

Materials Horizons

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See Soo-Hwan Jeong,
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pp. 10059–10069.
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See Youn Soo Kim
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EDITORIAL

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Materials Horizons Emerging Investigator Series:
Professor Xiangyu Jiang, Beihang University, China

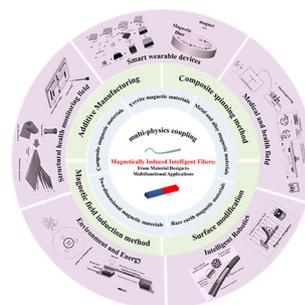


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**Magnetically responsive intelligent fibers:
nano-engineered materials and multifunctional
integration for advanced applications**

Wenping Cheng, Jie Dong,* Liang Wei, Guodong Shen,
Giushi Wang and Runjun Sun*



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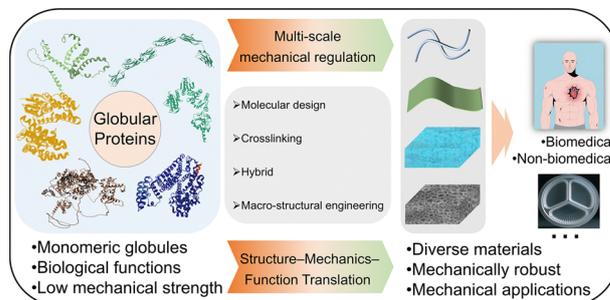


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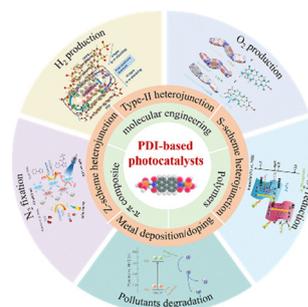
Haonan He, Peng Zhang* and Jian Ji*



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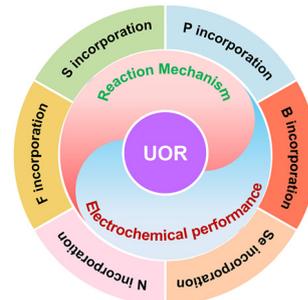
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Urea oxidation catalysts: a review on non-metallic enhancements in nickel-based electrocatalysts

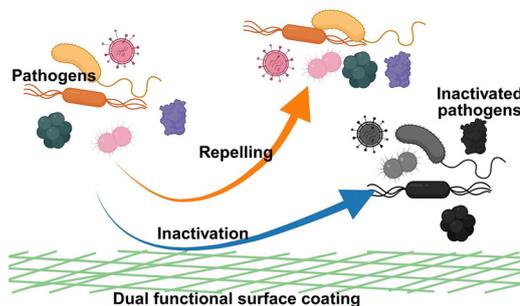
Qiong Li, Junyong Wang, Yuchen Shi, Huamei Li, Han Yang, Kun Xiang,* Wen You* and Jiyuan Liang*



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Dual-functional surface coatings integrating antimicrobial and antibiofouling mechanisms: from material design to application landscapes

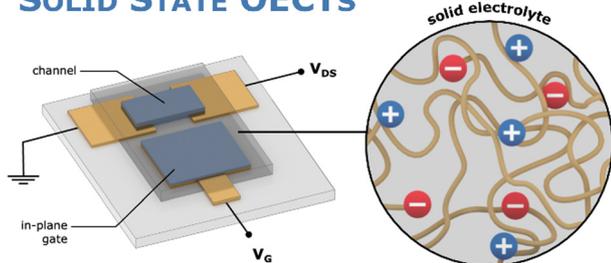
Sandya S. A. Athukoralalage and Nasim Amiralian*



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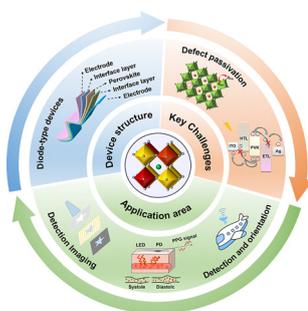
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Solid-state organic electrochemical transistors

Joshua N. Arthur, Scott T. Keene,
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Interface regulation toward high-performance narrow-bandgap perovskite photodetectors: mechanisms and challenges

Shuangshuang Xie, Minghui Cao, Henan Li, Zhi Xing,*
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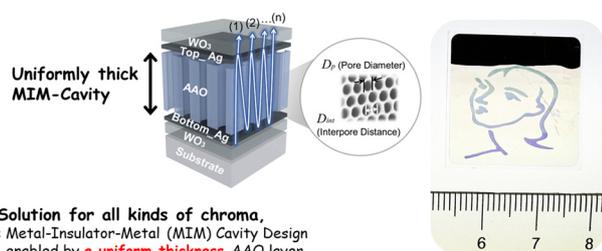


Research progress on conductive polymer-based microwave absorption materials: from materials design to functionalities and applications

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COMMUNICATIONS

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Solution for all kinds of chroma,
: Metal-Insulator-Metal (MIM) Cavity Design
enabled by a **uniform thickness** AAO layer

Artwork-like multicolor structural coloration via spatially patterned anodic aluminum oxide with uniform-cavity design

Hyo Jong Cho, Jun Yong Kim, Ki Won Jeong,
Soo-Hwan Jeong* and Yun Seon Do*

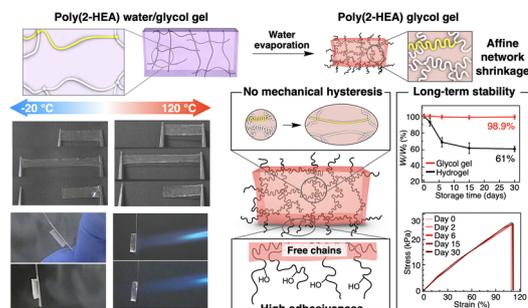


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Preserved elastic modulus and enhanced adhesion in long-term and thermally stable glycol gels via affine shrinkage upon water evaporation

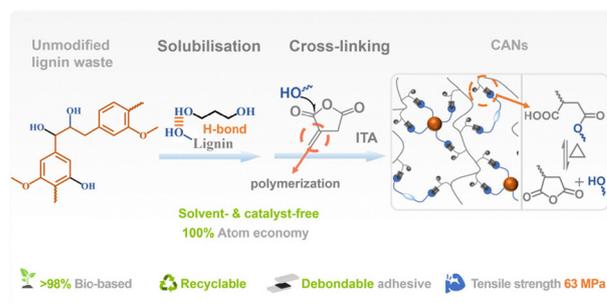
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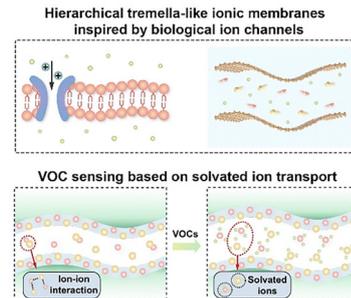
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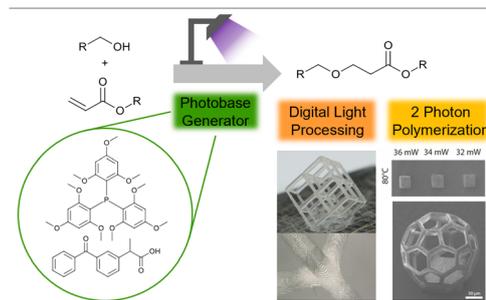
Lingyun Xu, Hongyang Liu, Qi Song, Xiaohan Sun, Zhihao Zhao, Zhenya Ge, Yupeng Chen,* Xiangyu Jiang* and Lei Jiang



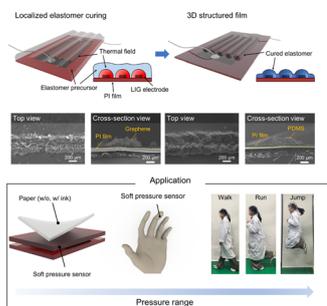
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Investigation of Lewis photobase-catalysed oxa-Michael addition for hot lithography

Klaus Ableidinger, Dominik Laa, Franziska Chalupa-Gantner, Edma Gjata, Patrick Knaack, Aleksandr Ovsianikov, Jürgen Stampfl, Christian Slugovc and Robert Liska*



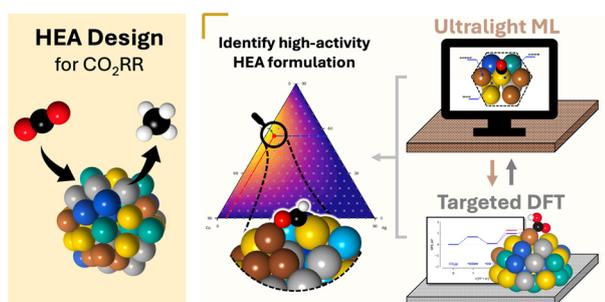
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Three-dimensional morphology in localized Joule heating-induced structured films for enhanced sensitivity in soft pressure sensors

Jiyeon Oh, Wookjin Lee, Jeongkyun Roh, Hanchul Cho* and Young Jung*

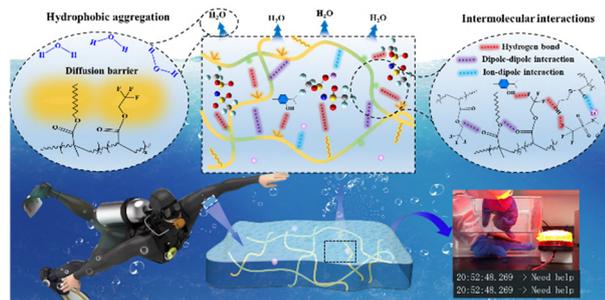
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Breaking scaling relations in AgAuCuPdPt high-entropy alloy nanoparticles for CO₂ electroreduction via machine learning

Juan Manuel Arce-Ramos, Quang Thang Trinh, Zicong Marvin Wong, Ben Wang, Benjamin W. J. Chen, Jia Zhang* and Teck Leong Tan*

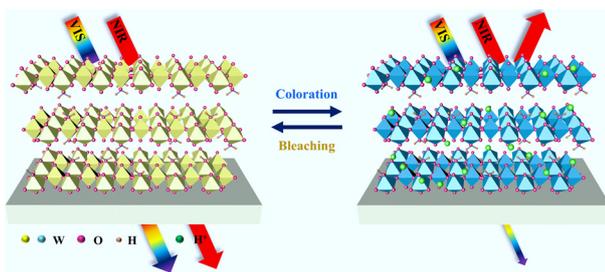
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Hydrophobic eutectogels with heterostructure for wearable sensing and undersea alarms

Wenna Wu,* Zhuangzhuang Jiang, Jie Liu, Wenlong Xu,* Shude Yang,* Tao Zhang and Jingcheng Hao

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Ultrathin WO₃·H₂O nanosheets derived from the Aurivillius phase for high-performance dual-band electrochromic smart windows

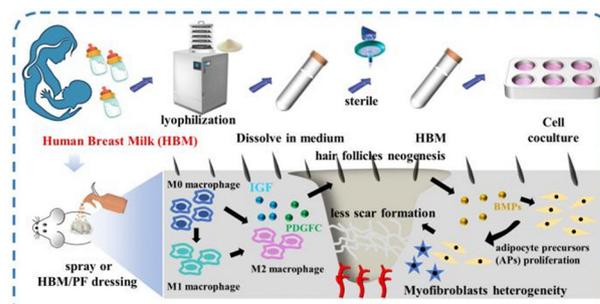
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Human breast milk as a bioactive material platform enabling scarless skin regeneration *via* macrophage reprogramming and myofibroblast heterogeneity

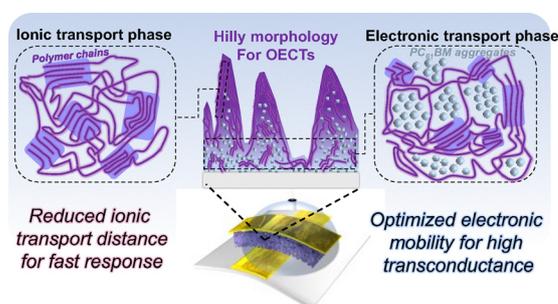
Caihong Xian, Zhipeng Gu and Jun Wu*



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Fullerene-derivative-induced hilly morphology for high-speed flexible organic electrochemical transistors

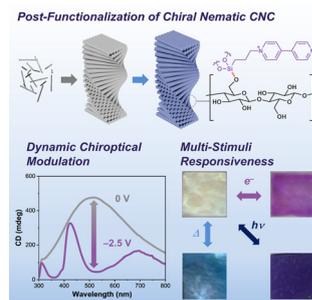
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Electro-switchable cellulose nanocrystal films with chiroptical properties

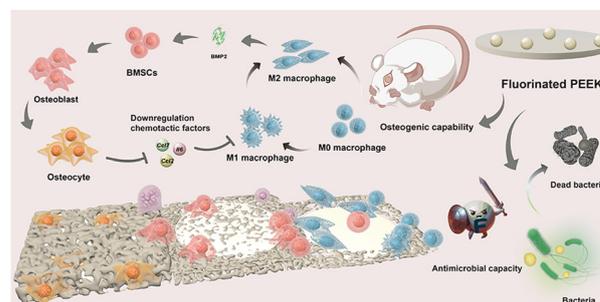
Yota Neagari, Miguel A. Soto, Yinghao Zhang, Zongzhe Li, Carl A. Michal and Mark J. MacLachlan*



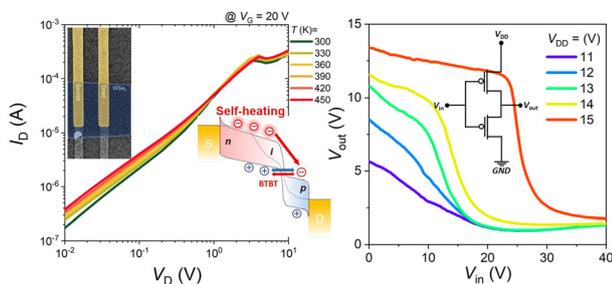
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Unexpected hydrophilicity and bio-selectivity of fluorinated PEEK: enhancing bone regeneration through macrophage and BMSC cooperation

Junwei Lyu, Xinyu Dai, Zhengqiang Li, Ding Zhang, Siyao Chen, Yang Liu, Leixiao Yu,* Peng Liu* and Xiangyang Liu*



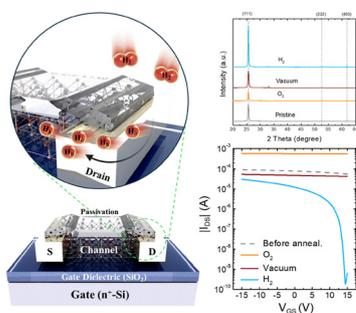
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High-temperature negative differential resistance in tungsten diselenide multilayers without heterojunctions

Hyejin Kim, Taesoo Kim, Yeongseo Han, Minji Chae, Dahyun Choi, Eunji Sim, Suin Seong, Min Cheong, Ji Soo Kim, Eunji Choi, Changyun Ko, Alessandro Cresti, Christoforos Theodorou and Min-Kyu Joo*

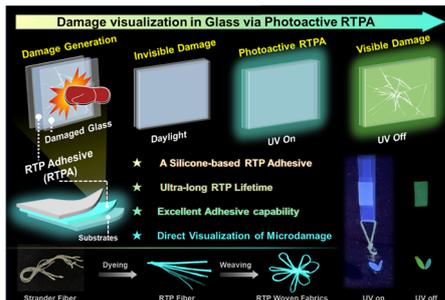
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Strategic defect engineering at the buried interface for metal-halide transistors

Hyo-Won Jang, Go-Eun Kim, Mi-Jeong Kim, Joong Bum Rhim, Tae In Kim, Hyuck-In Kwon* and Ick-Joon Park*

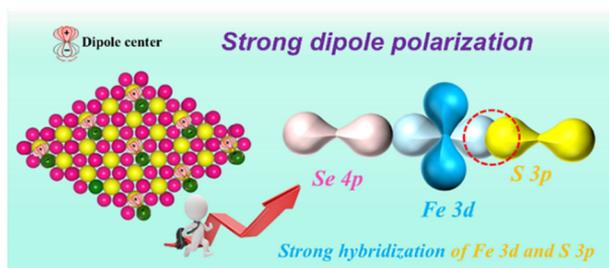
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A silicone adhesive with ultralong room-temperature phosphorescence for direct damage visualization

Nan Li, Shiyu Gu, Qi Wu* and Jinrong Wu*

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Unconventional strong 3p-3d orbital hybridization in sulfur-doped FeSe: for tailored ultrathin electromagnetic wave absorbers

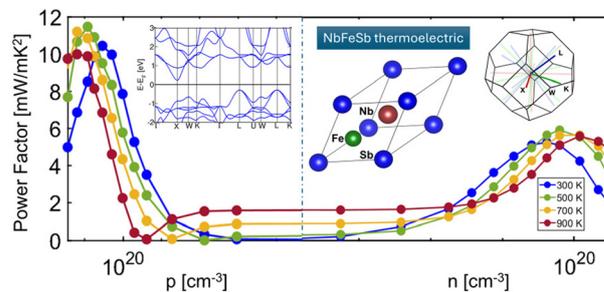
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Thermoelectric transport and the role of different scattering processes in the half-Heusler NbFeSb

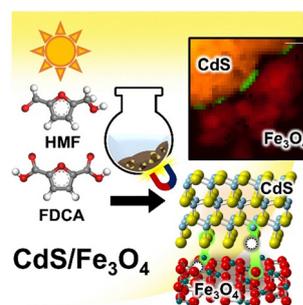
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In situ study of visible light-activated photocatalytic conversion reaction enhancement of biomass using a magnetic heterostructure

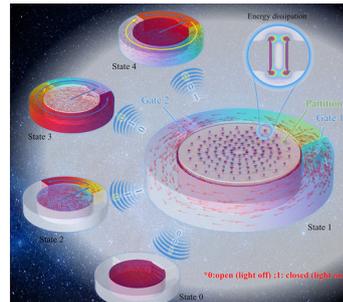
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A programmable acoustic metamaterial: achieving untethered ultra-broadband modulation with photoactive structural transition

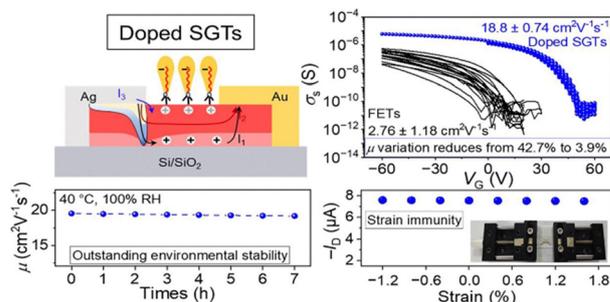
Yachao Zhang, Longfei Chang,* Tao Wang, Shuai Han, Jiazhu Li, Peng Fan, Xu Ding, Fei Tang, Ying Hu* and Alvo Aabloo



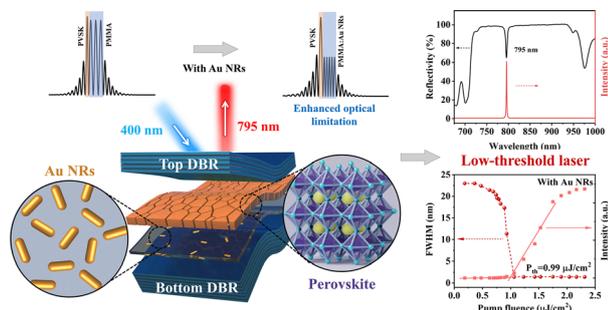
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Synergistic surface doping of organic crystals with source-gated architectures: ultra-stable, high-mobility and strain-insensitive stretchable transistors

Xiaojing Zhang, Dong Liu, Bin Lu, Liehao Tian, Yuxin Li, Dalin Li, Jiawei Zhang and Tao He*



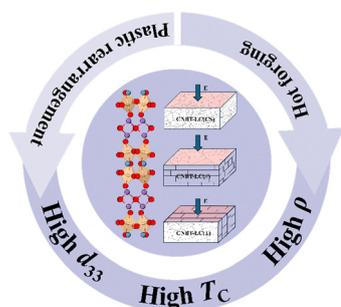
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Improvement of optical confinement for high performance perovskite vertical-cavity surface-emitting lasers with the localized surface plasmon resonance effect

Liangliang Zhu, Shuai Huang,* Qin Zhang, Sunan Li, Jisheng Wang, Xinping Zhang and Baolu Guan*

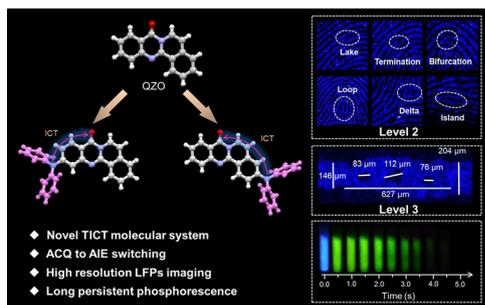
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Inducing superior electrical performances in textured $\text{CaBi}_2\text{Ta}_2\text{O}_9$ based ceramics

Wei Shi, Mingyue Mo, Qi Hu, Zhi Tan, Shangyi Guan, Liang Xu, Jie Xing and Qiang Chen*

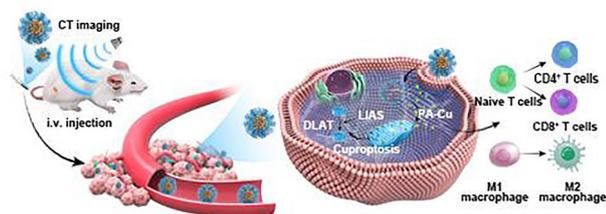
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Overcoming ACQ: DPA-modified TICT-type AIEgens for high-resolution and multilevel latent fingerprint visualization

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Traceable nanoparticles with mitochondria-targeting pyruvate-Cu induce cuproptosis for enhanced triple-negative breast cancer therapy in a mouse model

Chen Peng, Jiaxin Li, Nan Wang, Xinyue Zhang, Wen Zhang, Zhirui Li, Keyi Zhang, Yangchaowei Ji, Wei He and Yan Li*

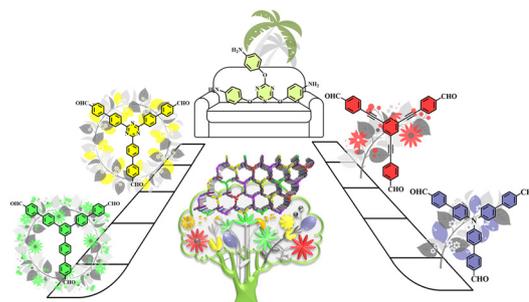


COMMUNICATIONS

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Mixed-linker approach employing a flexible monomer for constructing highly crystalline multiple-component covalent organic frameworks

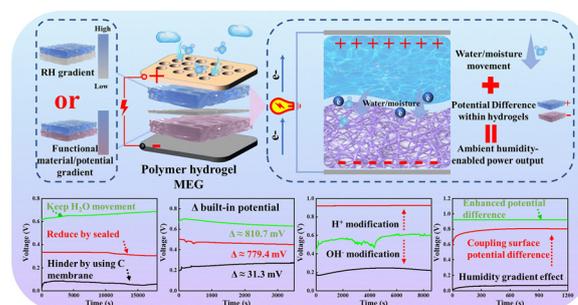
Yogesh Kumar, Sandeep Gupta, Shyamapada Nandi, Arun Kumar, Paritosh Mohanty and Ravindra Pandey*



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Uncovering internal water-flux and surface-potential dominance in hydrogel-based moisture-enabled power generation: mechanistic insights and performance enhancement

Huping Yan, Liangyu Li, Chuanshuai Dong, Hao Wu* and Ronghui Qi*



CORRECTION

10370

Correction: Hydrophobic eutectogels with heterostructure for wearable sensing and undersea alarms

Wenna Wu,* Zhuangzhuang Jiang, Jie Liu, Wenlong Xu,* Shude Yang,* Tao Zhang and Jingcheng Hao

