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Materials Horizons

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IN THIS ISSUE

ISSN 2051–6347 CODEN MHAOAL 10(5) 1457–1886 (2023)

Cover
See Qionghua Zhou, Wan-Jian Yin, Weiqiao Deng, Jinlan Wang *et al.*, pp. 1651–1660. Image reproduced by permission of Jinlan Wang from *Mater. Horiz.*, 2023, **10**, 1651. The robot in the image was created by DALL-E from Open AI.

Inside cover
See Quanchao Zhuang, Hamidreza Arandiyan, Yanguo Liu *et al.*, pp. 1479–1538. Image reproduced by permission of Hamid Arandiyan from *Mater. Horiz.*, 2023, **10**, 1479.

EDITORIAL

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Outstanding Paper Award

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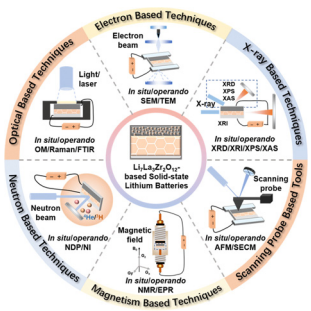

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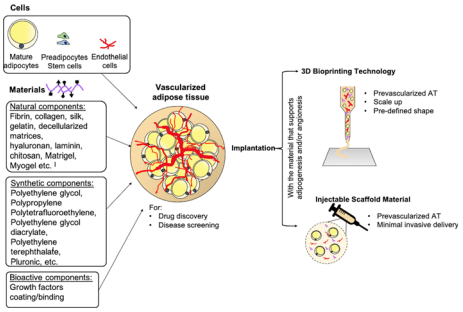

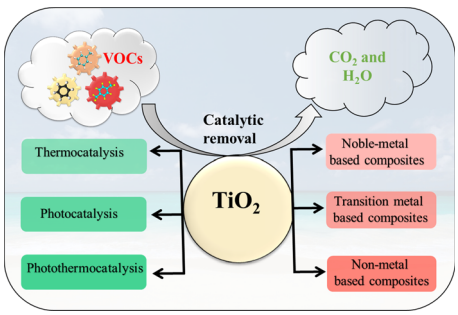

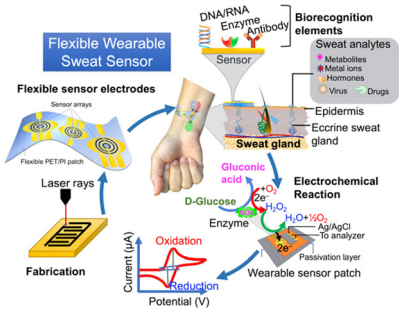

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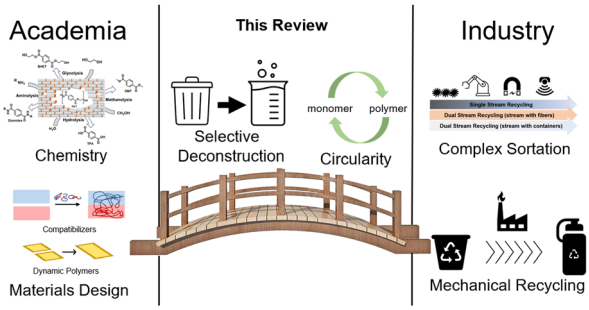

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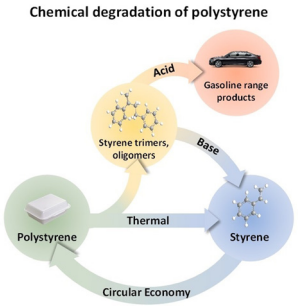

Catalytic routes towards polystyrene recycling

Carlos Marquez,* Cristina Martin, Noemi Linares and Dirk De Vos*

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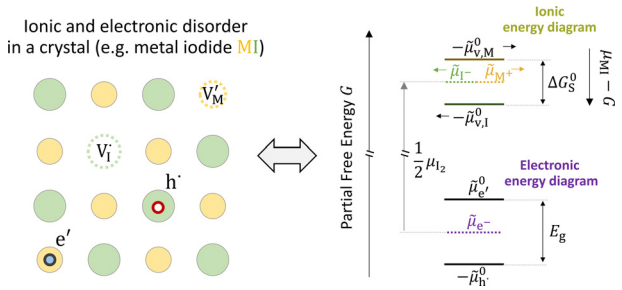

Ionic and electronic energy diagrams for hybrid perovskite solar cells

Davide Moia* and Joachim Maier

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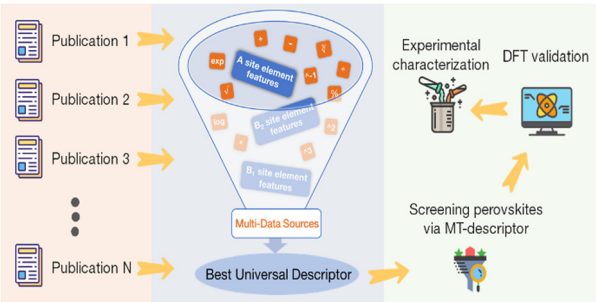
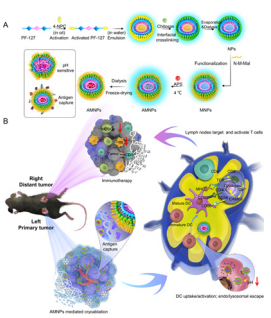


Distilling universal activity descriptors for perovskite catalysts from multiple data sources *via* multi-task symbolic regression

Zhilong Song, Xiao Wang, Fangting Liu, Qionghua Zhou,* Wan-Jian Yin,* Hao Wu, Weiqiao Deng* and Jinlan Wang*



Autologous-cancer-cryoablation-mediated nanovaccine augments systematic immunotherapy

Zhongyang Yu, Dawei Wang, Yuxia Qi, Jing Liu, Tian Zhou,* Wei Rao* and Kaiwen Hu*

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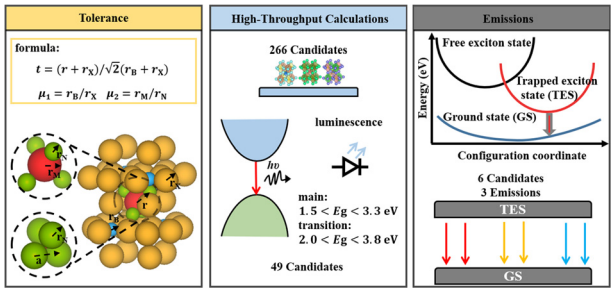
1678

Eco-friendly inorganic molecular novel antiperovskites for light-emitting application

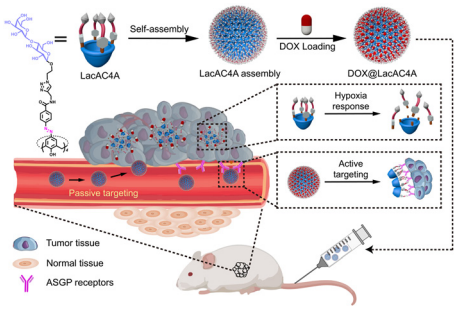
Jiawei Luo, Qun Ji, Yilei Wu, Xinying Gao, Jinlan Wang and Ming-Gang Ju*



1689

Triple targeting host–guest drug delivery system based on lactose-modified azocalix[4]arene for tumor ablation

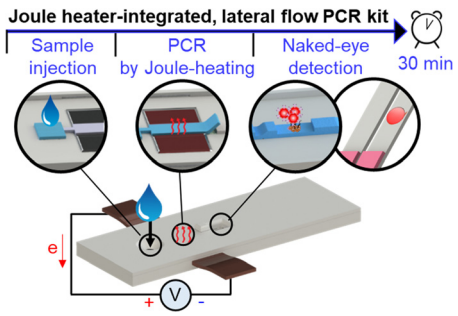
Juan-Juan Li, Rui-Xue Rong, Yan Yang, Zong-Ying Hu, Bing Hu, Ying-Ying Zhao, Hua-Bin Li, Xin-Yue Hu,* Ke-Rang Wang* and Dong-Sheng Guo*



1697

Rapid PCR kit: lateral flow paper strip with Joule heater for SARS-CoV-2 detection

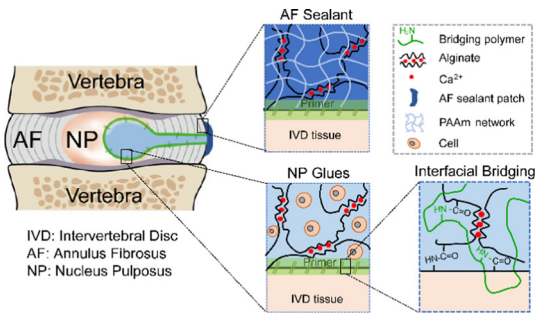
Kihyeun Kim, Bobin Lee, Jun Hyeok Park, Ji-Ho Park, Ki Joong Lee, Tae Joon Kwak, Taehwang Son, Yong-Beom Shin, Hyungsoon Im and Min-Gon Kim*



1705

Tissue-mimetic hybrid bioadhesives for intervertebral disc repair

Xuan Li, Yin Liu, Li Li, Ran Huo, Farshid Ghezelbash, Zhenwei Ma, Guangyu Bao, Shiyu Liu, Zhen Yang, Michael H. Weber, Nicole Y. K. Li-Jessen, Lisbet Haglund* and Jianyu Li*



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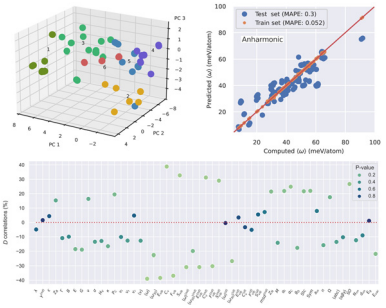

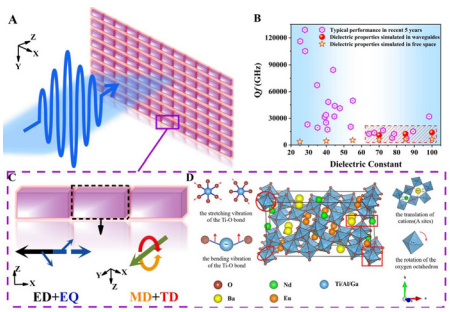

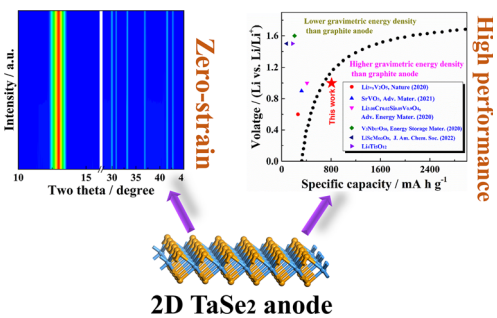

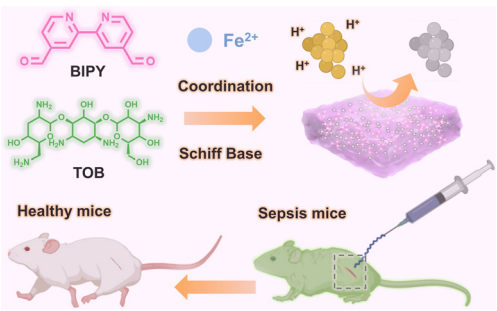

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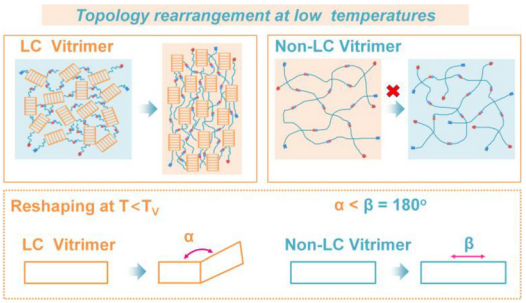
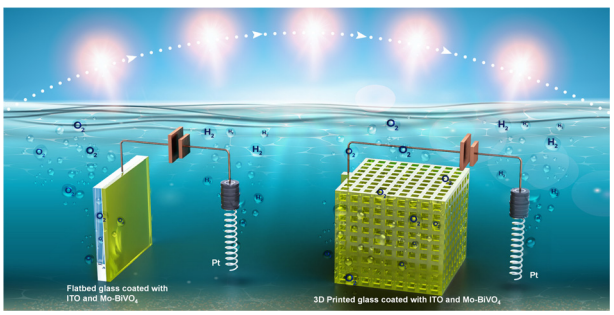


Fabricating liquid crystal vitrimer actuators far below the normal processing temperature

Yanjin Yao, Enjian He, Hongtu Xu, Yawen Liu, Yen Wei and Yan Ji*

1806



Angle-independent solar radiation capture by 3D printed lattice structures for efficient photoelectrochemical water splitting

Chidanand Hegde, Tamar Rosental, Joel Ming Rui Tan, Shlomo Magdassi* and Lydia Helena Wong*

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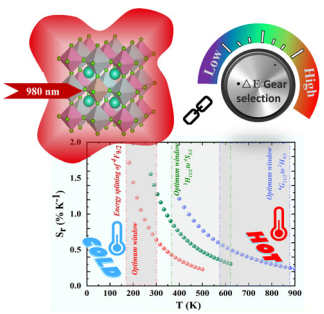
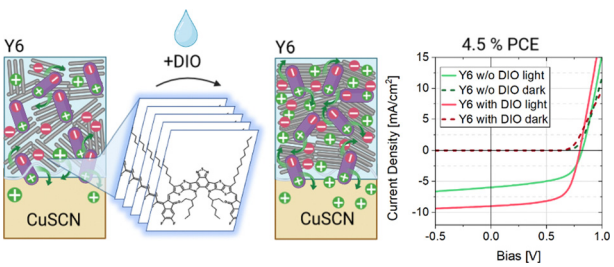


Targeted high-precision up-converting thermometer platform over multiple temperature zones with Er^{3+}

Zhihui Rao, Zhilin Li, Xiujian Zhao and Xiao Gong*

1825



What is special about Y6; the working mechanism of neat Y6 organic solar cells

Elifnaz Sağlamkaya, Artem Musiienko, Mohammad Saeed Shadabroo, Bowen Sun, Sreelakshmi Chandrabose, Oleksandra Shargaieva, Giulia Lo Gerfo M., Niek F. van Hulst and Safa Shoaee*

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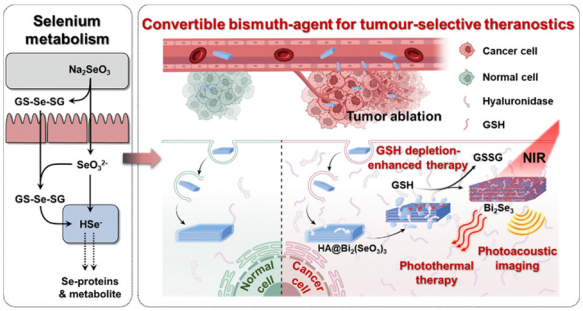

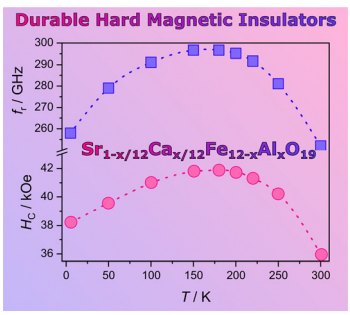

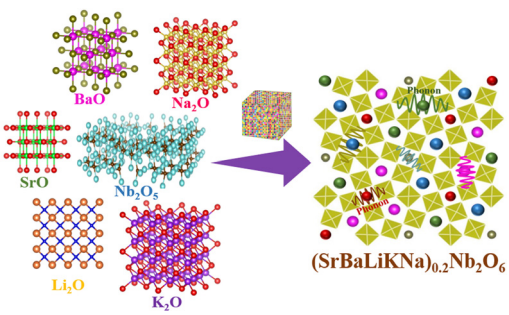

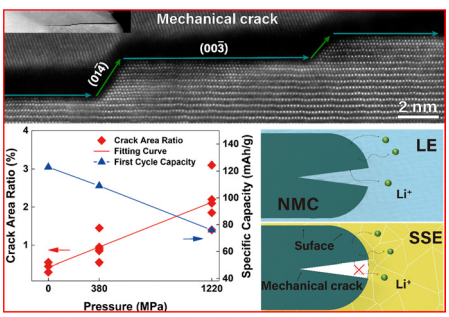

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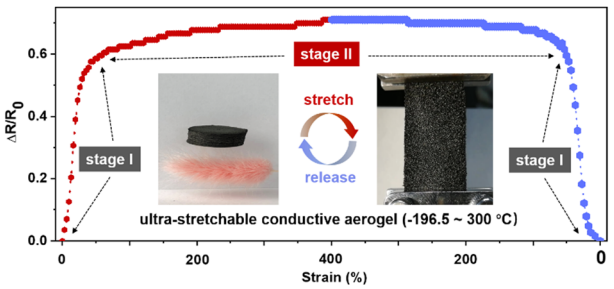
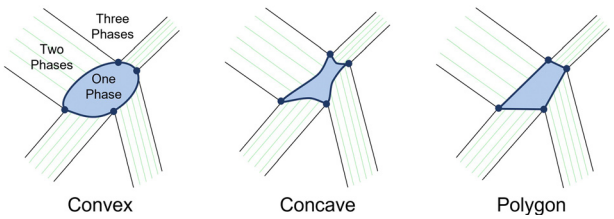


Ultra-stretchable graphene aerogels at ultralow temperatures

Guohui Yang, Xiaofang Zhang, Ruijia Wang, Xu Liu, Jianming Zhang, Lu Zong* and Hongsheng Yang*



Shapes of phases in isothermal phase diagrams: what is wrong with the Thermo-Calc logo

Adetoye H. Adekoya, Shashwat Anand and G. Jeffrey Snyder*

CORRECTION

Correction: Tuning the arrangement of lamellar nanostructures: achieving the dual function of physically killing bacteria and promoting osteogenesis

Shi Mo, Kaiwei Tang, Qing Liao, Lingxia Xie, Yuzheng Wu, Guomin Wang, Qingdong Ruan, Ang Gao, Yuanliang Lv, Kaiyong Cai, Liping Tong,* Zhengwei Wu,* Paul K Chu and Huaiyu Wang*

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