

Journal of Materials Chemistry C

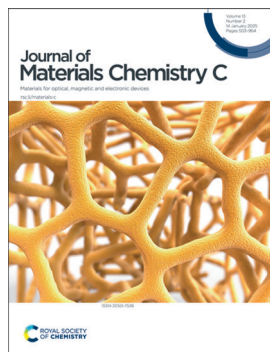
Materials for optical, magnetic and electronic devices

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Advanced functional inorganic materials for information technology and applications

Xuebin Wang,* Haibo Zeng* and Zhiguo Xia*

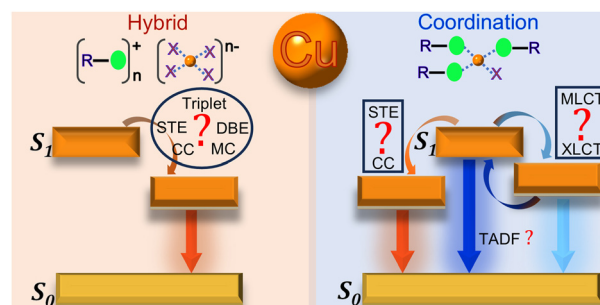


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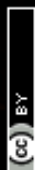
Dilruba A. Popy and Bayram Saparov*



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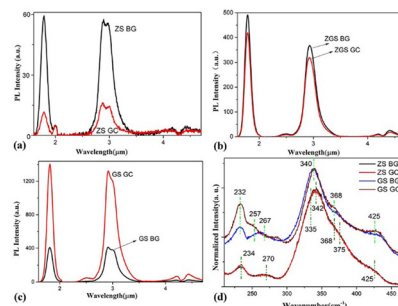
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Fundamental questions
Elemental answers

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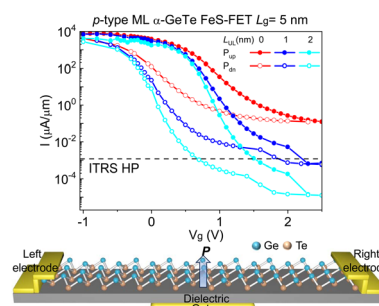
Yuan Gao, Yikang Jiang, Xiaosong Lu* and Zhiyong Yang*



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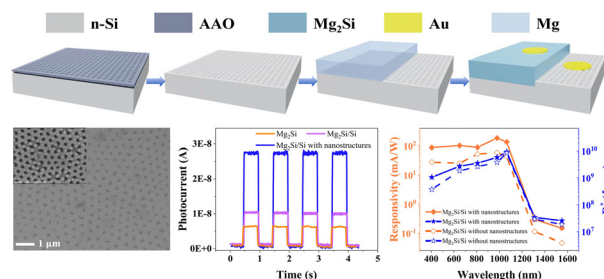
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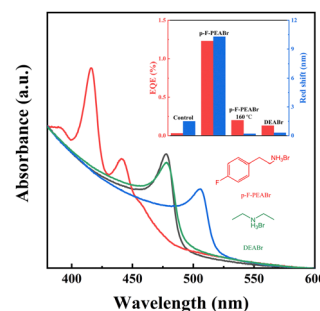
Hang Yu, Jun Gou,* Yanshuai Zhang, Xiutao Yang, Gaoyun Zhang, Lixin Liu, He Yu, Zhiming Wu and Jun Wang



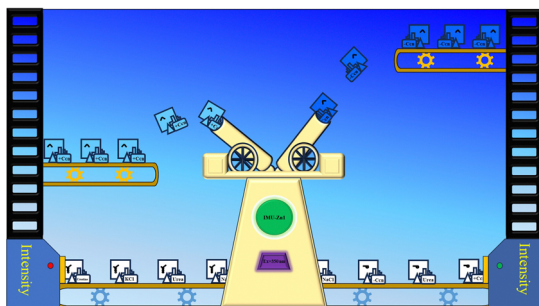
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Role of Br–Cl distribution uniformity on the spectral stability of blue emitting mixed-halide perovskites

Dan Chen, Yu Mao, Xianglan Huang, Jichen Zhao, Zhiyuan Zhang, Jian Wang* and Junbiao Peng



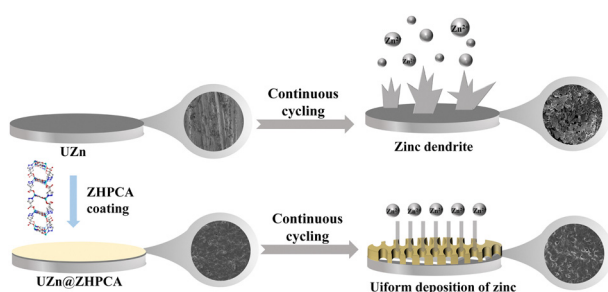
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The fluorescence distinction of chiral enantiomers: a Zn coordination polymer sensor for the detection of cinchonine and cinchonidine

Wenping Hu, Nan Wu, Dechao Li, Yefang Yang, Shaowen Qie, Shuai Su, Ruijie Xu, Wenting Li and Ming Hu*

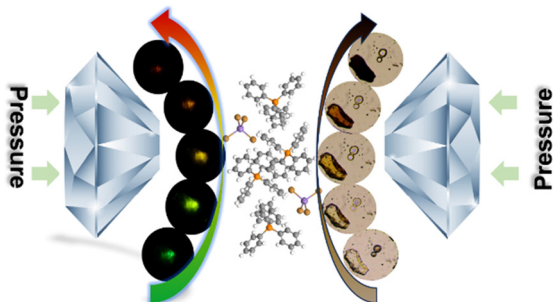
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Zincophilic MOF with N-functional groups for interfacial modification of stable aqueous zinc metal anodes

Na Sun, Han Yu, Xue Zhou, Xiuwen Si, Pengfei Wang, Zhe Gong,* Yaguang Sun* and Mingdong Zhou*

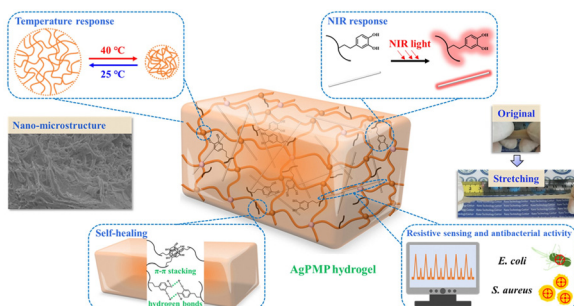
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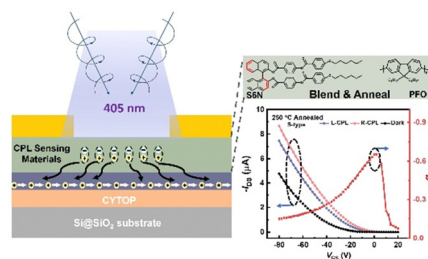
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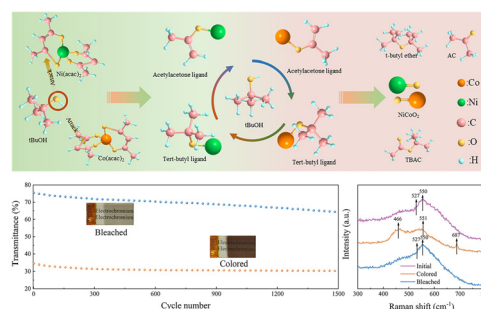
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Interlaced NiCoO₂ nanoparticle/nanosheet films for electrochromic energy storage devices with wide-band optical modulation and robust stability

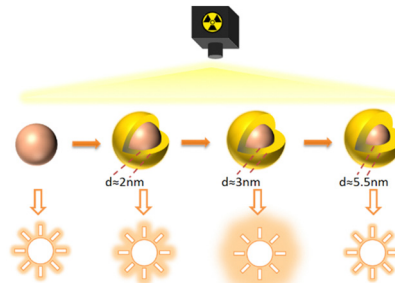
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Unveiling the mechanism behind shell thickness-dependent X-ray excited optical and persistent luminescence in lanthanide-doped core/shell nanoparticles

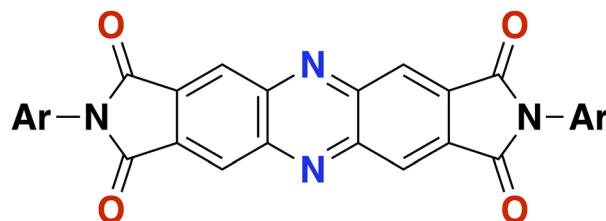
Zezen Liu, Jingtao Zhao, Danyang Shen, Lei Lei* and Shiqing Xu*



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Synthesis and electron-transporting properties of phenazine bisimides

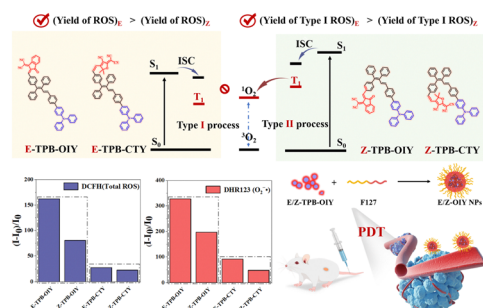
Keita Tajima, Taito Moribe, Kyohei Matsuo, Hiroko Yamada,* Shu Seki,* Seiya Yokokura, Toshihiro Shimada, Norihito Fukui* and Hiroshi Shinokubo*



Phenazine bisimide (PzBI)



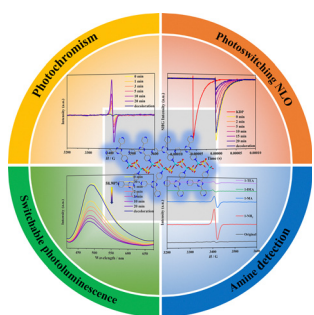
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An *E/Z* isomer strategy of photosensitizers with tunable generation processes of reactive oxygen species

Xiaochun Liu, Hairong Li, Hui Tang, Ning Ma, Shiyu Wu, Wenbo Dai, Yahui Zhang* and Xiaoqi Yu

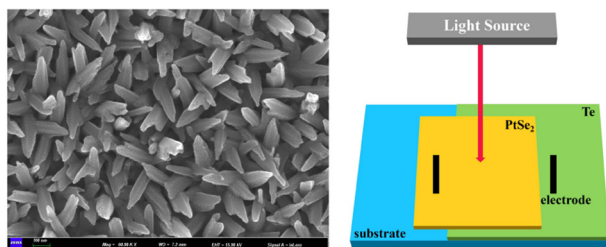
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Stimulus-responsive multifunctions in a zinc(II) sulfate complex: photochromism, photoswitching nonlinear optical properties, amine detection and visual film application

Shuai Liang, Shi-Kun Yan, Yu-Xuan Wen, Yan-Rui Zhao, Jin Zhang and Ji-Xiang Hu*

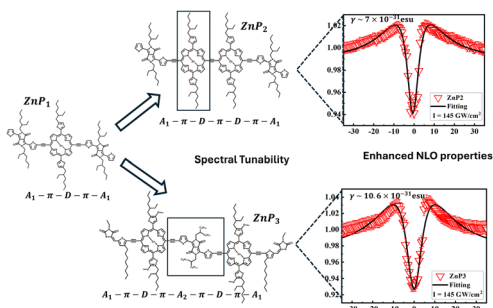
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Design of a self-powered 2D Te/PtSe₂ heterojunction for room-temperature NIR detection

Fengtian Xia, Dongbo Wang,* Wen He,* Xiangqun Chen,* Chenchen Zhao, Bingke Zhang, Donghao Liu, Sihang Liu, Jingwen Pan, Shujie Jiao, Dan Fang,* Xuan Fang,* Lihua Liu* and Liancheng Zhao*

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Influence of a diketopyrrolopyrrole spacer on the ultrafast nonlinear optical properties and excited state dynamics of dimeric zinc porphyrin molecules

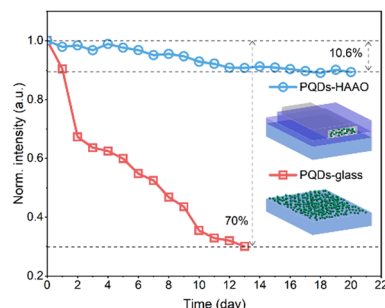
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Stabilizing perovskite quantum dot oxygen sensors through ultra-long 2 mm horizontally aligned nanopores in anodic alumina oxide templates

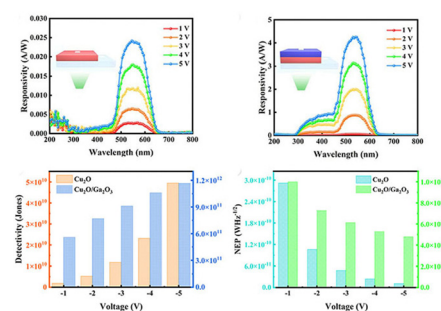
Johan Iskandar, Chih-Yi Liu,* Chih-Chien Lee, Kuan-Yu Ke, M. Rivaldi Ali Septian, Richie Estrada, Humaidi Humaidi, Sajal Biring,* Cheng-Shane Chu, Zong-Liang Tseng* and Shun-Wei Liu*



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Cu₂O/Ga₂O₃ pn-junction photodetector with low dark current and high detectivity

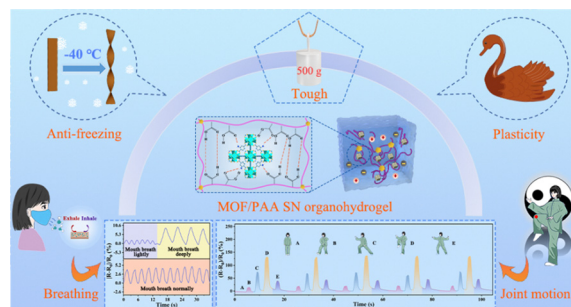
Mingyang Li, Dayong Jiang* and Man Zhao*



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A metal–organic framework enhanced single network organohydrogel with superior low-temperature adaptability and UV-blocking capability towards human-motion sensing

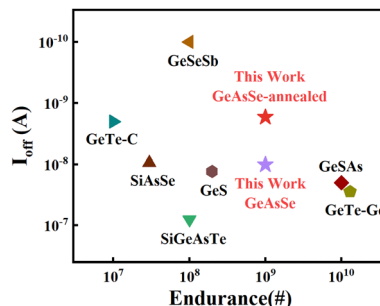
Ying Li, Zhongquan Yu, Jialuo Zhang, Enke Feng,* Xiaoqin Li, Linan Cao,* Zhiming Yang and Zhiqiang Wu*



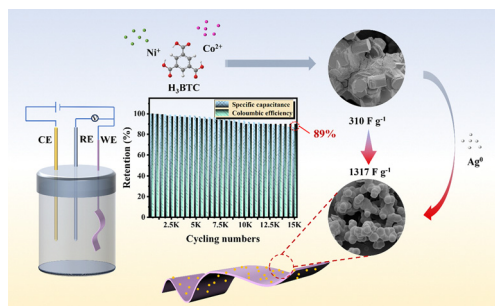
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Modulation of GeSe and As₂Se₃ motifs to optimise GeAsSe OTS performance and its mechanism

Yukun Li, Haotian Wang, Mingyue Shao, Yuhao Wang, Sannian Song,* Yuan Xue* and Zhitang Song



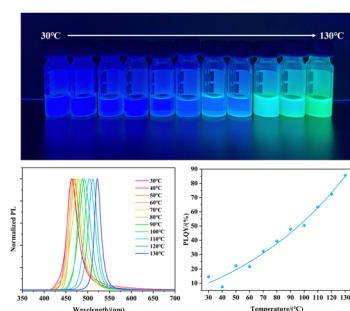
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Silver-incorporated NiCo metal–organic frameworks with controlled morphology for enhanced cycling in flexible supercapacitor applications

Chu Chu, Wenjing Zhang, Xuehua Yan,* Yingnan Yan, Jianmei Pan, Zohreh Shahnava and Jamile Mohammadi Moradian

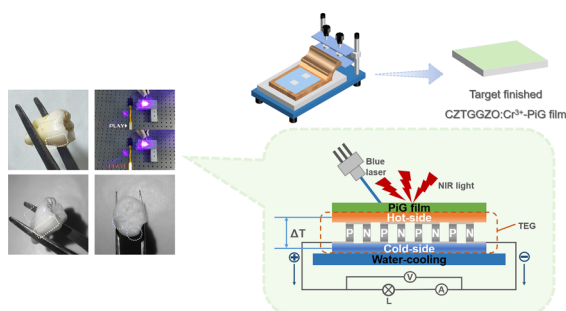
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Microfluidic synthesis of monodispersed sharp emitting perovskite CsPbBr₃ quantum dots via multidimensional parameterization

Yunhao Ning, Shuo Guan, Chuantong Cheng,* Bao Zhang,* Bingyu Qin and Beiju Huang

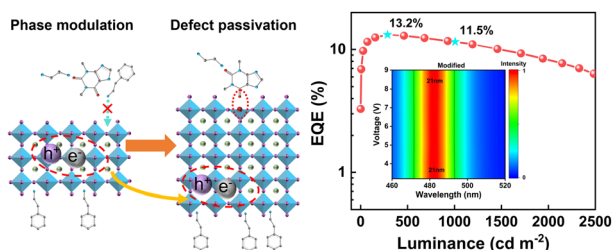
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Laser-pumped high-power compact near-infrared light sources based on phosphor-in-glass films

Xue Meng, Zhijun Wang,* Xiaoxue Huo, Mingxin Zhou, Yu Wang and Panlai Li*

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Modification of mixed-halide quasi-2D perovskites by aminophylline towards efficient and spectrally stable blue light-emitting diodes with low efficiency roll-off

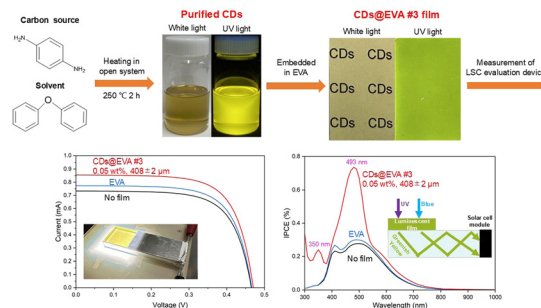
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Greenish yellow-emitting carbon dot-based films for luminescent solar concentrator applications

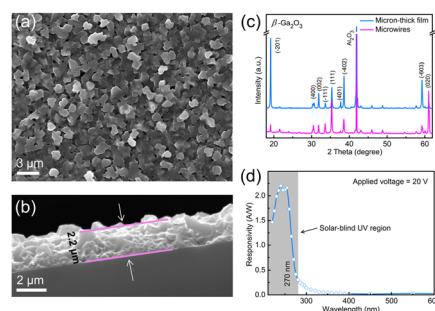
Yunxiang Liu, Yoshiki Iso* and Tetsuhiko Isobe*



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High-performance solar-blind imaging photodetectors based on micrometer-thick β -Ga₂O₃ films grown by thermal oxidation of gallium

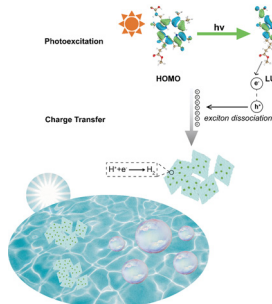
Haitao Zhou, Hongbin Wang, Jiangang Ma,* Bingsheng Li, Haiyang Xu and Yichun Liu



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Synergistic bio-inspired photocatalytic hydrogen production by chlorophyll derivative sensitized Nb₂CT_x MXene nanosheets

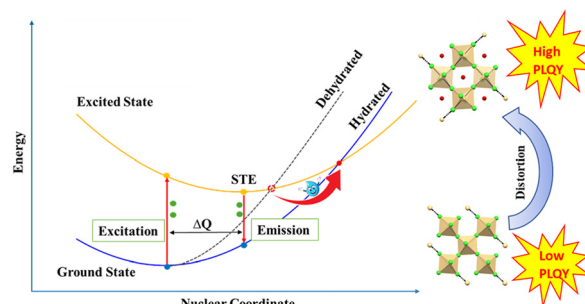
Tianfang Zheng, Lin Yang,* Hai Xu, Aijun Li, Shin-ichi Sasaki and Xiao-Feng Wang*



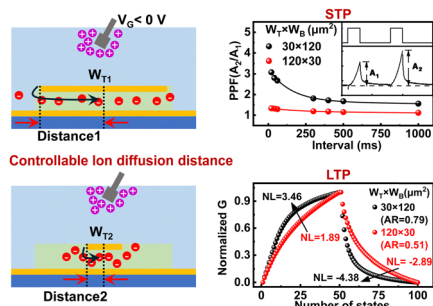
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Unravelling the structure–luminescence relationship in two dimensional antimony(III)-doped cadmium(II) halide hybrids

Ashwath Kudlu, Dhritismita Sarma, Deep Kumar Das, Alisha Basheer Shamlu, Rangarajan Bakthavatsalam, Venkatesha R. Hathwar, Arup Mahata* and Janardan Kundu*



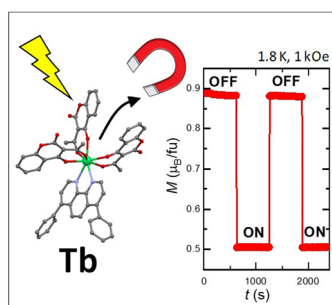
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Plasticity tunable artificial synapses based on organic electrochemical transistors with aqueous electrolytes

Ruhua Wu, Miao Xie, Yuhua Cheng, Dan Zhao,*
Liang-Wen Feng,* Jianhua Chen* and Wei Huang*

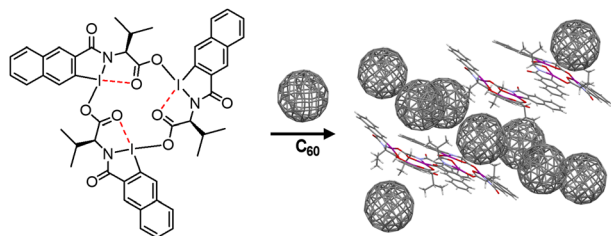
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Light-induced magnetic switching in a coumarin-based Tb single molecule magnet

Elena Bartolomé,* Ana Arauzo,* Javier Luzón and
Laura Gasque

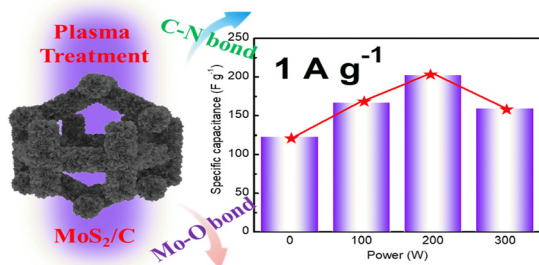
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Pi-extended hypervalent iodine macrocycles and their supramolecular assembly with Buckminsterfullerene

Krishna Pandey, Samsul Arafin, Grayson Venus, Eli Jones,
Yachu Du, Mina Dumre Pandey, Tahir Awais,
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Citric acid and plasma treated MoS₂ for high-performance supercapacitors

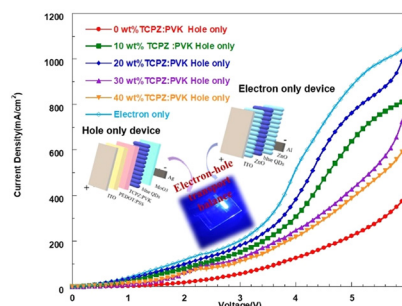
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Enhancing performance in blue quantum-dot light-emitting diodes by using a deep HOMO carbazol-phenyl-triazine small molecule blended hole transporting layer

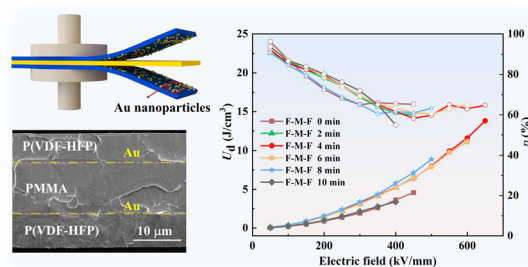
Yuyu Liu, Minming Yan,* Fan He, Weina Zhang, Yunwei Wang, Ziyu Qin, Kai Zhang, Ye Chen and Yong Zhang*



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Ultra-low loadings of gold nanoparticles significantly boost capacitive energy storage of multilayer polymer composites

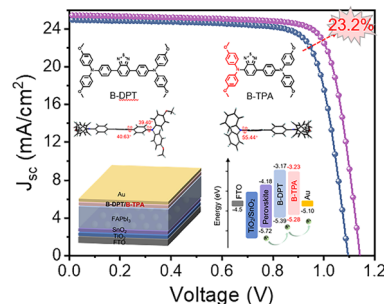
Yihui Qian, Houmeng Du, Li Lei, Shuimiao Xia, Yuchao Li, Davoud Dastan and Zhicheng Shi*



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Enhanced performance of perovskite solar cells via construction of benzothiadiazole-based hole transport materials utilizing an asymmetric strategy

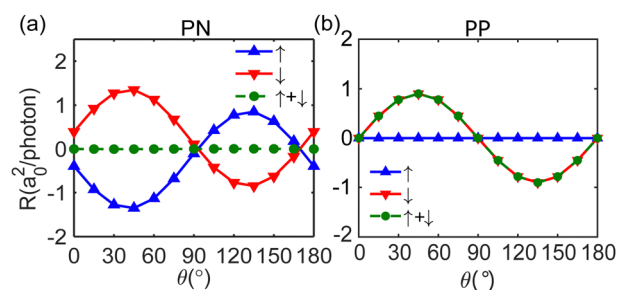
Yawei Miao,* Tingting Xue, Xue Zhou, Shaoyun Jia and Chuantao Gu*



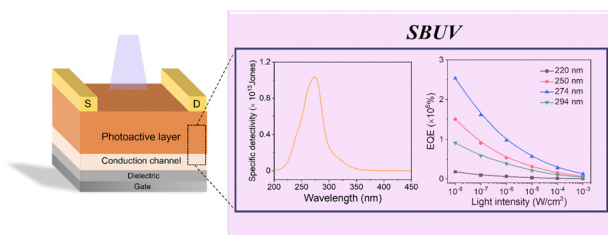
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Gate controllable fully spin-polarized and pure spin current in γ -graphyne nanoribbons

Liwen Zhang,* Yanjing Hao, Yaqing Yang, Jun Chen and Lei Zhang*



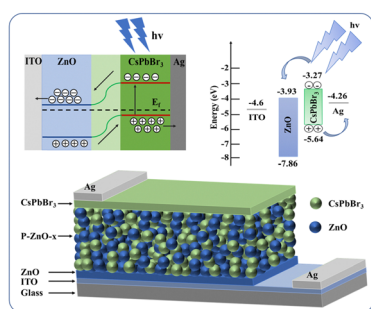
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An ultrasensitive narrowband organic phototransistor for solar-blind ultraviolet detection and imaging

Jianing Wang, Yuanhong Gao, Minming Yan, Xiwei Zheng, Meili Xu, Hong Chen, Lingqiang Meng,* Wei Huang* and Hong Meng*

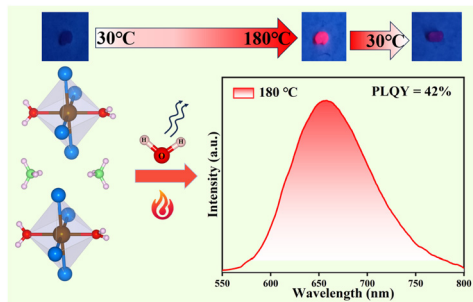
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A high-performance photodetector based on a ZnO/CsPbBr₃ quantum-dot-level-contact hybrid sandwich structure

Song Wang, Shuhua Yang,* Zenglong Xu, Huiyan Xu, Guangbin Duan, Degang Zhao, Xiutong Wang and Bingqiang Cao*

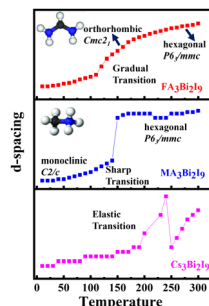
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Thermally induced reversible phase transition and photoluminescence switching behavior of (NH₄)₂MnBr₄(H₂O)₂ crystals

Guanfeng Liu, Yaoyu Liu, Zongshuai Ji, Tianyu Wang, Shuai Zhang, Bing Teng* and Shaohua Ji*

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Unraveling low-temperature structural and dielectric characteristics in lead-free bismuth halide perovskites

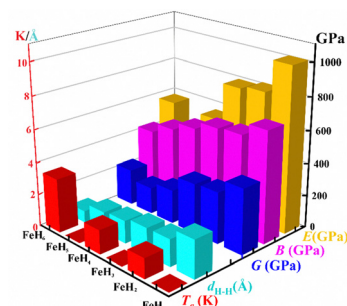
Naveen Kumar Tailor, Rohit Kumar Rohj, Krishanu Dey, Samuel D. Stranks, D. D. Sarma and Soumitra Satapathi*



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Electronic, phononic, and superconducting properties of FeH_x ($x = 1-6$) at 150 GPa

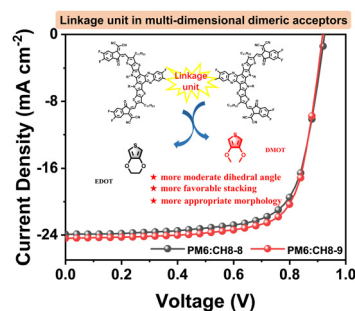
Hao Quan, Shi-Na Li,* Yu-Lin Han,* Jian-Guo Si, Wen-Xue Zhang, Wei-Dong Li and Bao-Tian Wang*



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Investigation of 3,4-ethylenedioxythiophene and 3,4-dimethoxythiophene as linkage units for multi-dimensional dimeric acceptors

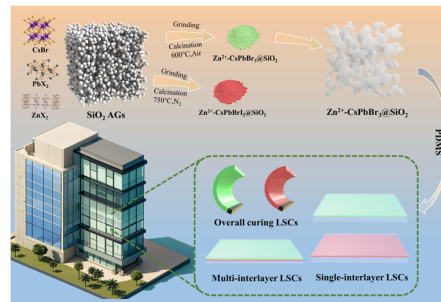
Shaohui Yuan, Baofa Lan, Xinyi Ji,* Jiaying Wang, Wenkai Zhao, Guankui Long, Xiangjian Wan, Bin Kan* and Yongsheng Chen



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Highly efficient, ultra-stable multi-interlayer luminescent solar concentrators based on green and red-emitting perovskite nanocrystal composites

Changwen Li, Yuxin Gao, Zhiqiang Ren, Shoujun Xiong, Changwei Li, Jun Wu,* Jinhua Li, Xianbao Wang* and Jianying Wang*



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Influence of shape on crystal structure and optical properties of heterocyclic conjugated molecules

Elisa Guzmán, Yu Yan, Peter Müller and Justin Amengual, Mu-Ping Nieh and Samuel W. Thomas III*

