

Journal of Materials Chemistry C

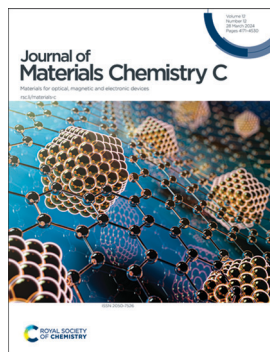
Materials for optical, magnetic and electronic devices

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Cover

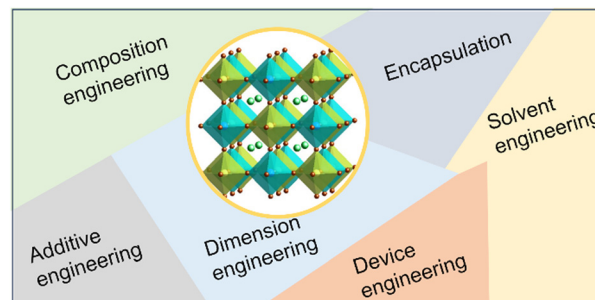
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REVIEW

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Strategies for constructing high-performance tin-based perovskite solar cells

Barbara Nakamanya, Tonny Kakooza, Qianwen Sun, Marjan Haghayegh, Andrew Balilonda, Mike Tebyetekerwa, Shengyuan Yang* and Meifang Zhu

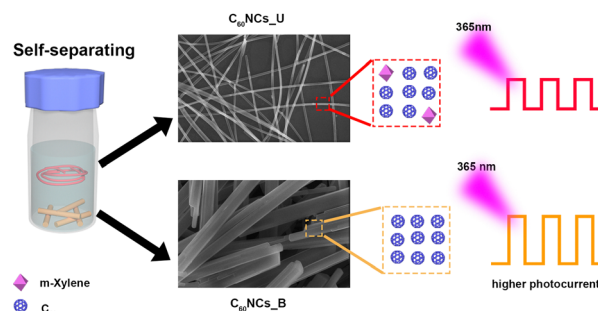


COMMUNICATIONS

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Solvent engineering of self-separating fullerene crystals for photodetectors

Qin Tang, Lingyue Wang, Yang Liu, Yuye Zhang, Deyang Ji* and Hongbo Li*



Environmental Science: Atmospheres

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Fundamental questions
Elemental answers

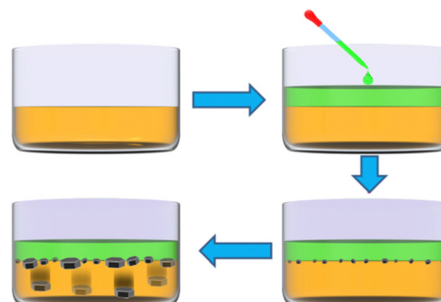


COMMUNICATIONS

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Interfacial diffused reaction at two-phase solution induced crystallization for high-quality perovskite single crystals

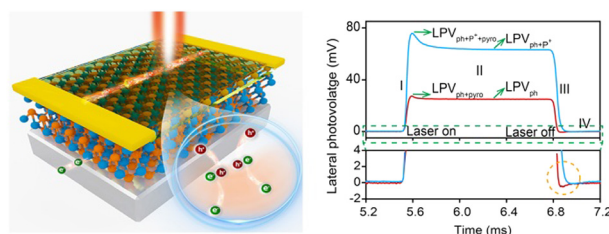
Zhun Yao, Feifei Chai, Guiqiang Li, Zhiping Zhang, Xiushan Wang, Xingxuan Zuo, Lanlan Li,* Quanguo Zhang* and Yucheng Liu*



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Boosting lateral photosensing performances in a P(VDF-TrFE)/Bi₂Se₃/Si heterojunction induced by surface modification and ferroelectric and pyroelectric effects

Qing Wang, Guojuan Zhang, Tao Zhang, Siyang Guo, Jihong Liu,* Shufang Wang and Shuang Qiao*

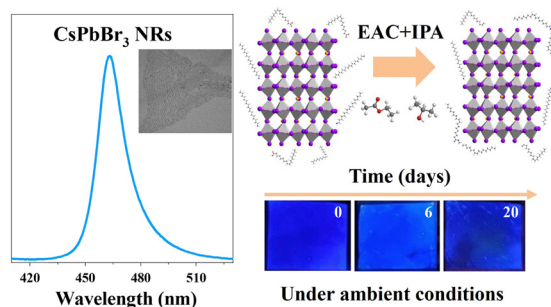


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Shape-controlled synthesis of CsPbBr₃ nanorods with bright pure blue emission and high stability

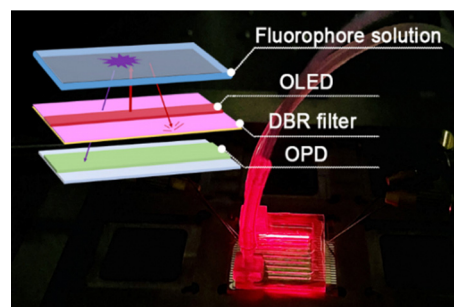
Qiqi Zhao, Feitong Chen, Qi Huang, Kaiyu Wang, Changqian Li, Rui Wang, Chenyang Liu, Wenli Xu, Rui Liu, Huiling Zhu, Kunhua Wang,* Tianliang Zhou* and Jianxu Ding*



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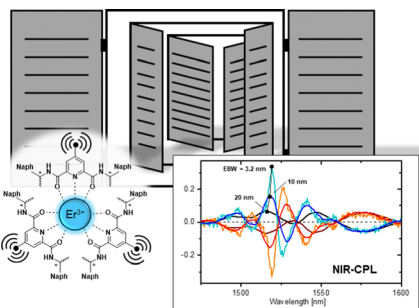
On-chip organic optoelectronic system for fluorescence detection

Emilia Benvenuti, Andrea Lanfranchi, Salvatore Moschetto, Marco Natali, Marco Angelini, Paola Lova, Federico Prescimone, Vincenzo Ragona, Davide Comoretto, Mario Prosa,* Margherita Bolognesi and Stefano Toffanin*



PAPERS

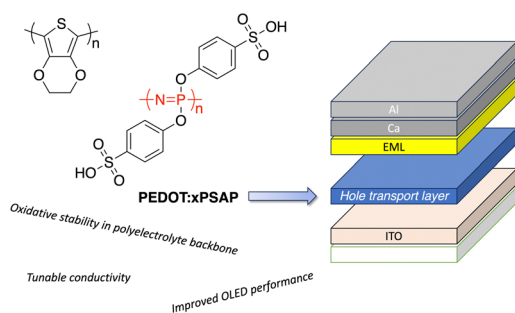
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Impact of the experimental bandwidth on circularly polarized luminescence measurements of lanthanide complexes: the case of erbium(III)

Annika Sickinger, Bruno Baguenard, Amina Bensalah-Ledoux, Yannick Guyot, Laure Guy, Fabrice Pointillart, Olivier Cador, Maxime Grasser, Boris Le Guennic, François Riobé, Olivier Maury* and Stéphan Guy*

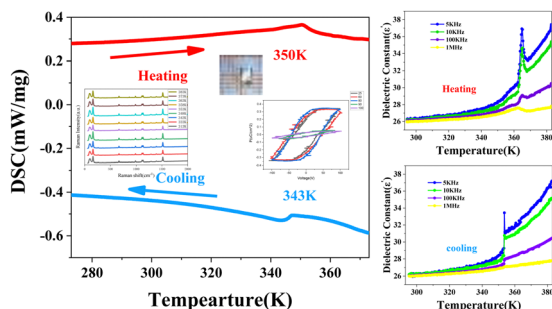
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Poly(3,4-ethylenedioxythiophene)/poly(bis(4-phenoxy-sulfonic acid)phosphazene) conductive composites: an alternative interfacial layer to PEDOT : PSS

Elif Büşra Çelebi, Joseph Cameron, Peter J. Skabara and Ferda Hacivelioglu*

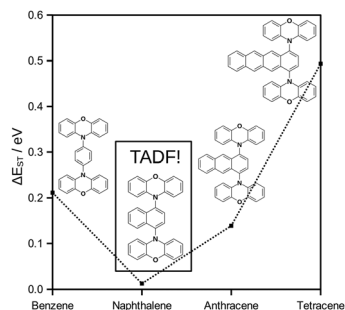
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A novel zero-dimensional organic–inorganic hybrid ferroelectric material

Dong Li, Xiaofan Sun, Shulin Jiao, Wentao Zhang, Yanzhou Lu, Min Zhao, Yizhang Wu, Hong-Ling Cai* and Xiaoshan Wu

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Evaluation of acenes as potential acceptors in thermally activated delayed fluorescence emitters and the promise of a phenoxazine–naphthalene emitter for OLEDs

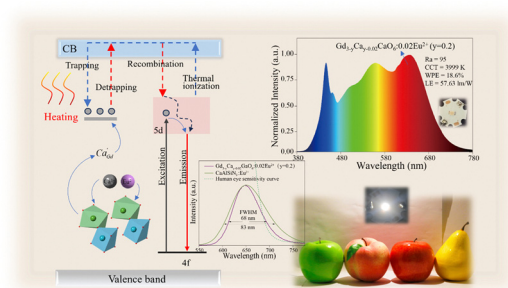
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Structure tailoring and defect engineering of a highly thermally stable red emitting phosphor

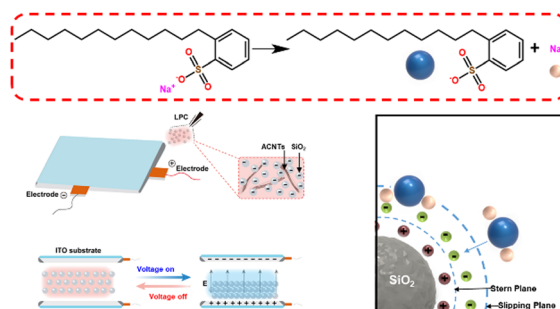
Xiaoxue Huo, Zhijun Wang,* Xue Meng, Jiawei Zhang, Yu Wang and Panlai Li*



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Fast, highly chromatic, electrically responsive photonic crystal inks for displays

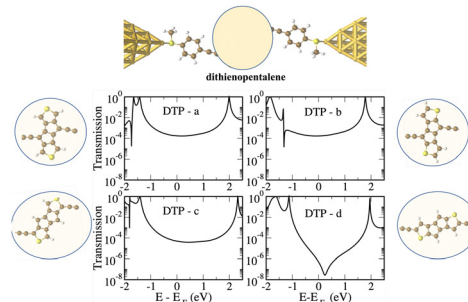
Dong Wang, Xiaohui Sun, Wei Wu, Mang Li, Xueying Zhao, Huiqi Ren, Bo Wang, Jingfang Li, Xuyang Zhang,* Guohua Wu* and Xiangwei Wang*



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Antiaromatic non-alternant heterocyclic compounds as molecular wires

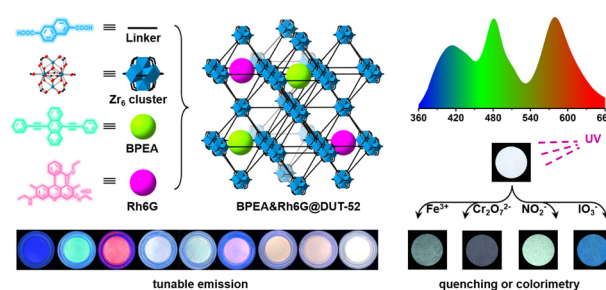
Edmund Leary,* Carlos Roldán-Piñero, Rocio Rico-Sánchez-Mateos and Linda A. Zotti*



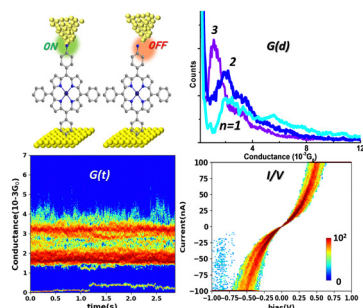
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Two dye-encapsulated triple-emitting naphthalene-based Zr-MOFs for tunable white-light emission and dual mode detection of inorganic ions

Yang Chen, Guang Yang, Xin Liu, Dashu Chen,* Hongzhu Xing and Liu Yang*



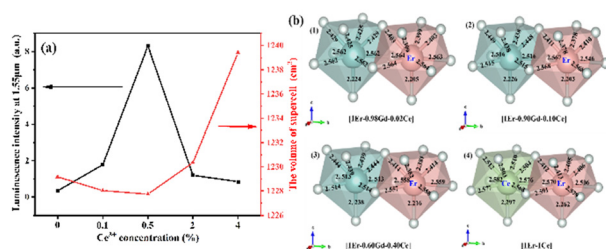
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Reliable I/V characteristics and long lifetime of porphyrin-based single-molecule junctions

Xinlei Yao, Maxime Vonesch, Lihao Guan, Jennifer Wytko, Jean Weiss, Xiaonan Sun* and Jean-Christophe Lacroix*

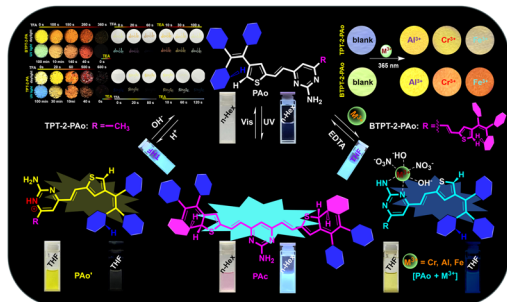
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Crystal growth, first-principles calculations, and enhanced 1.5–1.7 μm fluorescence emission from the Er, Ce: CaGdAlO_4 laser crystal

Lin Li, Huiyu Tan, Zhen Li, Peixiong Zhang* and Zhenqiang Chen*

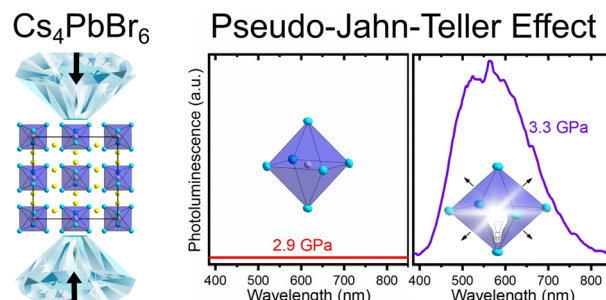
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Development of a multi-responsive fluorescence switch system based on a pyrimidine functionalized tetraarylethylene compound

Renjie Wang,* Shunyang Liu, Chunhong Zheng, Yanqun Mu, Mengyuan Li, Gang Li and Shouzhi Pu*

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White-light emission triggered by pseudo Jahn–Teller distortion at the pressure-induced phase transition in Cs_4PbBr_6

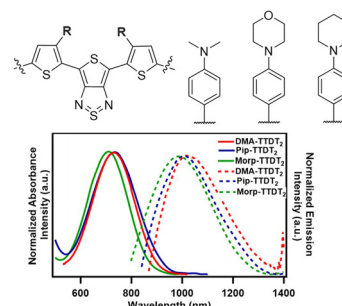
Viktoriia Drushliak, Konrad J. Kapcia and Marek Szafranski*



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NIR-II emissive donor–acceptor–donor fluorophores for dual fluorescence bioimaging and photothermal therapy applications

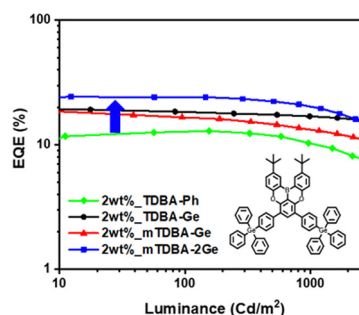
Nicholas E. Sparks, Cameron Smith, Terrence Stahl, Dhanush L. Amarasekara, Christine Hamadani, Ethan Lambert, Sheng Wei Tang, Anuja Kulkarni, Blaine M. Derbigny, Gaya S Dasanayake, George Taylor, Maryam Ghazala, Nathan I. Hammer, Alexander Y. Sokolov, Nicholas C. Fitzkee, Eden E. L. Tanner and Davita L. Watkins*



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Novel blue multiresonance thermally activated delayed fluorescence host materials, including Ge-based bulky groups

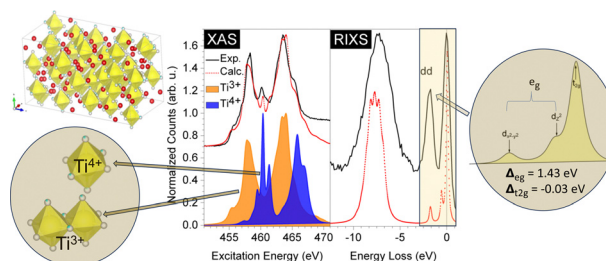
Sangwook Park, Hyukmin Kwon, Hayoon Lee, Kiho Lee, Seokwoo Kang, Ki Ju Kim, Taekyung Kim and Jongwook Park*



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Investigating the electronic properties of novel titanium oxonitridophosphate, $\text{Ti}_5\text{P}_{12}\text{N}_{24}\text{O}_2$, through structural distortions at the titanium sites

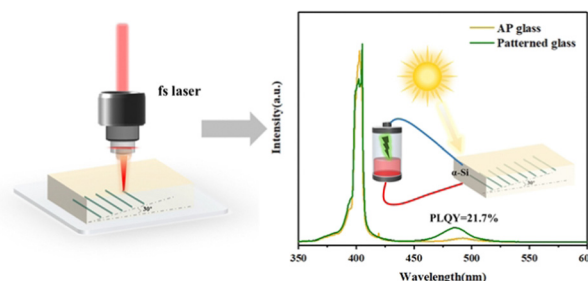
Peter Ufodu,* Teak D. Boyko, Monika M. Pointner, Lucien Eisenburger, Wolfgang Schnick and Alexander Moewes



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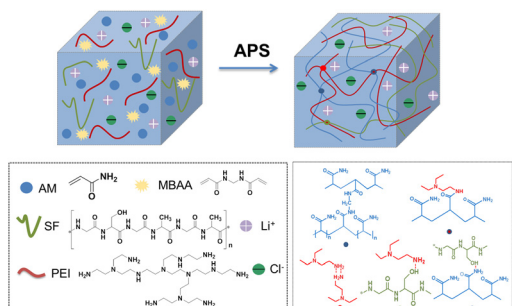
Highly efficient luminescent solar concentrators based on selective laser-induced crystallization in $\text{CsPbBr}_x\text{Cl}_{3-x}$ ($x = 0-3$) doped glass

Yahua Niu, Shengzhi Sun,* Chaoyue Yan, Chao Wang and Jianrong Qiu



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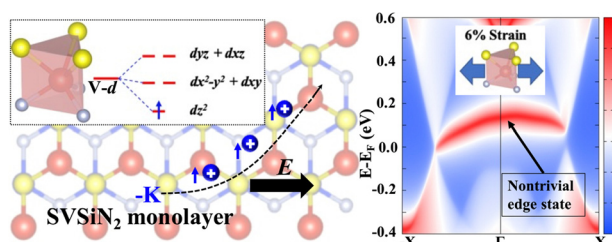
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Facile and fast preparation of stretchable, self-adhesive, moisturizing, antifreezing and conductive tough hydrogel for wearable strain sensors

Yanxia Chao, Ying Li, Huibin Wang, Nan Wang, Tao Wang,* Zhuangzhuang Chu, Zhuohong Yang* and Yang Hu*

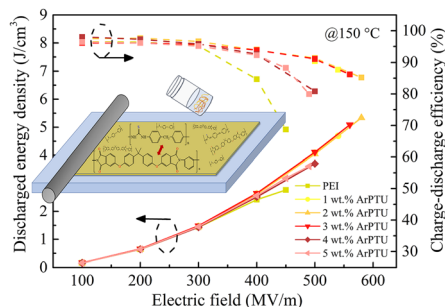
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Strain-induced tunable valley polarization and topological phase transition in SVSiN₂ monolayer

Yunxi Qi, Can Yao, Jun Zhao* and Hui Zeng*

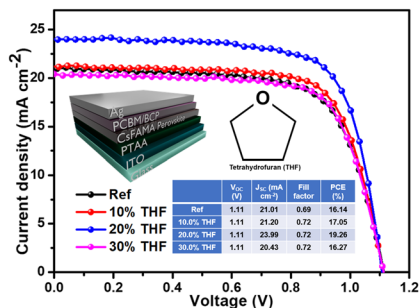
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All-organic ArPTU/PEI composite dielectric films with high-temperature resistance and high energy-storage density

Yonghao Zhang, Yan Guo, Yang Liu, Zhongqi Shi, Wenfeng Liu, Jinzhan Su, Guohua Chen and Di Zhou*

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A Lewis-base-based antisolvent method for fabricating triple-cation perovskite solar cells

Xuwen Liu and Eun-Cheol Lee*

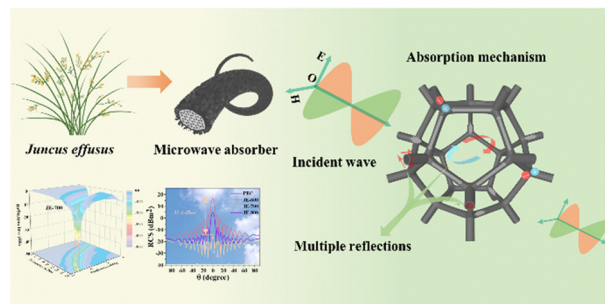


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Hierarchical porous carbon frameworks derived from *Juncus effusus* biomass with robust electromagnetic wave absorption properties

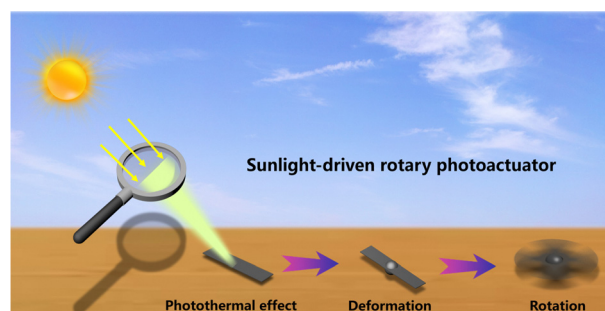
Yunshan Mao, Kaiyu Liu, Yuhao Sheng, Jian Liu, Shaohai Fu and Chunxia Tang*



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Light-driven rotary polypyrrole/agar composite films

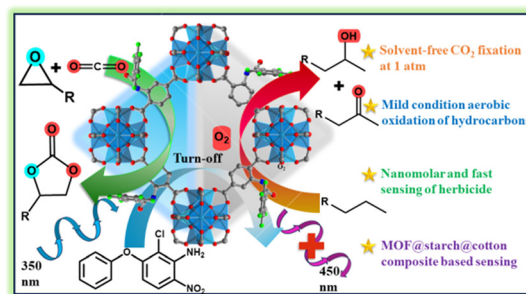
Dan Wang, Zhen Hou, Fengling Wang, Hui Zhang,* Jiwei Jiang* and Bin Dong*



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A superhydrophobic MOF facilitating efficient solvent-free catalytic chemical fixation of CO₂ and oxidation of hydrocarbons and MOF@cotton@starch composite-based selective sensing of a herbicide

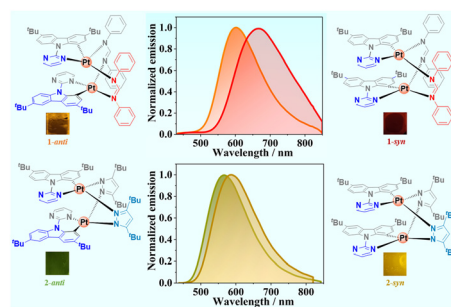
Subhrajyoti Ghosh, Srijan Mukherjee, Veerappan Karthik, Priti Bera, Amarajothi Dhakshinamoorthy* and Shyam Biswas*



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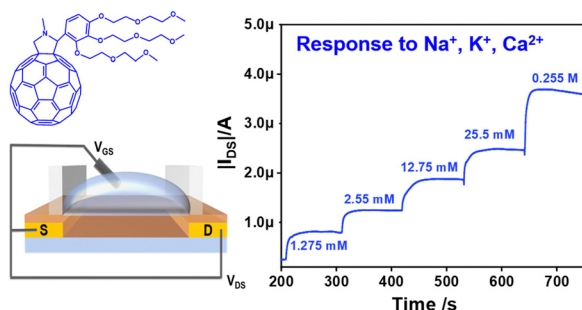
Synthesis of phosphorescent *syn*, *anti*-isomeric clamshell platinum(II) dimers for OLED applications

Haibo Yao, Lige Qiao, Lequn Yuan, Xueyin Luan, Yunjun Shen, Yuzhen Zhang,* Liang Zhou* and Hedong Bian*



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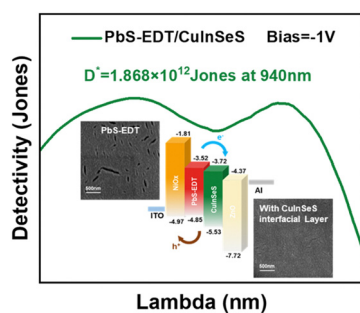
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Metal cation detection based on a stable n-channel accumulation organic electrochemical transistor

Cheng Shi, Xingyu Jiang, Qi Wang, Xinyu Dong, Chuan Xiang, Zi Wang, Lifeng Chi* and Lizhen Huang*

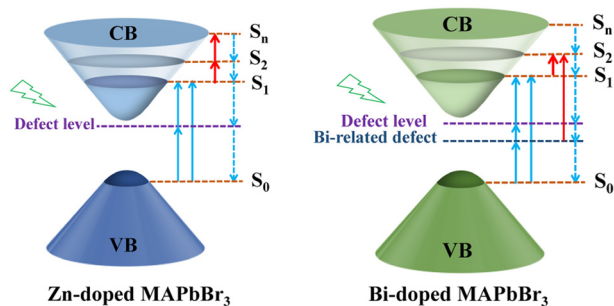
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Suppression of the dark current in PbS quantum dot infrared photodetectors through the introduction of a CuInSeS interfacial layer

Zuyan Chen, Tengzuo Huang, Bo Zhang, Chunyan Wu, Xuanyu Zhang, Tao Sun, Wei Xu, Kai Kang,* Chaoyu Xiang,* Ting Zhang* and Ruifeng Li*

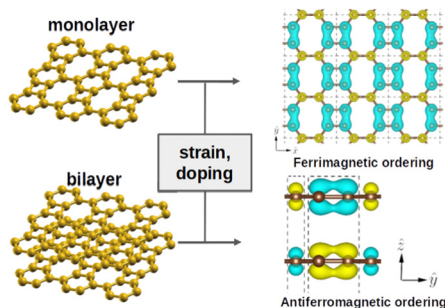
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Modulating the nonlinear optical properties of MAPbBr₃ by metal ion doping

Bingkun Chen, Qiuyun Ouyang,* Lin Chen, Hao Huang, Zijun Chen, Junjie Pan, Xuan Fang* and Bowen Zhang*

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Magnetic transitions of biphenylene network layers induced by external perturbations

Sejoong Kim



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Effect of Sn valence state in the *in situ* growth of FeOOH precursor on the performance of the α -Fe₂O₃ photoanode

Weiwei Xia,* Zichun Chai, Rui Zhang, Junhui He and Xianghua Zeng*

