

# Journal of Materials Chemistry C

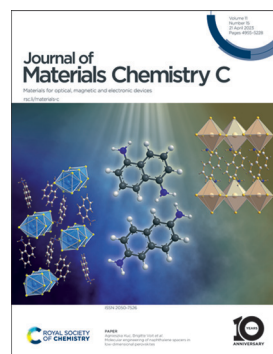
Materials for optical, magnetic and electronic devices

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Kui Liu, Zhuang Xu, Jing Mei, Jinlu Han, Fenghua Zheng, Hongqiang Wang, Youguo Huang, Qiang Wu, Guofeng Qin,\* Juantao Jiang\* and Qingyu Li\*

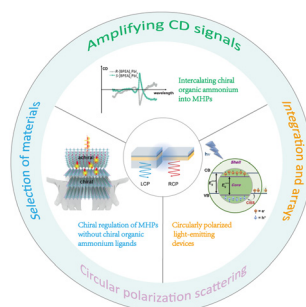


## PERSPECTIVE

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### Metal halide perovskites: promising materials toward next-generation circularly polarized luminescence

Bing Liang, Li Zhang, Yuanzhi Jiang, Siqi Chen and Mingjian Yuan\*



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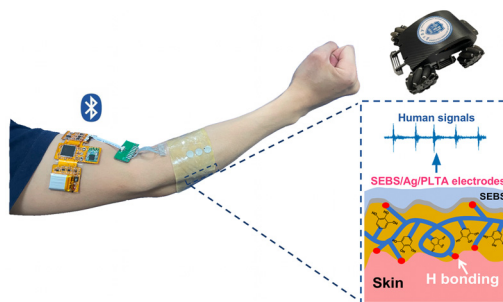


## COMMUNICATIONS

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**Screen printing of stretchable silver nanomaterial inks for a stable human–machine interface**

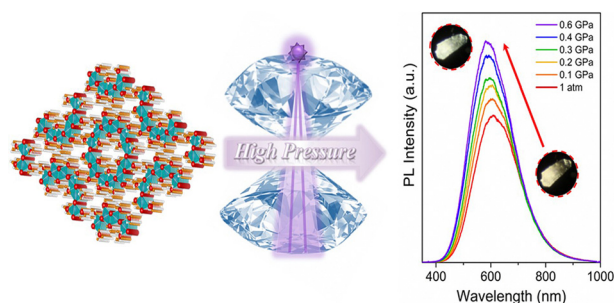
Yixuan Liu, Jianxiong Hao, Xinran Zheng, Chaoyang Shi\* and Hui Yang\*



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**Tuning white light emission and band gap in the one-dimensional metal halide (C<sub>6</sub>H<sub>13</sub>N<sub>4</sub>)<sub>3</sub>Pb<sub>2</sub>Br<sub>7</sub> by pressure engineering**

Nan Li, Yuanyuan Fang, Long Zhang,\* Kai Wang and Bo Zou\*

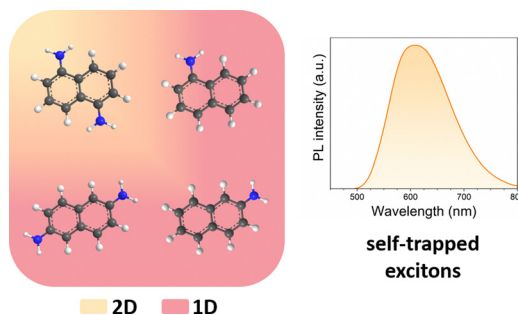


## PAPERS

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**Molecular engineering of naphthalene spacers in low-dimensional perovskites**

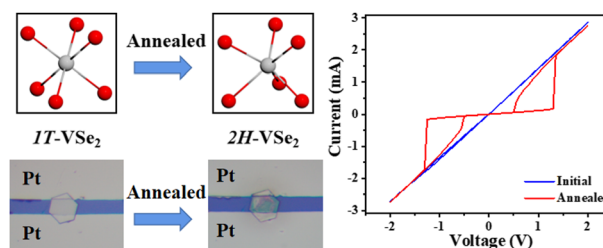
Andrei Mitrofanov, Yonder Berencén, Elaheh Sadrollahi, Regine Boldt, David Bodesheim, Hendrik Weiske, Fabian Paulus, Jochen Geck, Gianaurelio Cuniberti, Agnieszka Kuc\* and Brigitte Voit\*



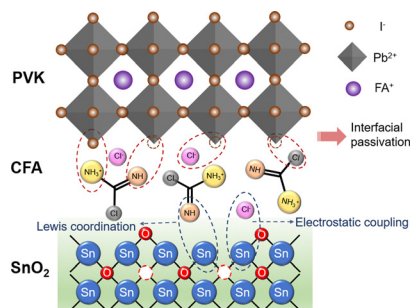
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**Chemical-vapor-deposited 2D VSe<sub>2</sub> nanosheet with threshold switching behaviors for Boolean logic calculations and leaky integrate-and-fire functions**

Lun Zhong, Wanxuan Xie, Jinxiang Yin and Wenjing Jie\*



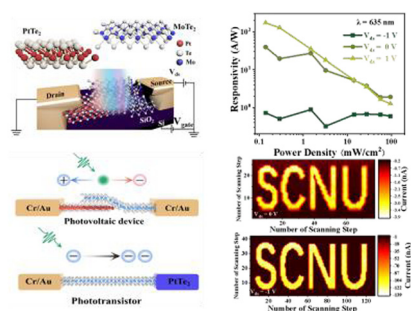
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### Chloroformamidine hydrochloride as a molecular linker towards efficient and stable perovskite solar cells

Hui Li, Ping Fu, Ruixue Lu, Junxue Guo, Xin Guo, Rengui Li and Can Li\*

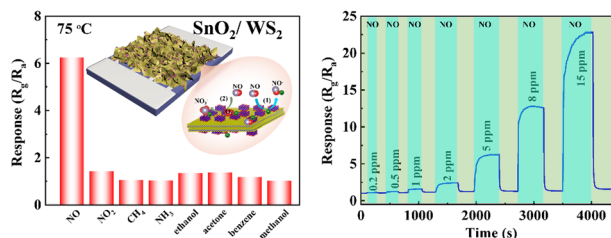
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### Diverse modes regulated photoresponse and high-resolution imaging based on van der Waals semimetal PtTe<sub>2</sub>/semiconductor MoTe<sub>2</sub> junctions

Ying Huang, He Yu, Wei Gao,\* Peiting Wen, Zihao Liu, Hanyu Wang, Menglong Zhang\* and Jingbo Li\*

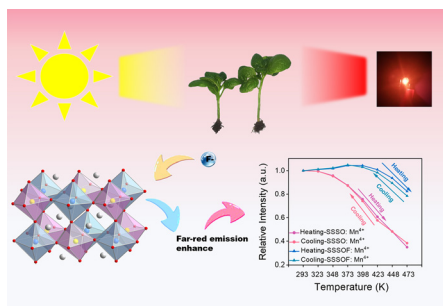
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### Oxygen vacancy engineered tin dioxide/tungsten disulfide heterostructure construction for effective NO sensing

Baofeng Lv, Yongyong Pei, Shuo-En Wu, Tingting Xu,\* Xiaowen Huang,\* Yongtao Tian, Xinchang Wang, Longhui Zeng\* and Xinjian Li

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### Flux induced highly efficient and stable phosphor Sr<sub>2</sub>ScSbO<sub>6</sub>:Mn<sup>4+</sup> for plant growth lighting

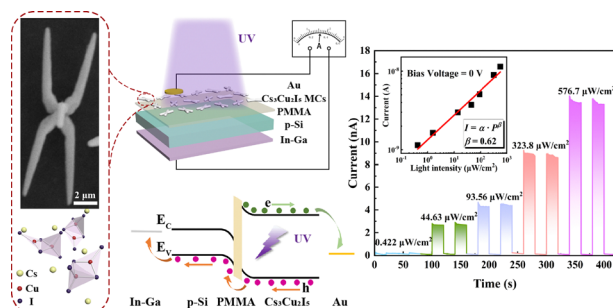
Xue Meng, Zhijun Wang,\* Zekang Yan, Dongxu Guo, Mengdi Liu, Jie Gong, Xiuxiu Feng, Ting Zhang, Xiaojie Li and Panlai Li\*



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## Enhanced self-powered UV photodetection from X chromosome-shaped $\text{Cs}_3\text{Cu}_2\text{I}_5$ microcrystals

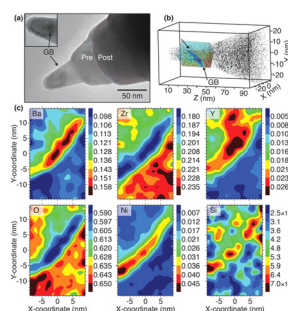
Xuesong Li, Yulu Zhou,\* Fengchang Huang, Xiaoma Tao, Yifang Ouyang, Xiaoming Mo\* and Jialong Zhao\*



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## Understanding the effects of fabrication process on $\text{BaZr}_{0.9}\text{Y}_{0.1}\text{O}_{3-\delta}$ grain-boundary chemistry using atom probe tomography

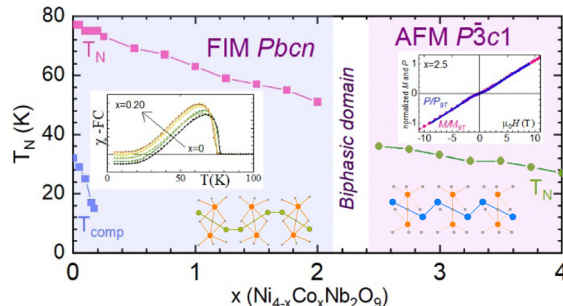
Daniel R. Clark,\* David R. Diercks, Sandrine Ricote, Tania Tauer Dearden, Neal P. Sullivan, J. Will Medlin, Brian P. Gorman and Ryan P. O'Hayre\*



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## The $\text{Ni}_{4-x}\text{Co}_x\text{Nb}_2\text{O}_9$ phase diagram: from magnetization reversal to linear magnetoelectricity

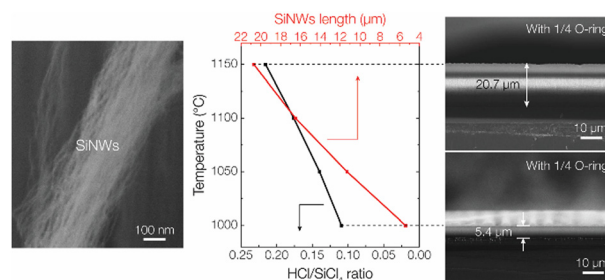
J. N. Jiongo-Dongmo, J. P. Bolletta, A. Maignan, F. Damay and C. Martin\*



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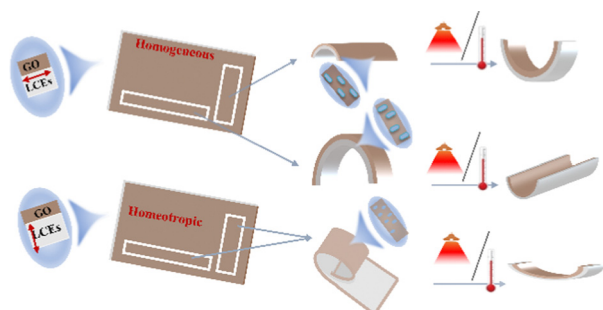
## Chemical vapor etching of silicon wafer for the synthesis of highly dense and aligned sub-5 nm silicon nanowire arrays

Sen Gao,\* Juyeon Seo, Sanghyun Hong, Jianlin Li, Pei Yun Feng, Ji Young Byun and Yung Joon Jung\*





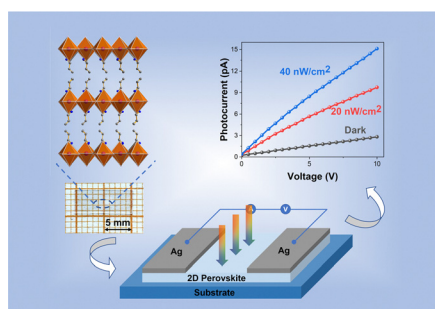
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### Photothermal responsive composites of graphene oxide/liquid crystal networks with different mesogenic arrangements towards flexible and bionic devices

Ruicai Guo, Wenhui Gao, Xiaoshuai Li, Meishan Zhang, Hongmei Ma, Haifeng Yu and Yubao Sun\*

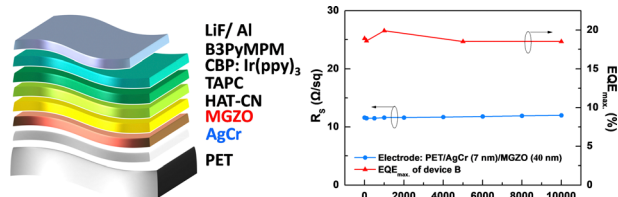
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### Centimeter-size single crystals of 2D hybrid perovskites for shortwave light photodetection with a low detection limit

Chengshu Zhang, Hao Xiao, Qianwen Guan, Tingting Zhu, Lishan Liang, Ruiqing Li, Huang Ye, Xinyi Niu and Junhua Luo\*

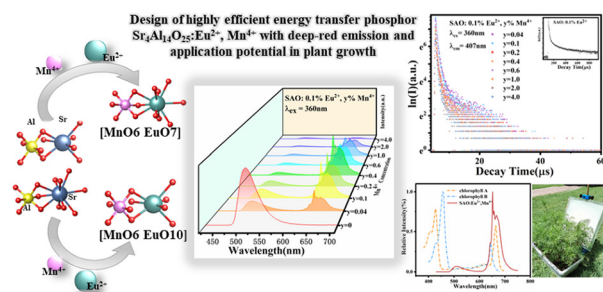
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### A transparent composite electrode composed of AgCr and Mo-doped GaZnO to realize flexible bottom-emitting OLEDs

Meng-Hsuan Chiu, Dun-Cheng Huang, Cheng-Yung Ho, I-Hsuan Chuang, Yi-Ching Chen, Tzu-Hsin Hsiao and Chih-Hao Chang\*

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### Design of highly efficient energy transfer phosphor $\text{Sr}_4\text{Al}_{14}\text{O}_{25}:\text{Eu}^{2+}, \text{Mn}^{4+}$ with deep-red emission and application potential in plant growth

Cancan Li, Yunpeng Zhou, Takatoshi Seto\* and Yuhua Wang\*

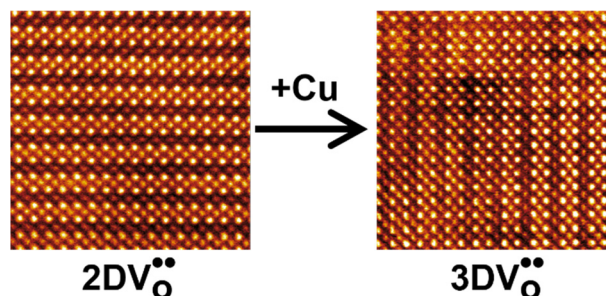


## PAPERS

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### Highly-conductive Cu-substituted brownmillerite with emergent 3-dimensional oxygen vacancy channels

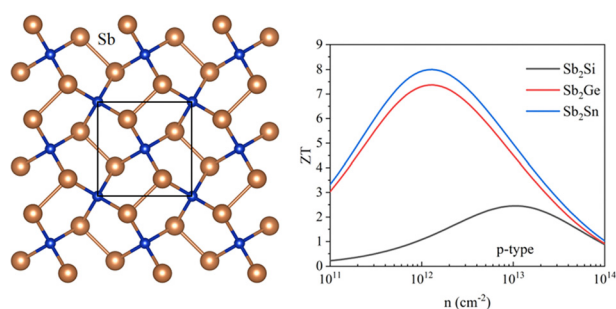
Wenqiao Han, Songbai Hu, Xiaowen Li, Qi Liu, Mao Ye, Zedong Xu, Sixia Hu, Yuanmin Zhu\* and Lang Chen\*



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### Transport and thermoelectric properties of penta-Sb<sub>2</sub>X monolayers

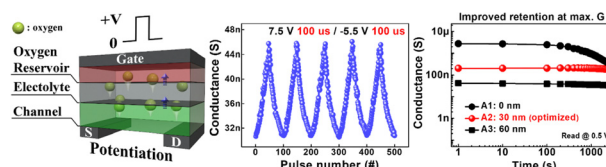
Nan Wu, Xiaofeng Fan,\* David J. Singh and W. T. Zheng



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### Role of the electrolyte layer in CMOS-compatible and oxide-based vertical three-terminal ECRAM

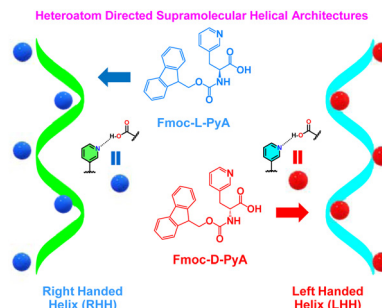
Geonhui Han, Jongseon Seo, Hyejin Kim and Deaseok Lee\*



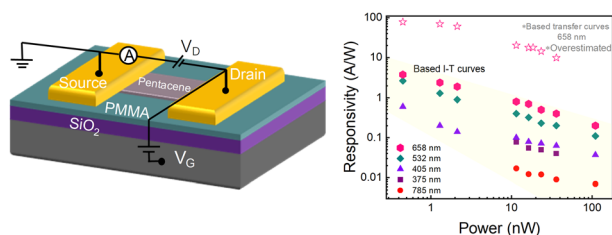
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### Heteroatom-directed supramolecular helical-rich architectures in N-terminal protected pyridyl aromatic amino acids

Thangavel Vijayakanth, Bin Xue, Sarah Guerin, Sigal Rencus-Lazar, Natalia Fridman, Damien Thompson, Yi Cao and Ehud Gazit\*



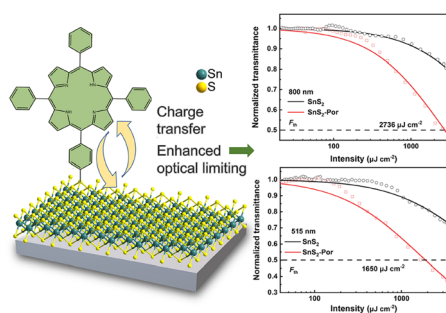
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### Organic photodetectors based on pentacene single crystals with fast response and flexibility

Qianqian Du, Zhifeng Wang, Mengru Li, Yuquan Gan, Shuhong Li, Yunlong Liu, Wenjun Wang,\* Fengqiu Wang and Shuchao Qin\*

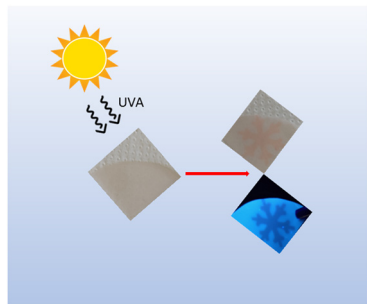
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### Covalent functionalization of tin disulfide with porphyrin for ultrafast optical limiting

Zhiyuan Wei, Yan Fang, Hui Li, Zihao Guan, Naying Shan, Fang Liu, Yang Zhao, Lulu Fu, Zhipeng Huang, Mark G. Humphrey\* and Chi Zhang\*

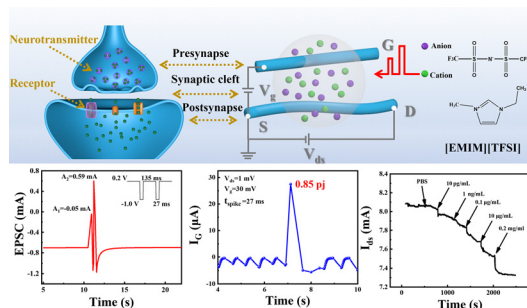
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### Irradiation-responsive polysulfone film as a colorimetric UVA/UVB differentiator

Bernardo Monteiro, João Paulo Leal, Mani Outis, Maria Helena Casimiro and Cláudia C. L. Pereira\*

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### Boron nitride-mediated semiconductor nanonetwork for an ultralow-power fibrous synaptic transistor and C-reactive protein sensing

Mufang Li, Qing Shu, Xing Qing,\* Jianmei Wu, Qing Xiao, Kangyu Jia, Xungai Wang and Dong Wang\*



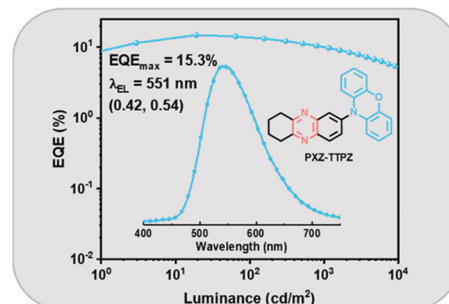


## PAPERS

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# Quinoxaline-based thermally activated delayed fluorescence emitters for highly efficient organic light-emitting diodes

Xiaoning Li, Yi Chen, Shuhui Li, Aisen Li, Liangjing Tu, Dongdong Zhang,\* Lian Duan, Yujun Xie,\* Ben Zhong Tang\* and Zhen Li\*



## CORRECTION

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## Correction: Photocatalytic removal of benzene over Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene and TiO<sub>2</sub>–MXene composite materials under solar and NIR irradiation

Sergii A. Sergijenko,\* David M. Tobaldi,\* Luc Lajaunie, Daniela V. Lopes, Gabriel Constantinescu, Aliaksandr L. Shaula, Nataliya D. Shcherban, Viacheslav I. Shkepu, José J. Calvino, Jorge R. Frade, João A. Labrincha and Andrei V. Kovalevsky

