

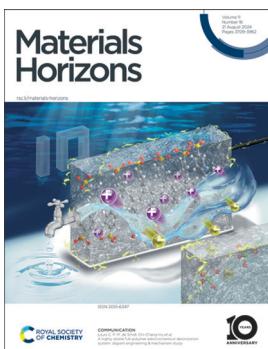
Materials Horizons

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Cover

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2024, 11, 3792.

EDITORIAL

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Horizons Community Board collection: setting new trends in energy storage and harvesting through innovative approaches

Satyajit Ratha* and Edison Huixiang Ang*

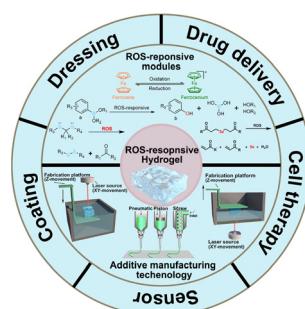


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ROS-responsive hydrogels: from design and additive manufacturing to biomedical applications

Minju Pu, Huan Cao, Hengjie Zhang, Tianyou Wang,
Yiwen Li, Shimeng Xiao* and Zhipeng Gu*



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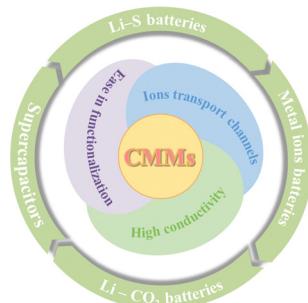


REVIEWS

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Porous crystalline conjugated macrocyclic materials and their energy storage applications

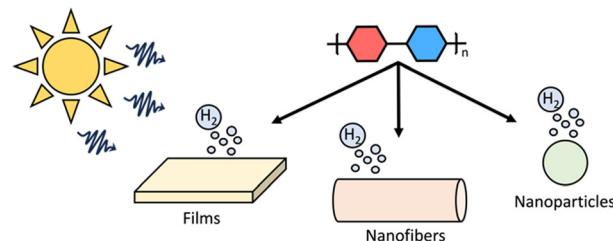
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Processing polymer photocatalysts for photocatalytic hydrogen evolution

Richard Jack Lyons and Reiner Sebastian Sprick*

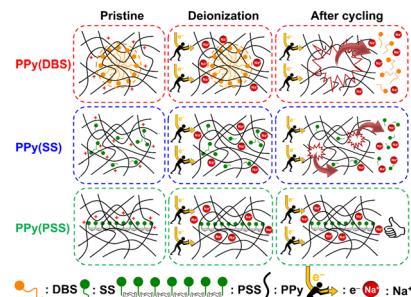


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A highly stable full-polymer electrochemical deionization system: dopant engineering & mechanism study

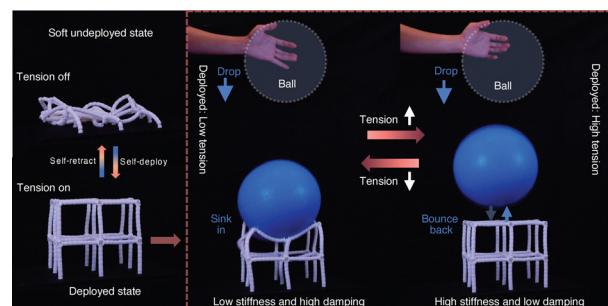
Yi-Heng Tu, Hung-Yi Huang, Yu-Hsiang Yang, Louis C. P. M. de Smet* and Chi-Chang Hu*



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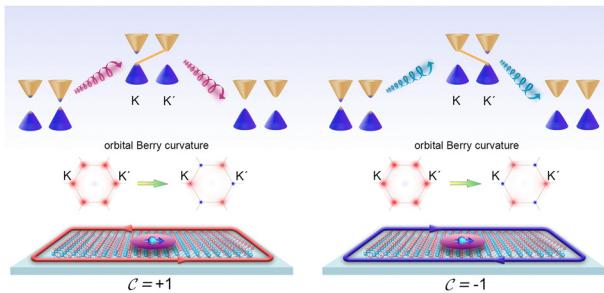
Self-deployable contracting-cord metamaterials with tunable mechanical properties

Wenzhong Yan,* Talmage Jones, Christopher L. Jawetz, Ryan H. Lee, Jonathan B. Hopkins and Ankur Mehta



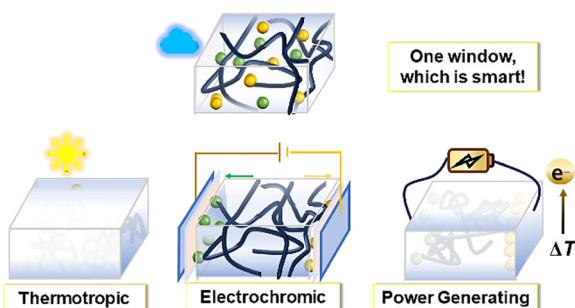
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**Floquet engineering of the orbital Hall effect and valleytronics in two-dimensional topological magnets**

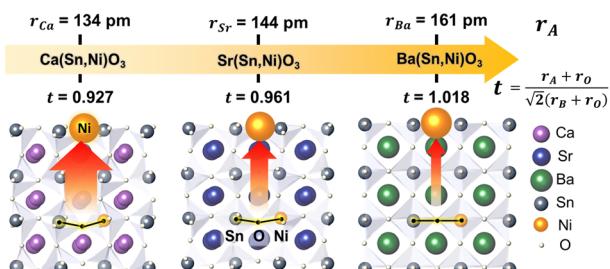
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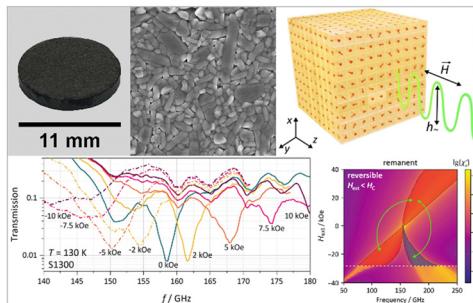
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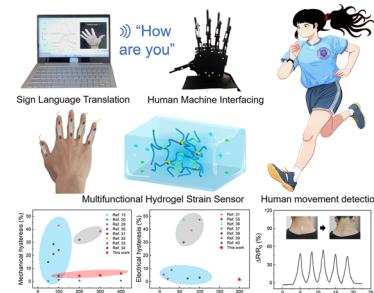


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Low hysteresis, water retention, anti-freeze multifunctional hydrogel strain sensor for human–machine interfacing and real-time sign language translation

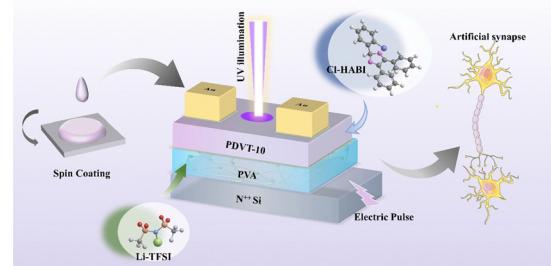
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A high-performance organic lithium salt-doped OFET with the optical radical effect for photoelectric pulse synaptic simulation and neuromorphic memory learning

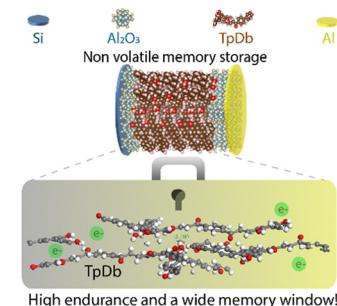
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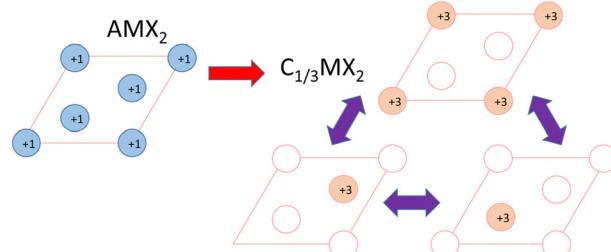
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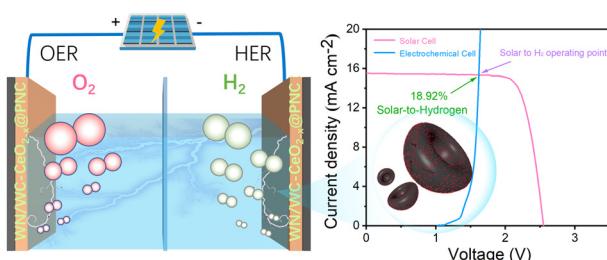
Quantized ferroelectricity in multivalent ion conductors with non-polar point groups

Xuechen Wang and Menghao Wu*



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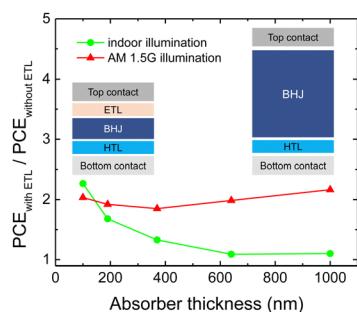
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Treasure-bowl style bifunctional site in cerium–tungsten hetero-clusters for superior solar-driven hydrogen production

Pengliang Sun, Eduardo Gracia-Espino, Fang Tan, Hua Zhang, Qingquan Kong, Guangzhi Hu* and Thomas Wågberg*

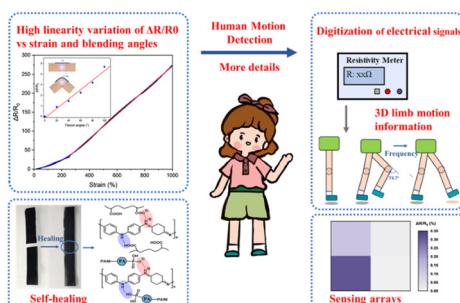
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Organic indoor PV: vanishing surface recombination allows for robust device architecture

Xueshi Jiang,* Bernhard Siegmund* and Koen Vandewal*

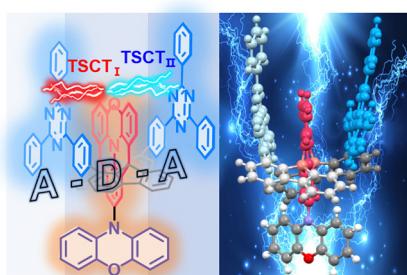
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A stretchable conductive elastomer sensor with self-healing and highly linear strain for human movement detection and pressure response

Yao Zhang, Yizhong Yuan,* Huimei Yu,* Chunhua Cai, Jinyu Sun and Xiaohui Tian

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Intramolecular exciplex featuring a bis-sp³ C-locked acceptor-donor-acceptor sandwich

Feng-Ming Xie, Han-Yang Wang, Hao-Ze Li, Kai Zhang, Yang Shen, Jianhua Zou, Yan-Qing Li* and Jian-Xin Tang*

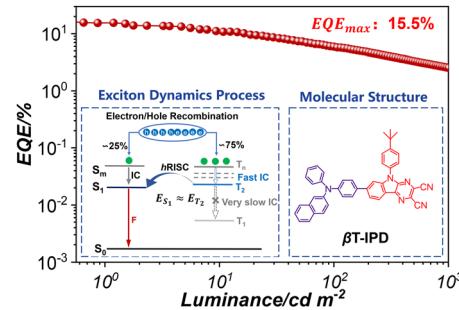


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Optimizing the energy level alignment for achieving record-breaking efficiency in hot exciton deep red OLEDs

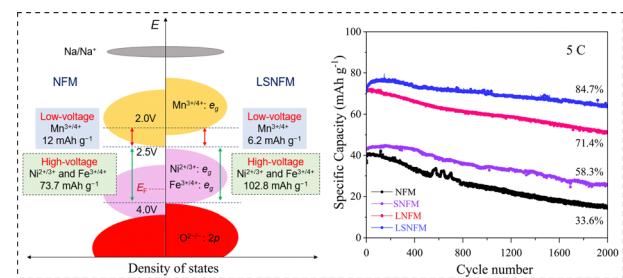
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New insights into pure zwitterionic hydrogels with high strength and high toughness

Haiyan Yin, Min You, Xinlei Shi, Hui Yu and Qiang Chen*

