

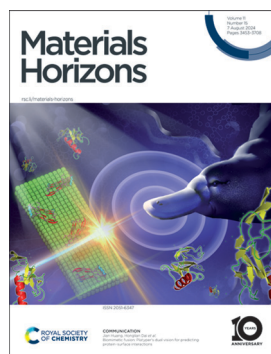
Materials Horizons

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See Jian Huang, Honglian Dai *et al.*, pp. 3528–3538. Image reproduced by permission of Honglian Dai from *Mater. Horiz.*, 2024, **11**, 3528.



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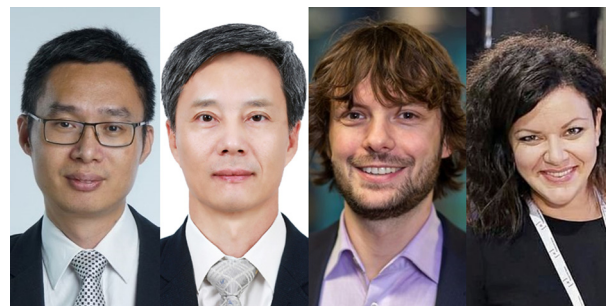
See Longjian Xue *et al.*, pp. 3539–3547. Image reproduced by permission of Longjian Xue from *Mater. Horiz.*, 2024, **11**, 3539.

EDITORIAL

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Introduction to memristors and neuromorphic systems

Xiaodong Chen, Cheol Seong Hwang, Yoeeri van de Burgt and Francesca Santoro

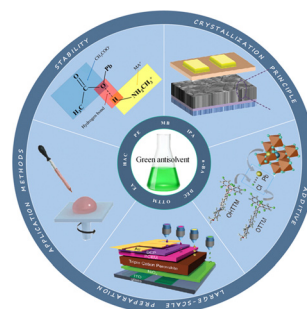


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Research progress of green antisolvent for perovskite solar cells

Yunsheng Gou, Shiyong Tang, Chunlong Yuan, Pan Zhao, Jingyu Chen* and Hua Yu*



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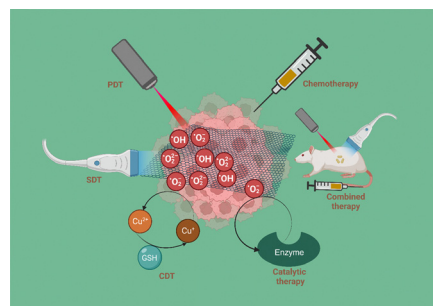
Fundamental questions
Elemental answers

REVIEWS

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Two-dimensional metal organic frameworks in cancer treatment

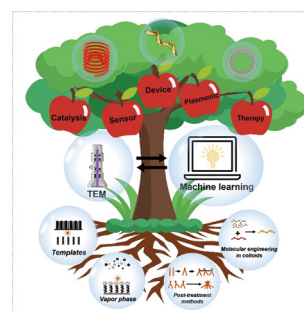
Chao Wang* and Shan Zhang*



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Unraveling nanosprings: morphology control and mechanical characterization

Dahai Yang, Rui Huang, Bolin Zou, Ruoxu Wang, Yong Wang, Edison Huixiang Ang* and Xiaohui Song*

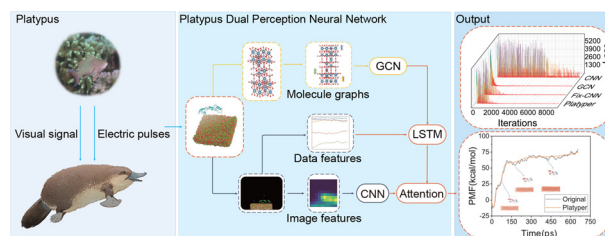


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Biomimetic fusion: Platypus's dual vision for predicting protein–surface interactions

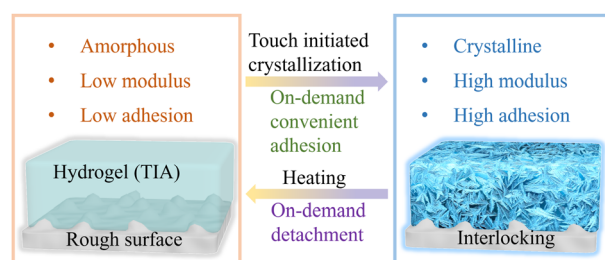
Chuhang Hong, Xiaopei Wu, Jian Huang* and Honglian Dai*



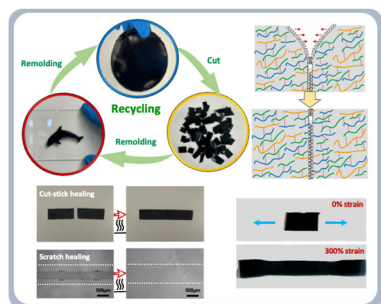
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Touch initiated on-demand adhesion on rough surfaces

Zhekun Shi, Di Tan, Kangjian Xiao, Xiaolong Zhang, Bo Zhu, Zhen Lin, Quan Liu, Daobing Chen, Qinghua Zhang and Longjian Xue*



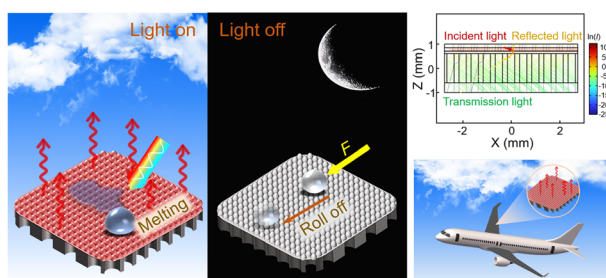
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Self-healing, stretchable and recyclable polyurethane-PEDOT:PSS conductive blends

Jinsil Kim, Jiaxin Fan, Gayaneh Petrossian, Xin Zhou, Pierre Kateb, Noemy Gagnon-Lafrenais and Fabio Cicoira*

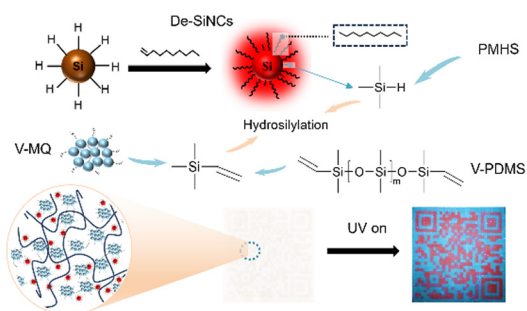
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Femtosecond laser composite manufactured double-bionic micro-nano structure for efficient photothermal anti-icing/deicing

Sensen Xuan, Huan Yin, Guoqiang Li,* Yi Yang, Yuan Wang, Jiasong Liu, Senyun Liu,* Xiaohong Li, Yuegan Song, Tingni Wu and Kai Yin*

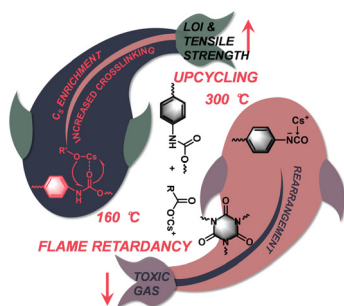
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Flexible transparent and hydrophobic SiNCs/PDMS coatings for anti-counterfeiting applications

Jinfeng Zhang, Yuanfen Huang, Xiaoyuan Zhang, Xin Guo, Kailong Chen, Xiang Feng, Jiajia Kong, Yanqing Liu, Bin Shang, Weilin Xu and Dongzhi Chen*

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Self-evolutionary recycling of flame-retardant polyurethane foam enabled by controllable catalytic cleavage

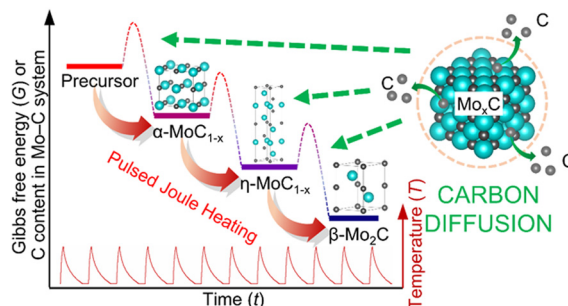
Dan-Xuan Fang, Ming-Jun Chen, Fu-Rong Zeng, Shuai-Qi Guo, Lei He, Bo-Wen Liu, Sheng-Chao Huang, Hai-Bo Zhao* and Yu-Zhong Wang*



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Rapid synthesis of high-purity molybdenum carbide with controlled crystal phases

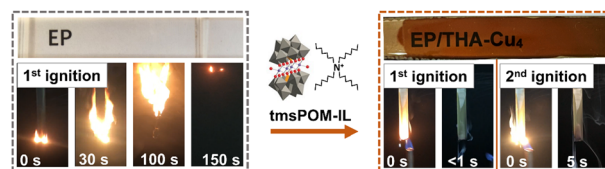
Renjie Fang, Haoxian He, Zhiyi Wang, Ye-Chuang Han* and Feng Ru Fan*



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Transition metal-substituted polyoxometalate-ionic liquids with remarkable flame retardancy performance

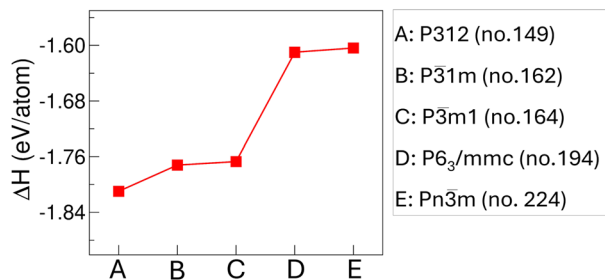
Ying Zeng, Yeqin Feng, Junhao Zhang, Carsten Streb,* Zhimin Wang, Hongjin Lv* and Guo-Yu Yang



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Signature of low-dimensional quasi-F centers in zirconium-rich electrifieds

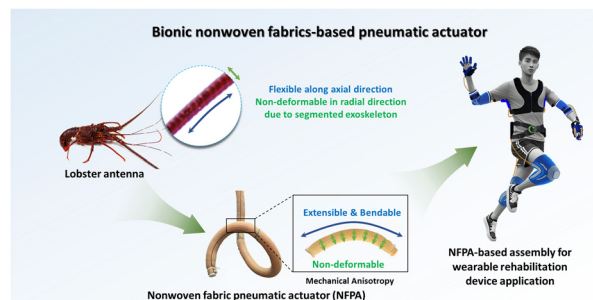
Dinesh Thapa,* Shambhu Bhandari Sharma, Dario Alfè, Dmitri Kilin and Svetlana Kilina



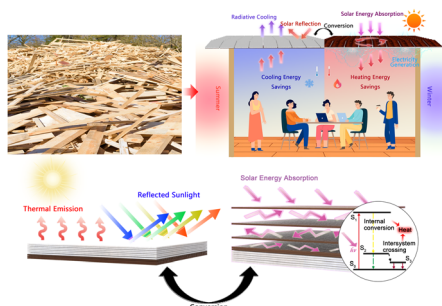
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Pre-programmable pneumatic actuator: leveraging mechanical anisotropy of nonwoven fabrics with an integrated tensile sensor

Sheng Qiu, Hongwei Zhang, Jiazhe Cheng, Shuo Shi, Yintung Lam, Wenfang Li, Haoyun Li, Hongbo Wang,* Fengxin Sun* and Hao Jia*



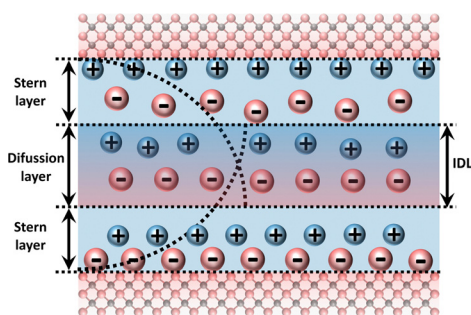
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Wood waste-derived dual-mode materials paving the way for year-round energy saving in buildings

Jiayi Zhang, Kairen Yin, Zirui Zhuang, Jinghan Zhou, Yixi Tang, Jingyong Xu, Yipeng Chen,* Yingying Li* and Qingfeng Sun*

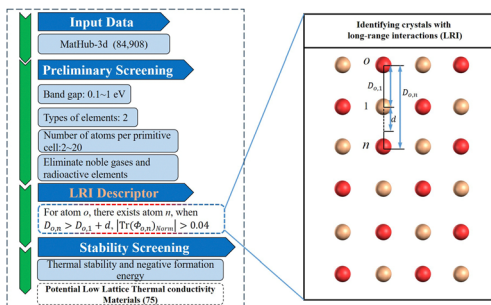
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A mechanically robust spiral fiber with ionic–electronic coupling for multimodal energy harvesting

Shengyang Zhou,* Yilin Zhang, Xuan Li, Chao Xu, Joseph Halim, Shuai Cao, Johanna Rosen and Maria Strömme

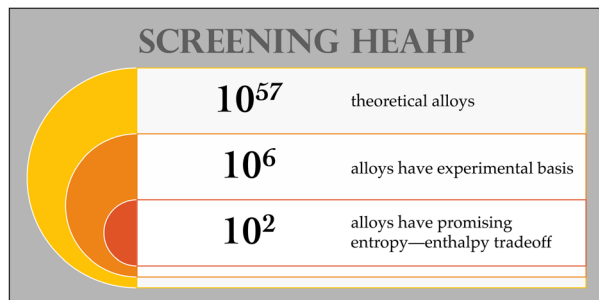
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High throughput screening of semiconductors with low lattice thermal transport induced by long-range interactions

Yu Wu,* Linxuan Ji, Yimin Ding and Liujiang Zhou*

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High-entropy alloy screening for halide perovskites

Christopher P. Muzzillo,* Cristian V. Ciobanu and David T. Moore



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High green index electromagnetic interference shields with semiconducting Bi_2S_3 fillers in a PEDOT:PSS matrix

Sanjoy Sur Roy, Koushik Ghosh, M. Meyyappan and P. K. Giri*

