

# Materials Horizons

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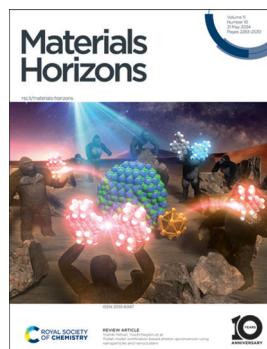
## IN THIS ISSUE

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### Cover

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Emily E. Moore  
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### Inside cover

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## EDITORIALS

2292

**Materials Horizons Emerging Investigator Series:**  
Professor Yiyang Li, University of Michigan, USA



2294

**Materials Horizons 2023 Outstanding Paper awards**



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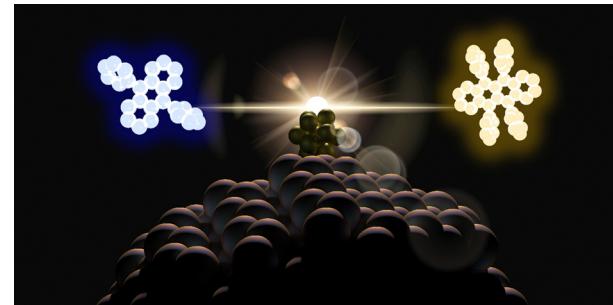
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2304

## Triplet-triplet annihilation-based photon upconversion using nanoparticles and nanoclusters

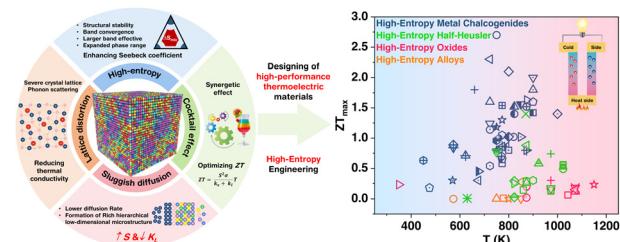
Yoshiki Niihori,\* Taiga Kosaka and Yuichi Negishi\*



2323

## High-entropy materials for thermoelectric applications: towards performance and reliability

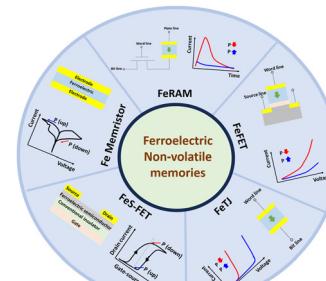
Nouredine Ouledna,\* Noha Sabi, Hasna Aziam,  
Vera Trabadelo and Hicham Ben Youcef\*



2355

# Growth of emergent simple pseudo-binary ferroelectrics and their potential in neuromorphic computing devices

Ampattu R. Jayakrishnan, Ji S. Kim, Markus Hellenbrand, Luís S. Marques, Judith L. MacManus-Driscoll\* and José P. B. Silva\*

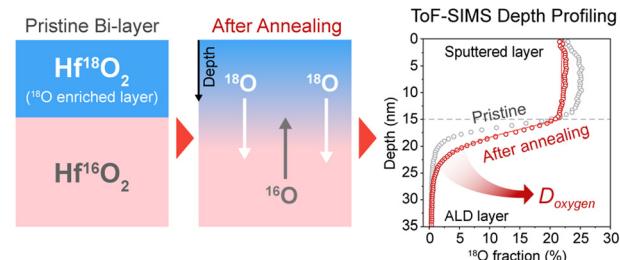


## COMMUNICATIONS

2372

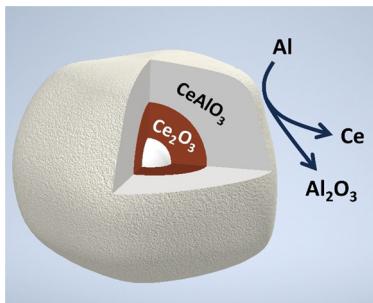
## Oxygen tracer diffusion in amorphous hafnia films for resistive memory

Dongjae Shin, Anton V. levlev, Karsten Beckmann, Jingxian Li, Pengyu Ren, Nathaniel Cady and Yiyang Li\*



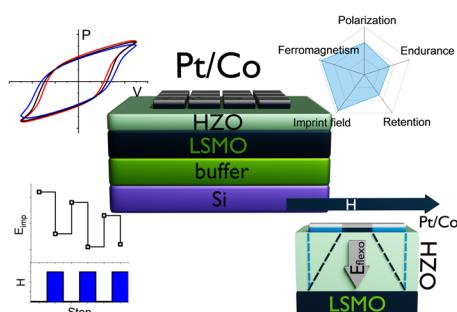
## COMMUNICATIONS

2382


**Aluminothermic reduction of  $\text{CeO}_2$ : mechanism of an economical route to aluminum–cerium alloys**

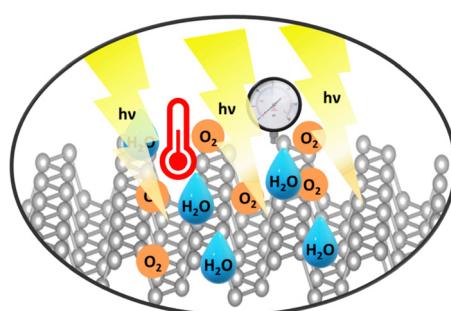
Alfred Amon,\* Emily E. Moore,\* Hunter B. Henderson, Jibril Shittu, Martin Kunz, Shane Kastamo, Nikolai Huotari, Adam Loukus, Ryan Ott, David Weiss and Scott K. McCall

2388


**Robust multiferroicity and magnetic modulation of the ferroelectric imprint field in heterostructures comprising epitaxial  $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$  and Co**

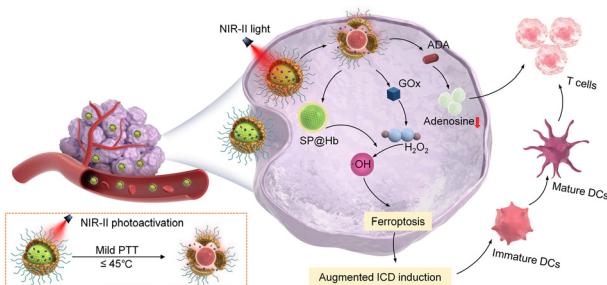
Tetiana Zakusylo, Alberto Quintana, Veniero Lenzi, José P. B. Silva, Luís Marques, José Luís Ortolá Yano, Jike Lyu, Jordi Sort, Florencio Sánchez\* and Ignasi Fina\*

2397


**Memory effect and coexistence of negative and positive photoconductivity in black phosphorus field effect transistor for neuromorphic vision sensors**

Arun Kumar,\* Kimberly Intonti, Loredana Viscardi, Ofelia Durante, Aniello Petella, Osamah Kharsah, Stephan Sleziona, Filippo Giubileo, Nadia Martuccielo, Paolo Ciambelli, Marika Schleberger and Antonio Di Bartolomeo\*

2406


**Dual-enzyme decorated semiconducting polymer nanoagents for second near-infrared photoactivatable ferroptosis-immunotherapy**

Yue Liu, Renjie Lu, Meng Li, Danling Cheng, Fengshuo Wang, Xumei Ouyang, Yitian Zhang, Qin Zhang,\* Jingchao Li\* and Shaojun Peng\*

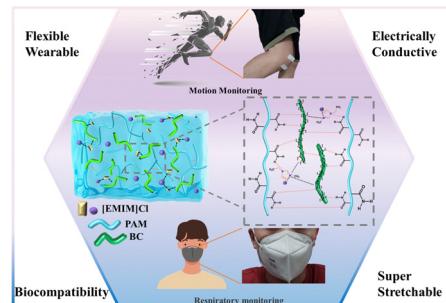


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2420

**Hyper strength, high sensitivity integrated wearable signal sensor based on non-covalent interaction of an ionic liquid and bacterial cellulose for human behavior monitoring**

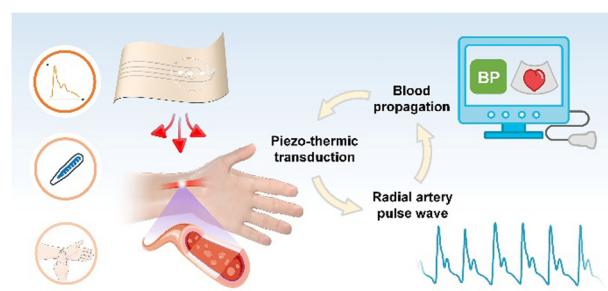
Xuhui Rong, Qijun Ding,\* Luzheng Chen, Shuo Yang, Jiang Lou, Zhuqing Liu, Xia Li, Yifei Jiang, Xiaolei Wang and Wenjia Han\*



2428

**A flexible multimodal pulse sensor for wearable continuous blood pressure monitoring**

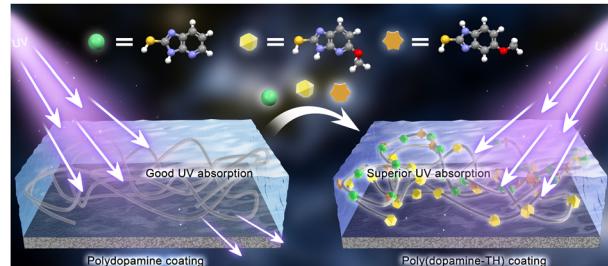
Shuo Tian, Liangqi Wang and Rong Zhu\*



2438

**UV absorption enhanced polydopamine coating**

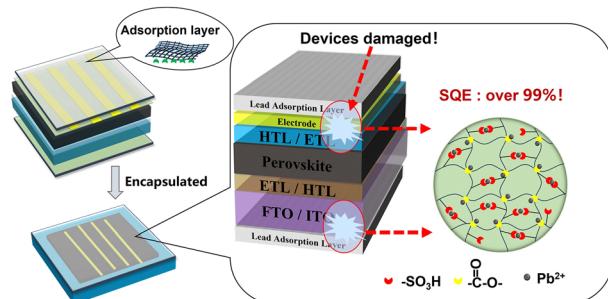
Zhen Yang, Huijie Liu, Junyi Zhao, Chao Wang, Haotian Li, Xianheng Wang, Ye Yang, Haoxing Wu,\* Zhipeng Gu\* and Yiwen Li\*



2449

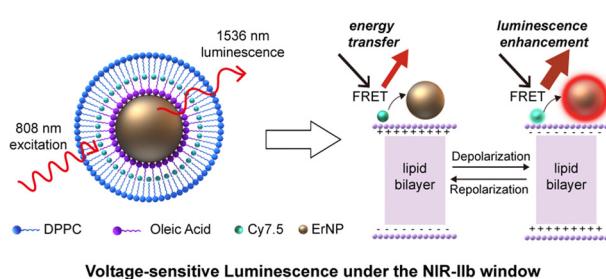
**Preventing lead leakage in perovskite solar cells and modules with a low-cost and stable chemisorption coating**

Zongxu Zhang, Yating Shi, Jiujiang Chen, Peng Shen, Hongshi Li, Mengjin Yang, Shirong Wang, Xianggao Li and Fei Zhang\*



## COMMUNICATIONS

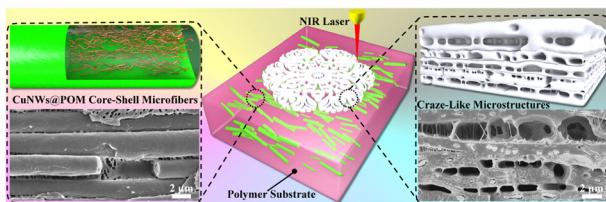
2457



**An NIR-IIb emissive transmembrane voltage nano-indicator for the optical monitoring of electrophysiological activities *in vivo***

Zhenyu Xing, Qian Hu, Weikan Wang, Na Kong, Rong Gao, Xiaolei Shen, Sixin Xu, Lingkai Meng, Jian-Ren Liu and Xingjun Zhu\*

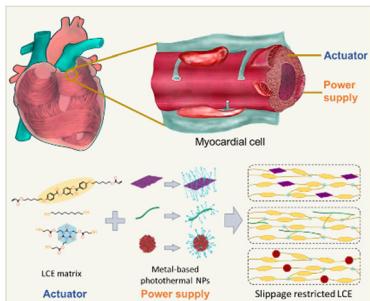
2469



**Laser-induced locally controllable craze-like microstructures for polymer white structural coloration**

Jin Feng, Rui Xu, Jiameng Huang and Tao Zhou\*

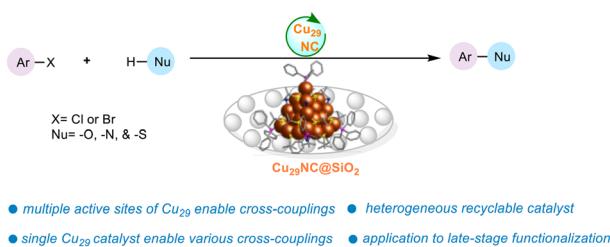
2483



**4D Printable liquid crystal elastomers with restricted nanointerfacial slippage for long-term-cyclic-stability photothermal actuation**

Juzhong Zhang, Shuireni Liu,\* Xianghong Wang, Xiaomeng Zhang, Xiaoguang Hu, Linlin Zhang, Qingqing Sun and Xuying Liu\*

2494



**Multiple neighboring active sites of an atomically precise copper nanocluster catalyst for efficient bond-forming reactions**

Atanu Ghosh, Arunachalam Sagadevan, Kathiravan Murugesan, Stefan Adrian F. Nastase, Bholanath Maity, Mohammad Bodiuzzaman, Aleksander Shkurenko, Mohamed Nejib Hedhili, Jun Yin, Omar F. Mohammed, Mohamed Eddaoudi, Luigi Cavallo, Magnus Rueping\* and Osman M. Bakr\*

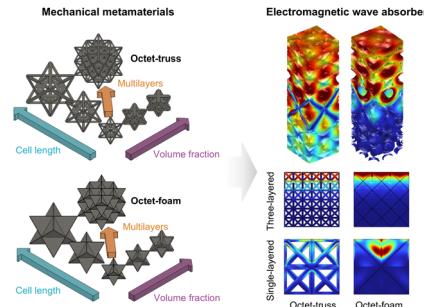


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2506

**Mechanical metamaterials as broadband electromagnetic wave absorbers: investigating relationships between geometrical parameters and electromagnetic response**

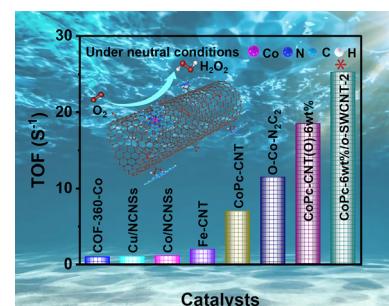
Dahyun Daniel Lim, Sangryun Lee, Jeong-Ho Lee, Wonjoon Choi\* and Grace X. Gu\*



2517

**Highly coordinative molecular cobalt–phthalocyanine electrocatalyst on an oxidized single-walled carbon nanotube for efficient hydrogen peroxide production**

Yaoxin Li, Haoying Cheng, Meilin Wang, Jiaoxing Xu\* and Lunhui Guan\*



## CORRECTION

2528

**Correction: Kirigami-enabled stretchable laser-induced graphene heaters for wearable thermotherapy**

Junyu Chen, Yichao Shi, Binbin Ying, Yajie Hu, Yan Gao, Sida Luo\* and Xinyu Liu\*