

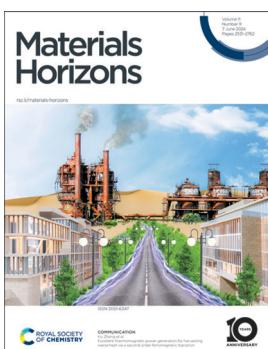
Materials Horizons

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ISSN 2051-6347 CODEN MHAOL 11(11) 2531–2762 (2024)



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EDITORIAL

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Materials Horizons Emerging Investigator Series:
Professor Jingjing Duan, Nanjing University of
Science and Technology, China

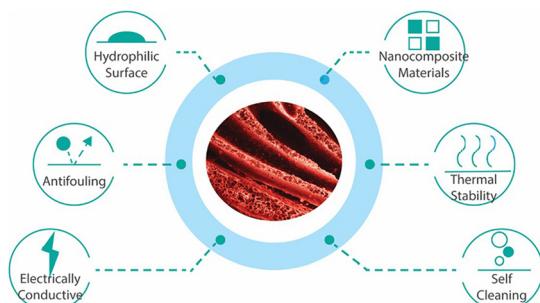


COMMENTARY

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A reflection on 'Highly dispersible polypyrrole nanospheres for advanced nanocomposite ultrafiltration membranes'

Cheng-Wei Lin and Richard B. Kaner*



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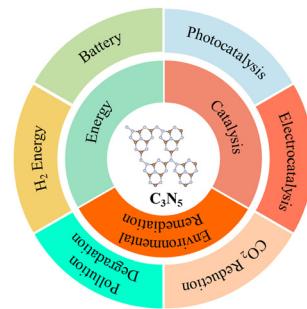


REVIEWS

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C₃N₅-based nanomaterials and their applications in heterogeneous catalysts, energy harvesting, and environmental remediation

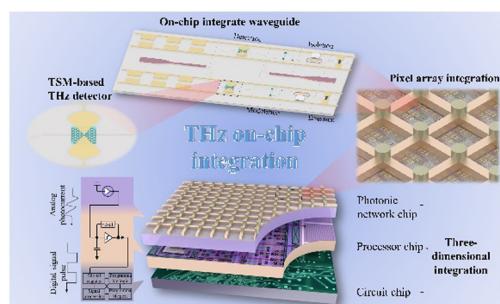
Linfeng Xiao, Sanshuang Gao, Runhua Liao,* Yingtang Zhou,* Qingquan Kong and Guangzhi Hu*



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Two-dimensional topological semimetals: an emerging candidate for terahertz detectors and on-chip integration

Yun Li, Wenzhi Yu, Kai Zhang, Nan Cui, Tinghe Yun, Xue Xia, Yan Jiang, Guangyu Zhang, Haoran Mu* and Shenghuang Lin*

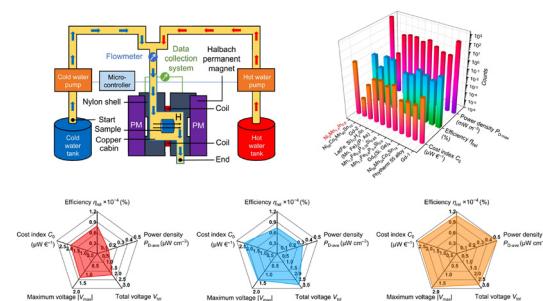


COMMUNICATIONS

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Excellent thermomagnetic power generation for harvesting waste heat via a second-order ferromagnetic transition

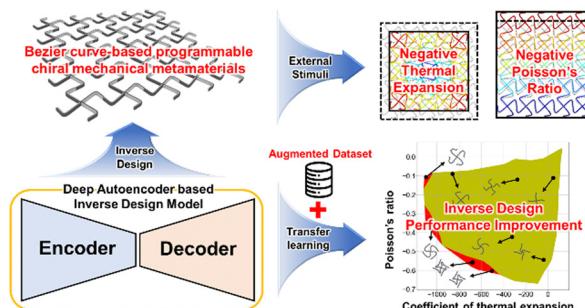
Haodong Chen, Xianliang Liu, Yao Liu, Longlong Xie, Ziyuan Yu, Kaiming Qiao, Mingze Liu, Fengxia Hu, Baogen Shen, R. V. Ramanujan, Ke Chu and Hu Zhang*



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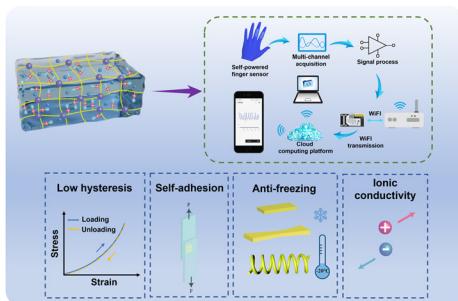
Inverse design of Bézier curve-based mechanical metamaterials with programmable negative thermal expansion and negative Poisson's ratio via a data augmented deep autoencoder

Min Woo Cho, Keon Ko, Majid Mohammadhosseinzadeh, Ji Hoon Kim, Dong Yong Park, Da Seul Shin* and Sang Min Park*



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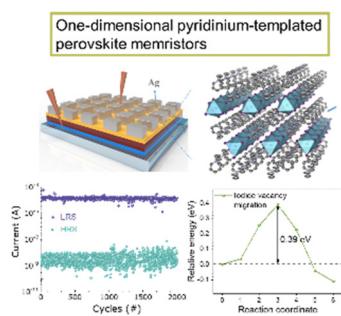
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Low hysteresis zwitterionic supramolecular polymer ion-conductive elastomers with anti-freezing properties, high stretchability, and self-adhesion for flexible electronic devices

Hongying Wang, Baocheng Liu, Danyang Chen, Zhuoya Wang, Haolun Wang, Siyu Bao, Ping Zhang,* Jianhai Yang* and Wenguang Liu

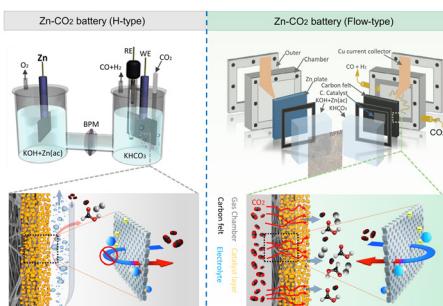
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High-performance one-dimensional halide perovskite crossbar memristors and synapses for neuromorphic computing

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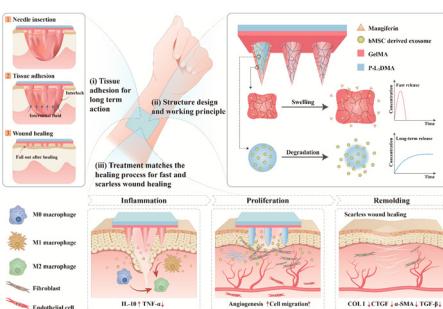
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Unlock flow-type reversible aqueous Zn–CO₂ batteries

Muhammad Kashif Aslam, Herui Wang, Zhihao Nie, Sheng Chen, Qiang Li* and Jingjing Duan*

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A differential-targeting core–shell microneedle patch with coordinated and prolonged release of mangiferin and MSC-derived exosomes for scarless skin regeneration

Shang Lyu, Qi Liu, Ho-Yin Yuen, Huizhi Xie, Yuhe Yang, Kelvin Wai-Kwok Yeung, Chak-yin Tang, Shuqi Wang, Yaxiong Liu, Bin Li,* Yong He* and Xin Zhao*

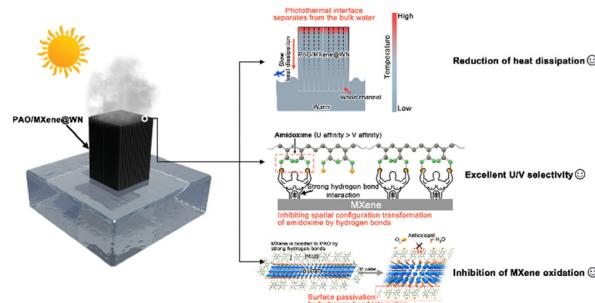


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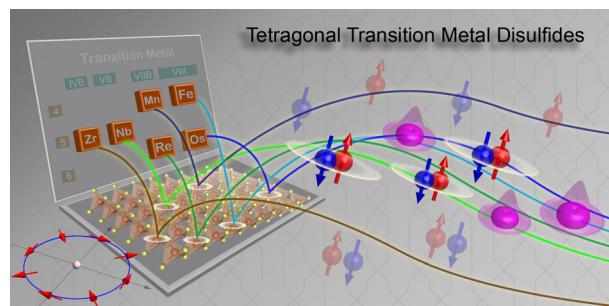
Hao Ye, Ming-Bang Wu,* Qi-Hui Ye, Rou-Ming Wen, Zhang-Ting Hu, Juming Yao* and Chao Zhang*



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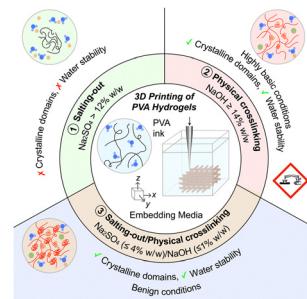
Jiale Liu, Huidong Wang, Xiaojun Shi and Xiaoming Zhang*



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3D printing of polyvinyl alcohol hydrogels enabled by aqueous two-phase system

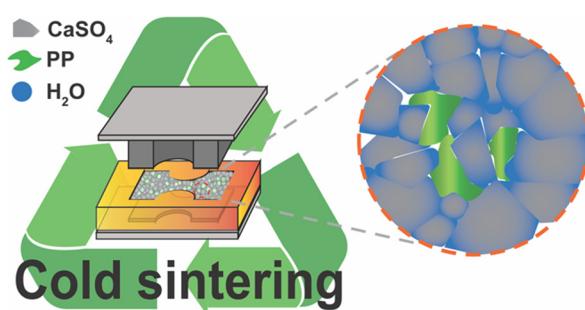
Rahul Karyappa, Nidhi Nagaraju, Kento Yamagishi, Xue Qi Koh, Qiang Zhu and Michinao Hashimoto*



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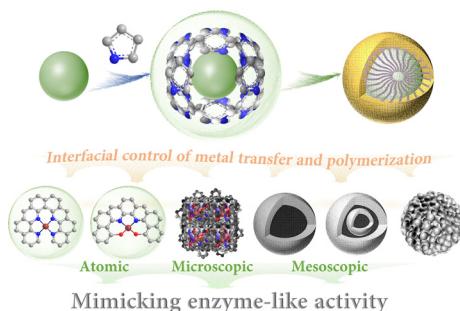
Upcycling plastic waste into fully recyclable composites through cold sintering

Po-Hao Lai, Shelby L. Hall, Yi-Chen Lan, Jia-Ruey Ai, Arian Jaber, Amir Sheikhi, Rui Shi, Bryan D. Vogt* and Enrique D. Gomez*



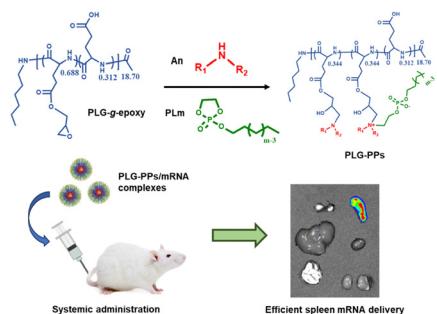
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**Linking atomic to mesoscopic scales in multilevel structural tailoring of single-atom catalysts for peroxide activation**

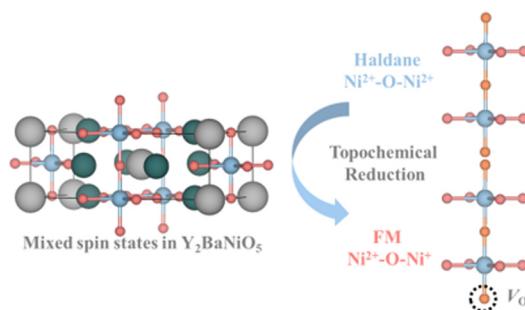
Li Yu,* Shaosong Xin, Yuchan Li and Hsien-Yi Hsu

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**A polyamino acid-based phosphatidyl polymer library for *in vivo* mRNA delivery with spleen targeting ability**

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**Spin-degree manipulation for one-dimensional room-temperature ferromagnetism in a haldane system**

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CORRECTION

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Correction: A differential-targeting core–shell microneedle patch with coordinated and prolonged release of mangiferin and MSC-derived exosomes for scarless skin regeneration

Shang Lyu, Qi Liu, Ho-Yin Yuen, Huizhi Xie, Yuhe Yang, Kelvin Wai-Kwok Yeung, Chak-yin Tang, Shuqi Wang, Yaxiong Liu, Bin Li,* Yong He* and Xin Zhao*

