

Materials Horizons

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See Peihong Wang, Li Zheng, Zhong Lin Wang *et al.*, pp. 1414–1425.
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Materials Horizons Emerging Investigator Series:
Associate Professor Dr Xuhui Zhang, Jiangnan University, China



REVIEWS

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Bismuth-based liquid metals: advances, applications, and prospects

Xilong Zhang, Jing Liu* and Zhongshan Deng*



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Fundamental questions
Elemental answers

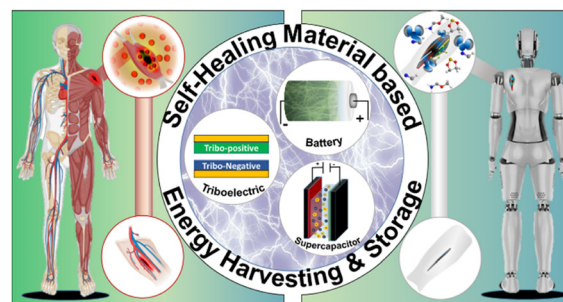


REVIEWS

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Recent progress in self-healable energy harvesting and storage devices – a future direction for reliable and safe electronics

Jayashree Chandrasekar, Manikandan Venkatesan, Ting-Wang Sun, Yung-Chi Hsu, Yu-Hang Huang, Wei-Wen Chen, Mei-Hsin Chen, Meng-Lin Tsai, Jung-Yao Chen, Ja-Hon Lin,* Ye Zhou* and Chi-Ching Kuo*

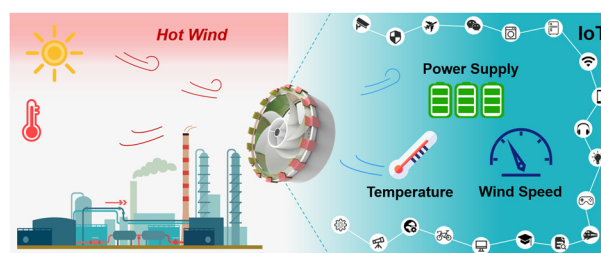


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Polynary energy harvesting and multi-parameter sensing in the heatwave environment of industrial factory buildings by an integrated triboelectric–thermoelectric hybrid generator

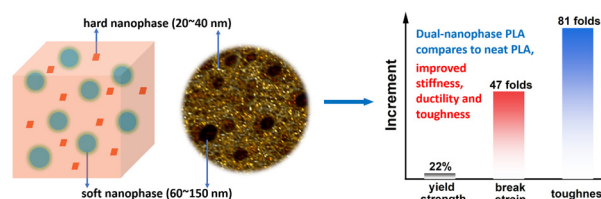
Lin Fang, Chen Chen, Haonan Zhang, Xinbo Tu, Zixun Wang, Wen He, Shengnan Shen, Mingzai Wu, Peihong Wang,* Li Zheng* and Zhong Lin Wang*



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Soft–hard dual nanophases: a facile strategy for polymer strengthening and toughening

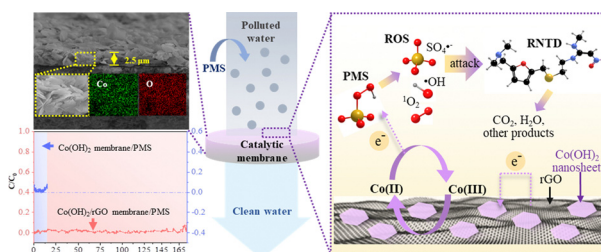
Guangyao Ji, Mingyu Sang, Xuhui Zhang,* Jing Huang, Ting Li, Yang Wang, Shibo Wang and Weifu Dong*

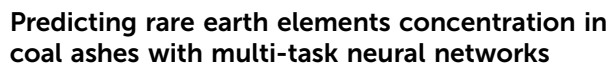


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A two dimensional Co(OH)₂ catalytic gravity-driven membrane for water purification: a green and facile fabrication strategy and excellent water decontamination performance

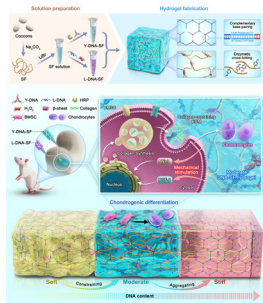
Xiaoyu Zhao, Mei Long, Zhixing Li and Zhenghua Zhang*





Yu Song,* Yifan Zhao, Alex Ginella, Benjamin Gallagher,
Gaurav Sant and Mathieu Bauchy*

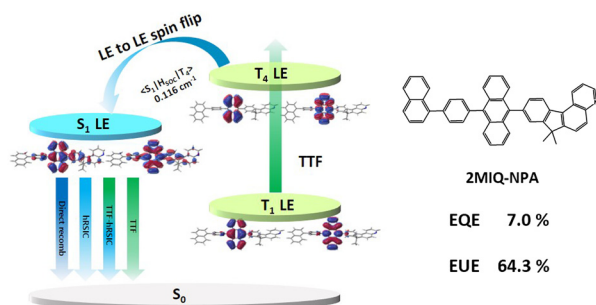
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Dual-network DNA–silk fibroin hydrogels with controllable surface rigidity for regulating chondrogenic differentiation

Ziyang Zhou, Peiran Song, Yan Wu, Miaomiao Wang,
Congyi Shen, Zhixin Ma, Xiaoxiang Ren, Xiuhui Wang,
Xiao Chen, Yan Hu, Zuhao Li, Qin Zhang,*
Mengmeng Li,* Zhen Geng* and Jiacan Su*

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Anthracene derivatives with strong spin–orbit coupling and efficient high-lying reverse intersystem crossing beyond the El-Sayed rule

Ki Ju Kim, Jaesung Kim, Jong Tae Lim, Jinyeong Heo,
Bum Jun Park, Hyewon Nam, Hyeonwoo Choi,
Seung Soo Yoon, Woojae Kim,* Sunwoo Kang* and
Taekyung Kim*

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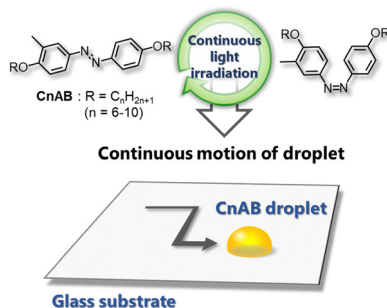


Photo-controllable azobenzene microdroplets on an open surface and their application as transporters

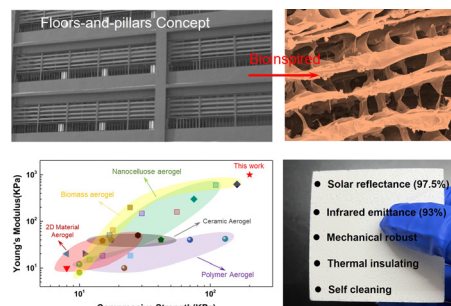
Yasuo Norikane,* Mio Ohnuma, Dennis Kwaria,
Yoshihiro Kikkawa, Takuya Ohzono, Toshiko Mizokuro,
Koji Abe, Kengo Manabe and Koichiro Saito

COMMUNICATIONS

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Eliminating trade-offs between optical scattering and mechanical durability in aerogels as outdoor passive cooling metamaterials

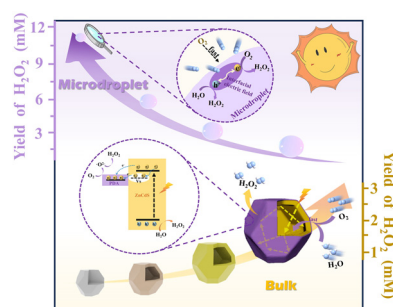
Chenyang Cai,* Yi Chen, Chunxiang Ding, Zechang Wei and Xuan Wang*



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Microdroplet assisted hollow ZnCdS@PDA nanocages' synergistic confinement effect for promoting photocatalytic H_2O_2 production

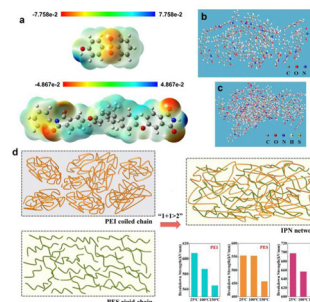
Chenxi Feng and Lei Zhang*



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Achieving synergistic improvement in dielectric and energy storage properties at high-temperature of all-organic composites via physical electrostatic effect

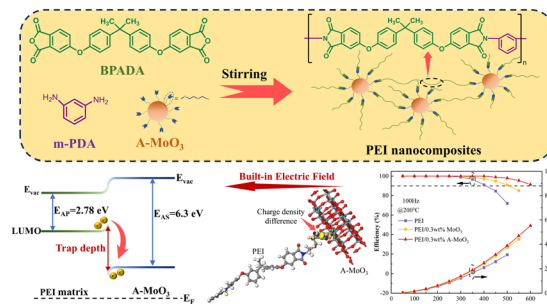
Yanan Shang, Yu Feng,* Zhaotong Meng, Changhai Zhang, Tiandong Zhang and Qingguo Chi*



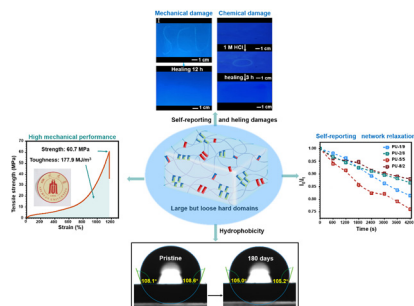
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Improved capacitive energy storage performance in hybrid films with ultralow aminated molybdenum trioxide integration for high-temperature applications

Tan Zeng, Qiao Li, Dongduan Liu, Jing Fu, Lipeng Zhong, Jinliang He, Qi Li and Chao Yuan*



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Mechanically robust, self-reporting and healable polyurethane elastomers by incorporating symmetric/asymmetric chain extenders

Haitao Wu, Hao Wang, Mi Luo, Zhaoyang Yuan, Yiwen Chen, Biqiang Jin, Wenqiang Wu, Bangjiao Ye, Hongjun Zhang and Jinrong Wu*

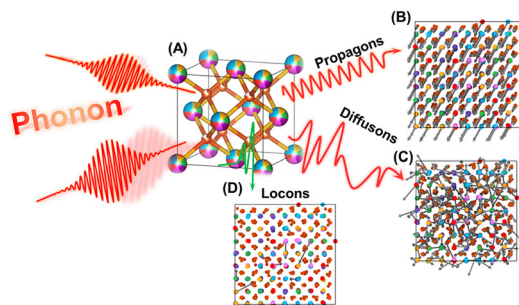
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Flexible, transparent, and sustainable cellulose-based films for organic solar cell substrates

Lewen Huang, Yibao Li, Zhong Zheng, Yun Bai, Thomas P. Russell* and Changfei He*

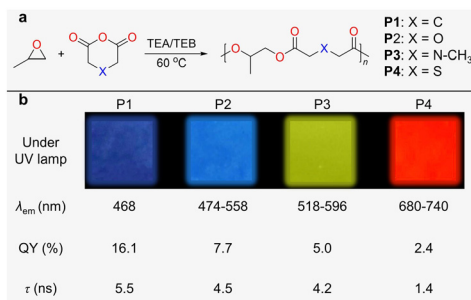
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Glass-like thermal conductivity and phonon transport mechanism in disordered crystals

Guoliang Ren, Junwei Che, Hanchao Zhang, Yali Yu, Wei Hao, Yinchun Shi, Fan Yang* and Xiaofeng Zhao*

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Heteroatom-facilitated blue to near-infrared emission of nonconjugated polyesters

Xiong Liu, Bo Chu, Zuping Xiong, Bin Liu, Weihao Tu, Ziteng Zhang, Haoke Zhang,* Jing Zhi Sun,* Xinghong Zhang* and Ben Zhong Tang*



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Ultra-strong, nonfreezing, and flexible strain sensors enabled by biomass-based hydrogels through triple dynamic bond design

Haocheng Fu, Bin Wang,* Jinpeng Li, Daxian Cao, Wei Zhang,* Jun Xu, Jun Li, Jinsong Zeng, Wenhua Gao and Kefu Chen

