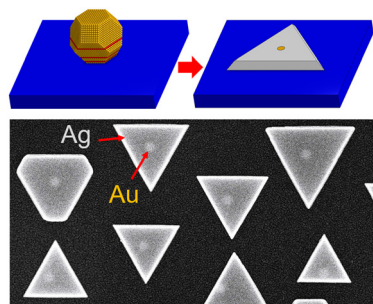
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Copper-exchanged SUZ-4 zeolite catalysts for selective catalytic reduction of NO<sub>x</sub>

Yang Bai, Dapeng Hao, Yingzhen Wei, Jinfeng Han, Dan Li, Mengyang Chen\* and Jihong Yu\*



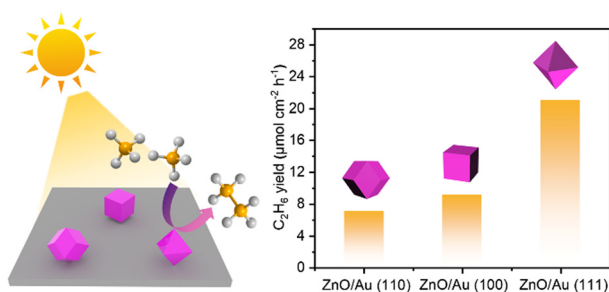
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### Large-area arrays of epitaxially aligned silver nanotriangles seeded by gold nanostructures

Zachary R. Lawson, Kaikui Xu, Christina Boukouvala, Robert A. Hughes, Matthew R. Rosenberger, Emilie Ringe and Svetlana Neretina\*

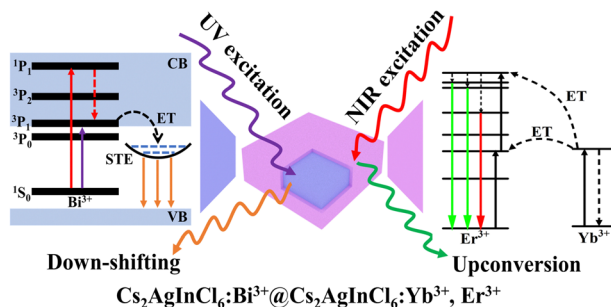
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Zhuo Liu, Biyang Xu, Xuanzhao Lu, Pan Li, Jun-Jie Zhu and Wenlei Zhu\*

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### Simultaneously excited downshifting/upconversion luminescence from lanthanide-doped core-shell lead-free perovskite nanocrystals for encryption and data storage

Endian Cui, Gaoyuan Xing, Xiangyang Yuan, Yi Zhang, Flavia Artizzu, Xiaoling Liao, Jianfeng Tang, Yanan Zhao, Pengzhou Zhao, Kai Liu\* and Jing Liu\*

