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Materials for optical, magnetic and electronic devices

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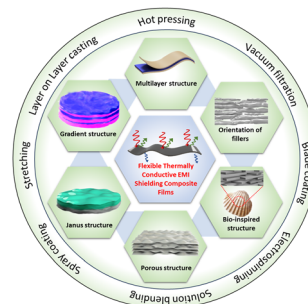
See Kang Yan, Tao Tan, Dawei Wu *et al.*, pp. 8958–8968. Image reproduced by permission of Kang Yan from *J. Mater. Chem. C*, 2025, 13, 8958.

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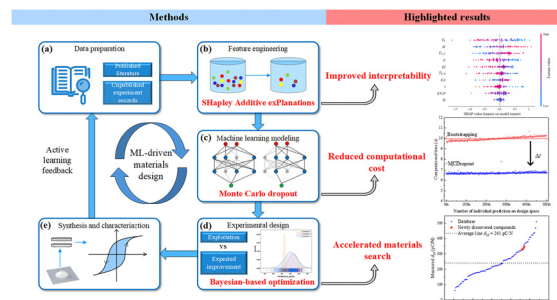
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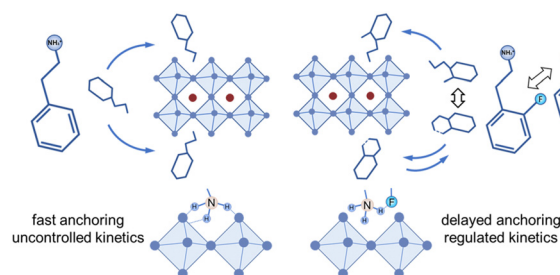
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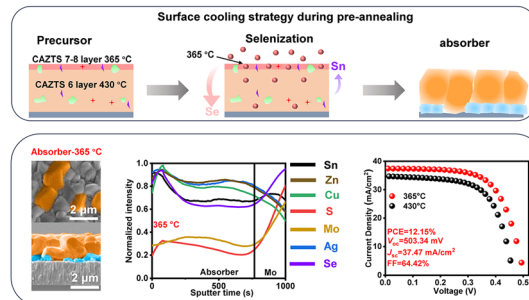
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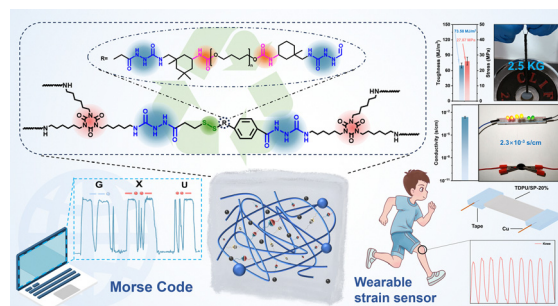
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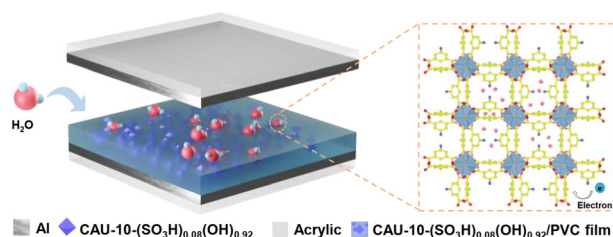
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Zhecheng Hu, Changsheng Wang, Xiwei Xu, Ziqian Wang, Yuxuan Xie, Zequan Li* and Wei Gao



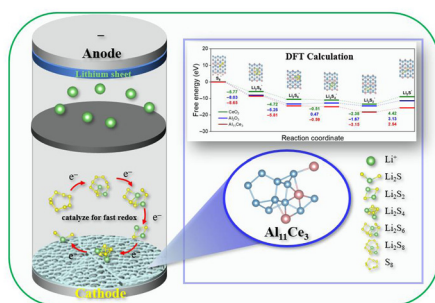
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Junhui Wu, Baoping Yang,* Jiahao Zhou, Yuan Ye, Ming Zhong, Yong Ding and Kun Zhao*

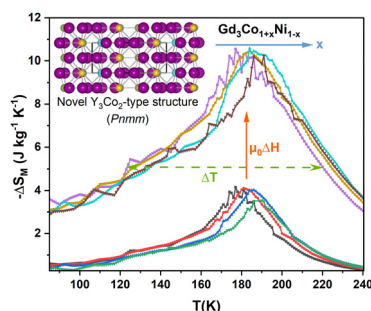
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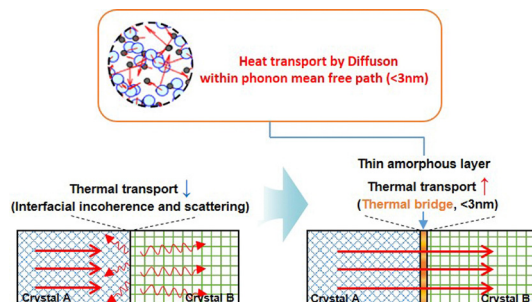
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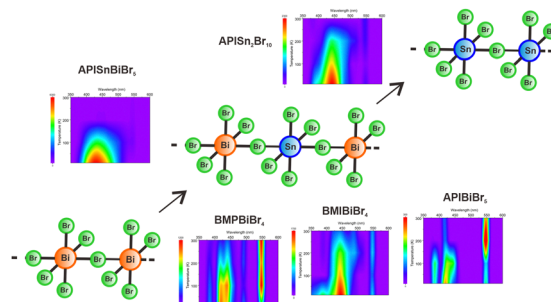
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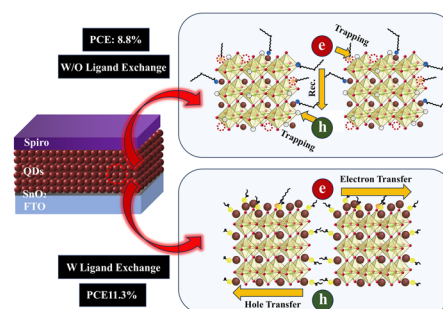
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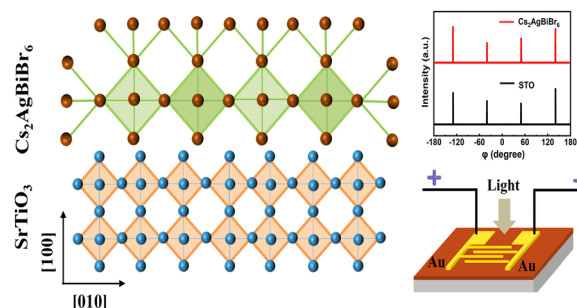
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Lead-free perovskite Cs₂AgBiBr₆ epitaxial thin films for high-performance and air-stable photodetectors

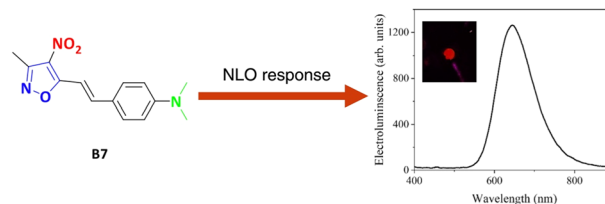
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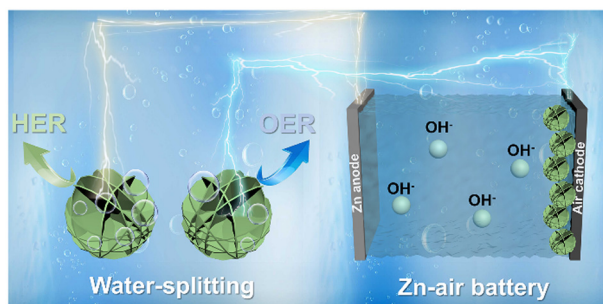
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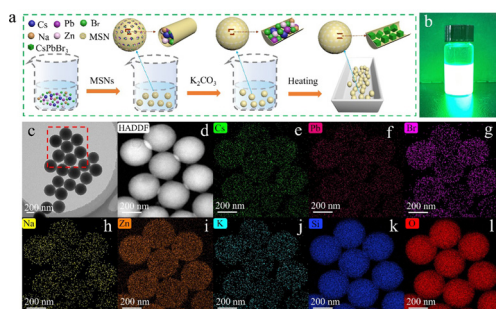
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NiFe₂O₄ nanoflowers with Mo doping for self-powered hydrogen production at large current density

Xinxin Zheng, Zhuo Wang, Decheng Zeng, Yu Qiao, Zihan Li, Juan Jian* and Hongming Yuan*

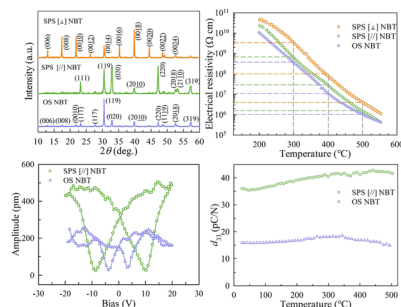
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Mesoporous silica-coated CsPbBr₃:ZnBr₂:NaBr nanocrystals with high photoluminescence and tunable wavelengths for micro light-emitting diodes

Hai Huang, Shengnan Yin, Zhengbo Fu, Chunyan Cao, Ruidan Zhang, Daqin Chen* and An Xie*

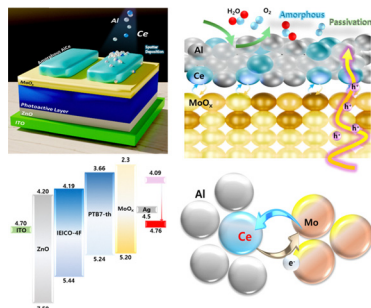
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Evolution of charge pathways through amorphous aluminum–cerium electrode for stable organic photovoltaics

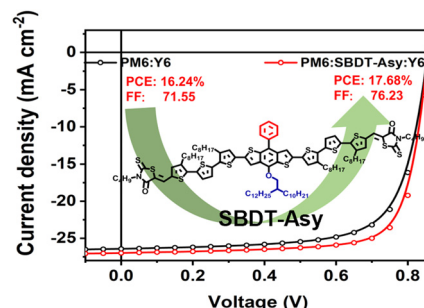
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Morphology control through incorporation of an asymmetric small molecule donor for efficient ternary organic solar cells

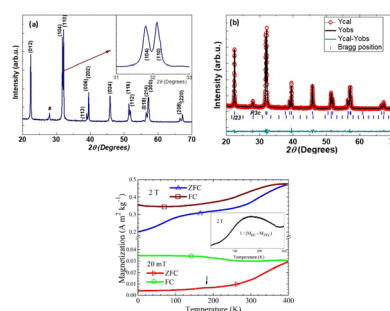
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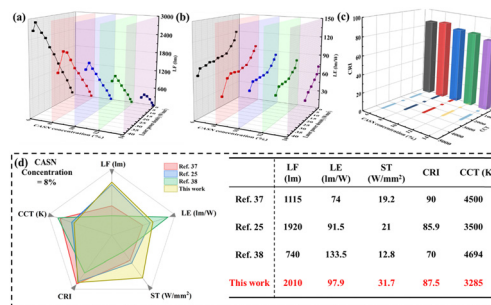
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Phosphor-converted warm white laser diodes with high saturation threshold through a PiGF-dual sapphire converter

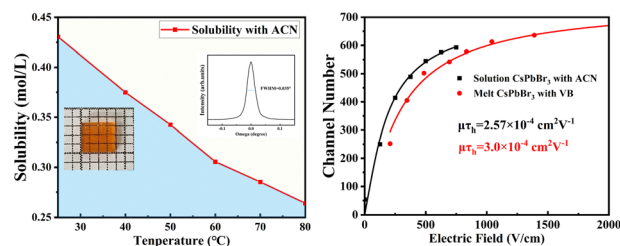
Hongjin Zhang, Mingxi Liang, Han Chen, Jiuzhou Zhao,
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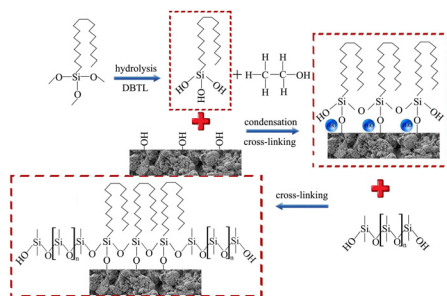
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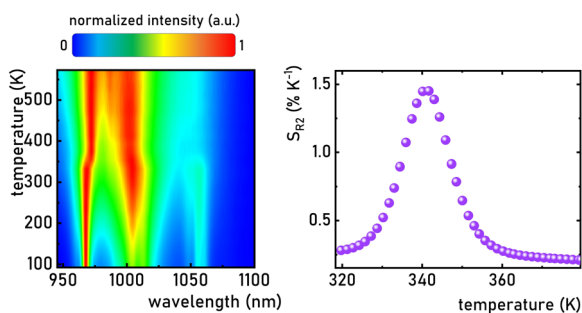
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Study on the corrosion resistance and antibiofouling performance of mortars with slippery liquid-infused porous surfaces based on fine coral powder

Yayun Zhao, Qing Wang,* Xu Zheng, Rui Zhang and Ning Wang

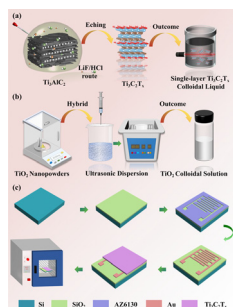
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NIR-to-NIR ratiometric and lifetime based luminescence thermometer on a structural phase transition in $\text{Na}_3\text{Sc}_2(\text{PO}_4)_3:\text{Yb}^{3+}$

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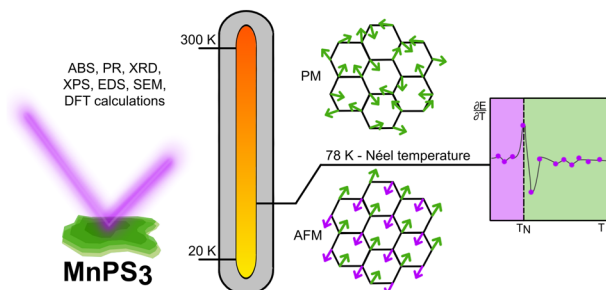
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A high performance $\text{TiO}_2@\text{Ti}_3\text{C}_2\text{T}_x$ MXene water vapor sensing material for diagnosing early SGTR accidents in nuclear power plants

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Electronic, optical and structural properties of MnPS_3 : advanced spectroscopy and theoretical investigation

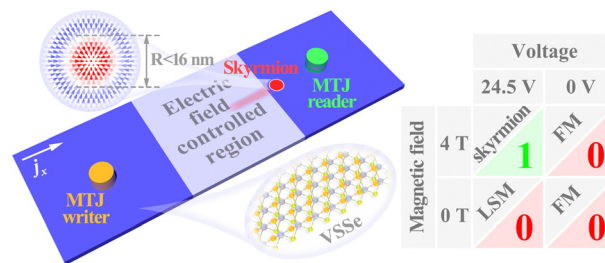
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Towards room-temperature stable topological magnetic semiconductors based on two-dimensional Janus vanadium chalcogenides

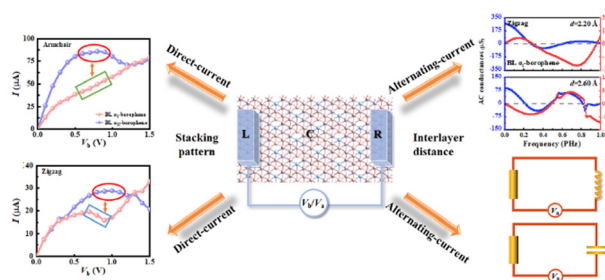
Shuo Zhang, Yunfei Zhang, Minghao Jia, Dan Xing, Lixiu Guan* and Junguang Tao*



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The direct-current and alternating-current transport properties of bilayer α - and α^+ -borophenes

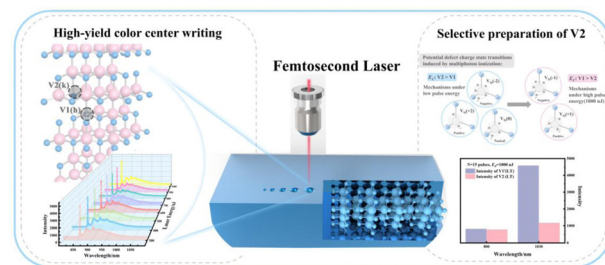
Yajing Wang, Zhi Yang,* Li-Chun Xu, Lin Xue, Ruiping Liu and Xuguang Liu



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Femtosecond laser writing of silicon vacancy color centers with specific defect orientations in silicon carbide

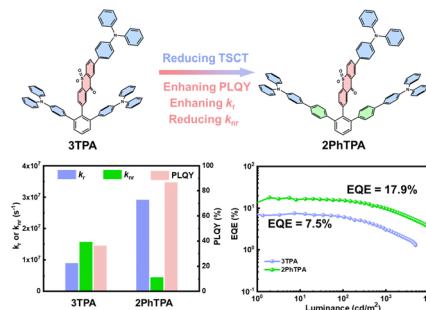
Xiaoqing Liu, Yan Liu, Chengrui Tian, Runsheng Zheng, Yan Li, Junlei Wang, Qingbo Li* and Xian Zhao*



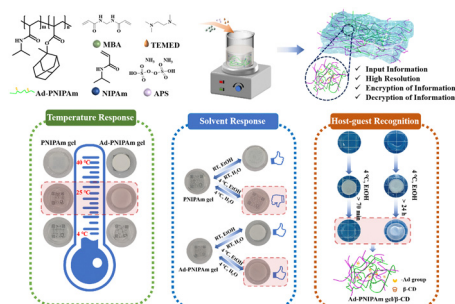
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Optimizing through-space charge transfer in thermally activated delayed fluorescence emitters for enhanced OLED efficiency

Zhi Pang, Shaogang Shen, Xin Xie, Xinyi Lv, Yifan Liu, Jianjun Liu* and Ying Wang*



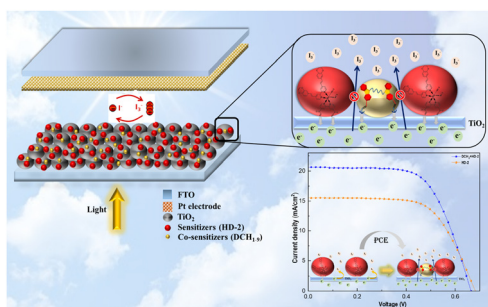
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Lower temperature and solvent dual response induced reversible information encryption and decryption hydrogels with host–guest recognition regulation

Yanan Bu, Ting Wu, Jiji Fan, Xiuqiong Chen, Siyuan Zhao, Zhenrong Yu, Huiqiong Yan* and Qiang Lin

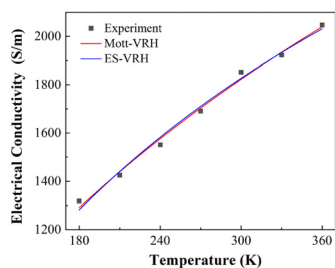
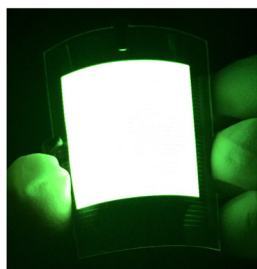
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Push–pull carbazole twin dyads as efficient sensitizers/co-sensitizers for DSSC application: effect of various anchoring groups on photovoltaic performance

Kavya S. Keremane, Islam M. Abdellah,* Mohamed R. Eletmany, Praveen Naik, P. Anees and Airody Vasudeva Adhikari*

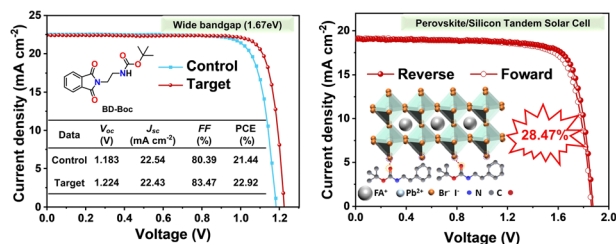
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Flexible transparent layered metal oxides for organic devices

Tao Zhang, Peicheng Li, Nan Chen, Jiale Su, Zhenxin Yang, Dengke Wang, Nan Jiang, Changsheng Shi, Qiang Zhu, Hongyu Yu and Zheng-Hong Lu*

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A multifunctional additive for enhancing the performance of single-junction perovskite and perovskite/silicon tandem solar cells

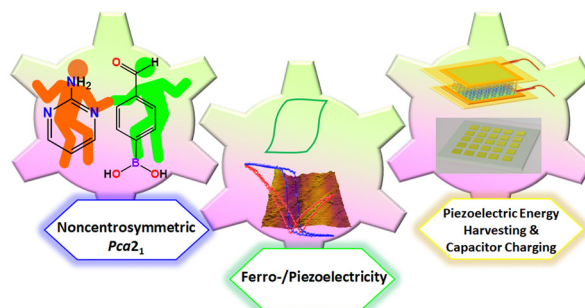
Xin Yang, Qinghong Song, Yuanzhong Liu, Lin Yang, Yiran Yan, Jin Huang, Liyou Yang, Xiangrong Zhu,* Qichen Zhao,* Xiaofei Ji and Linfeng Lu

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A boronic acid-based neutral two-component ferroelectric for piezoelectric energy harvesting and charge-storage applications

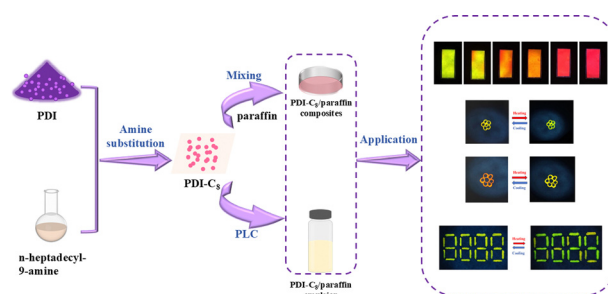
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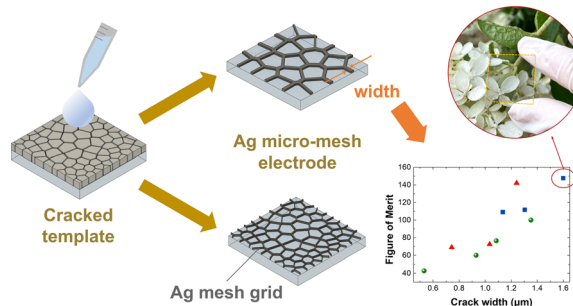
Yiming Gou, Zejun Cao, Chunhua Ge,* Rui Liu, Han Xu, Fengqi Li and Xiangdong Zhang*



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Optimized electrical and optical properties of Ag micro-meshes by self-generated cracks for transparent electrodes

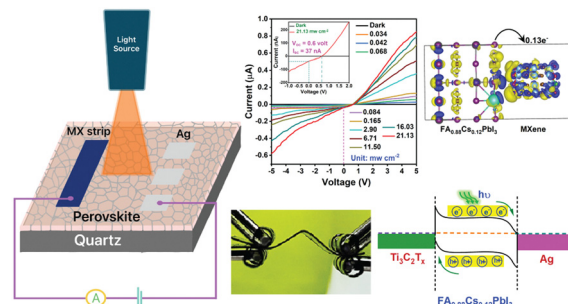
Seung Taek Jo, Jin Wook Shin, Min-Soo Kim, Sang-Shik Park, Walter Commerell, Hyesun Yoo,* Jinyoung Hwang* and Jong Wook Roh*



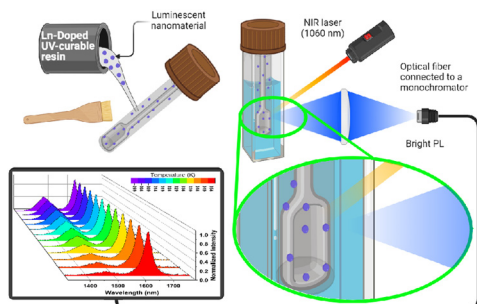
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Asymmetric contact enabled self-powered flexible photodetector utilizing formamidinium-based perovskite with a 2D MXene electrode

Debabrata Sahu, Sanjoy Sur Roy, Koushik Ghosh and P. K. Giri*



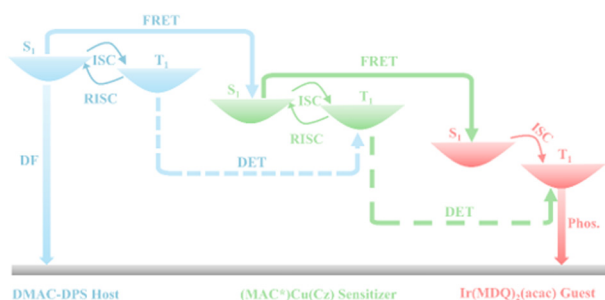
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Photon-avalanche for developing a high-sensitivity 3D-printed optical temperature sensor

Christian Hernández-Álvarez,* Inocencio R. Martín,*
Tomasz Grzyb and Fernando Rivera-López

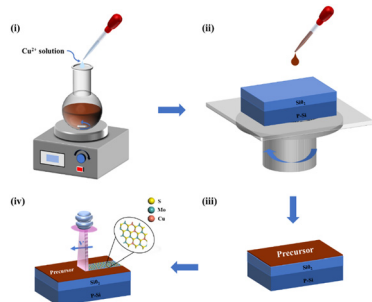
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Color-stable and highly efficient solution-processed white OLEDs with a copper(i) complex as a sensitizer

Zhiling Qi, Jianlong Xie, Qiyin Chen, Shaolong Gong*
and Guohua Xie*

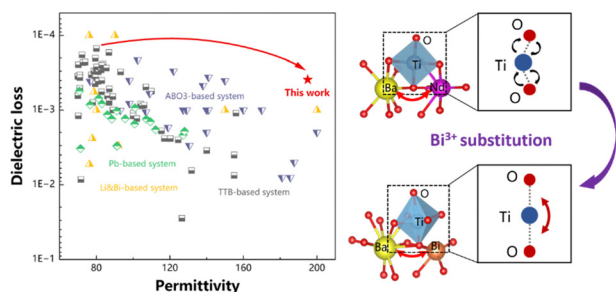
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In situ growth of Cu-doped MoS₂ thin films via a laser-induced technique: efficient P-type doping and effective enhancement of the FET device performance

Hu Shijiao, Hu Yishuo, Gan Zhuocheng, Yang Yufei,
Qiu Leqi, Peng Yu, Deng Huaicheng, Wen Zhiqi,
Zhang Wenhao, Wei Bo, Hu Yuantai, Yang Wanli and
Zeng Xiangbin*

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Strong polarization in paraelectric tungsten–bronze systems via bond engineering

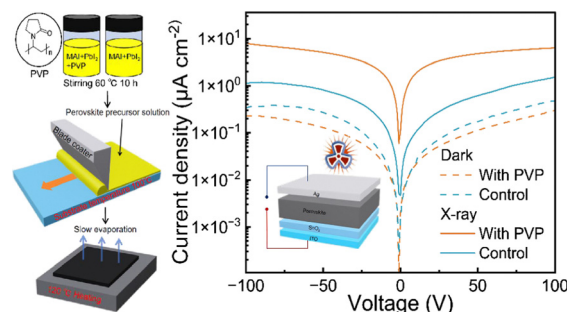
Yiying Chen, Junlei Qi, Bin Wei, Ce-Wen Nan and
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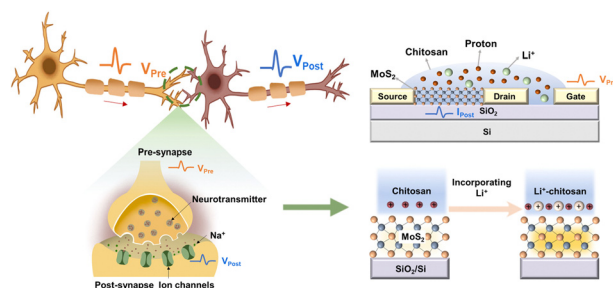
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Polyvinylpyrrolidone-enhanced perovskite films for efficient direct X-ray detection

Yanlong Hua, Jiahui Chen, Cuiling Guo, Shan-Ci Chen,*
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Tunable synaptic plasticity in MoS₂ neuromorphic transistors using Li⁺ incorporated chitosan electrolytesLemei Zhu, Chaoqi Dai, Sikai Chen, Airong Liu,
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Revealing energy transfer mechanisms and accelerating intelligent detection: Cr³⁺ and Ni²⁺ co-doped Lu₂CaMg₂Si₃O₁₂ phosphors for NIR applicationsZaidong Chen, Yuefei Xiang, Xinghui Qin, Lei Zhong,
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