

Journal of Materials Chemistry C

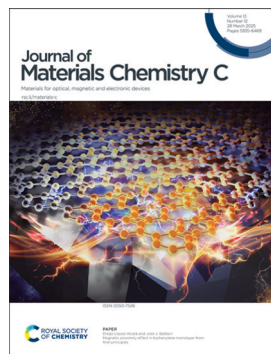
Materials for optical, magnetic and electronic devices

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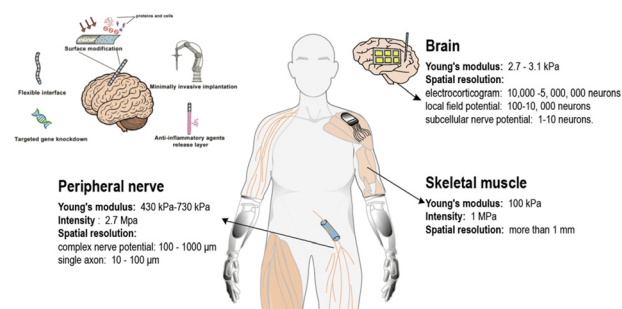
See Diego López-Alcalá and José J. Baldoví, pp. 5993–5999.
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REVIEW

5951

Long-term implantable flexible neural interfaces for electrophysiological monitoring

Botian Chen, Jiacheng Lu, Zilan Chen, Xu Han, Yifei Sun, Xinjing Lin, Zhenxuan Tang, Shuping Jia, Guohua Xie,* Fengwei Huo* and Ruijie Xie*

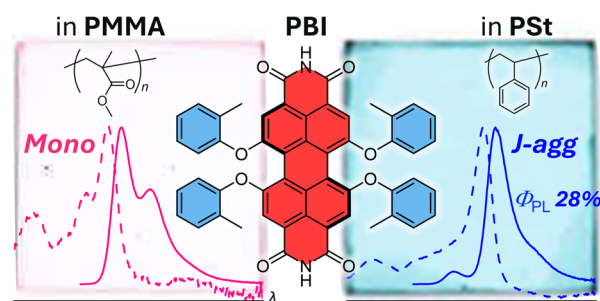


COMMUNICATIONS

5981

Perylene bisimide J-aggregates in a polymer matrix: controlling self-assembly and fluorescence properties

Rikuto Kanno, Matthias Stolte, Vladimir Stepanenko, Ann-Christin Pöppler, Takaya Terashima and Frank Würthner*



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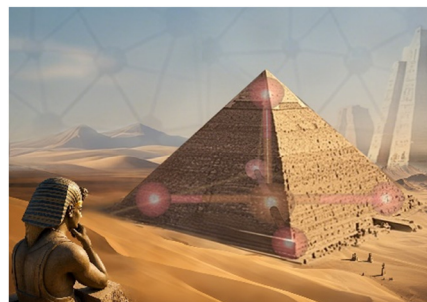
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COMMUNICATIONS

5988

Linking the pyramid distortion to luminescence in Sb-based metal halide by best fitted ideal polyhedron characterization

Yunfeng Fang, Yuchen Zhang, Leopoldo Suescun, Mingyue Chen, Zhen Song* and Quanlin Liu*

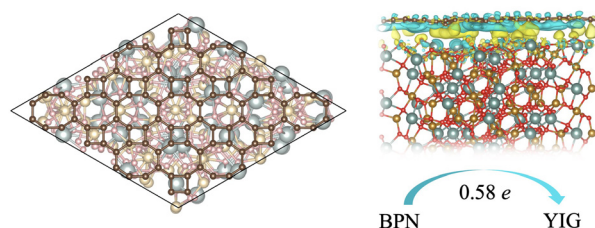


PAPERS

5993

Magnetic proximity effect in biphenylene monolayer from first-principles

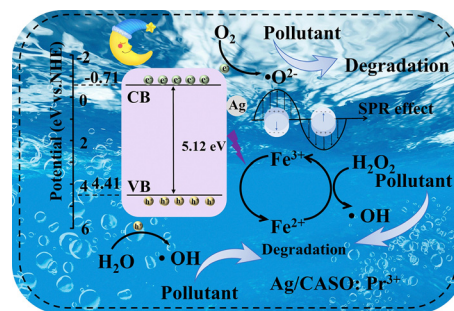
Diego López-Alcalá and José J. Baldoví*



6000

Enhanced photodegradation performance based on the surface plasmon resonance effect of Ag/Ca₂Al₂SiO₇:Pr³⁺ ultraviolet long afterglow driven in a photo-Fenton system

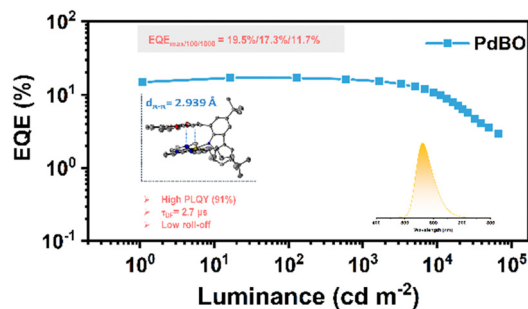
Xiaoxuan Fan, Yonggui Zheng, Zimin Yao, Pingping Liang, Xuemei Lu, Jianbo Xu, Baijie Guan, Tianya Tan, Shuo Cao, Yang Zhao, Kexin Wang,* Feifei Yin* and Jiwei Wang*



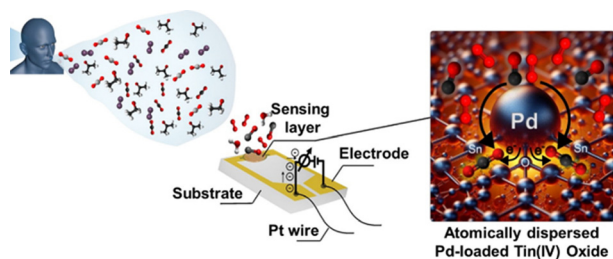
6012

Strongly yellow photo- and electroluminescent palladium(II) complexes via metal-assisted thermally activated delayed fluorescence

Yi Zhang, Xintong Wan, Qizheng Zhang, Jingling Zhang, Li Jiang, Nengquan Li, Jingsheng Miao and Kai Li*



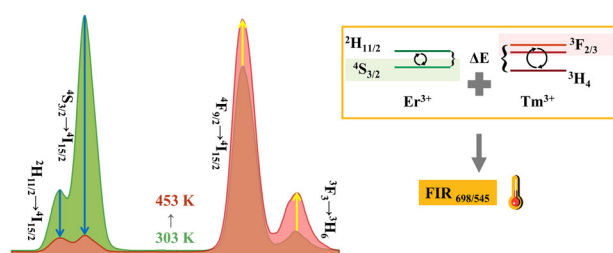
6020



Synergistic effects of Pd single atoms and nanoclusters boosting SnO₂ gas sensing performance

Yaprak Ozbakir, Yong Xia, Aifei Pan, Jiyun Hong, Jorge E. Perez-Aguilar, Simon R. Bare, Francesca Rossi, Rohan Dhall, Afnan Ali Alghannam, Nishit Goel, Stephen Bart, Carlo Carraro and Roya Maboudian*

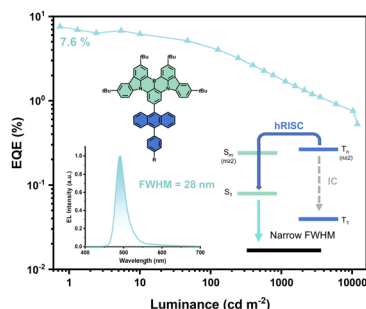
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Er³⁺-sensitized upconversion emission of Tm³⁺ via Yb³⁺-mediated energy migration for nanothermometry

Rui Liu, Yao Cheng,* Hang Lin, Ju Xu and Yuan-sheng Wang

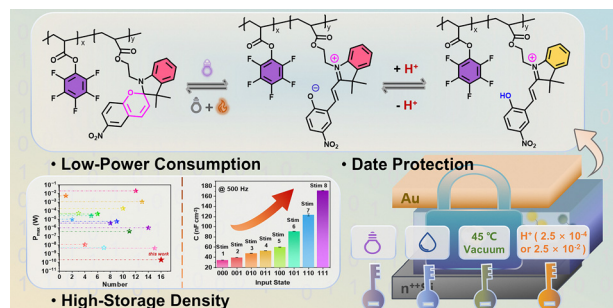
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Boron–nitrogen framework substituted anthracenes as “hot exciton” fluorophores for efficient sky-blue narrowband emissive OLEDs with full-width at half-maximum below 30 nm

Jieying Lin, Ruicheng Wang, Dehua Hu,* Ziquan Lu, Yueyan Zhang, Zecong Ye,* Yanping Huo and Shaomin Ji*

6052



Non-volatile capacitive memory based on spiropyran-derived copolymers for multi-level and ultralow-power data storage and protection

Rumeng Yang, Chuang Zhang, Xiaocheng Zhang, Jie Liu, Chia-Chih Chang, Xiaosong Wu, Ruiduan Ji, Huifen Zhu, Donghui Wang, Shiyu Feng* and Weiguo Huang*

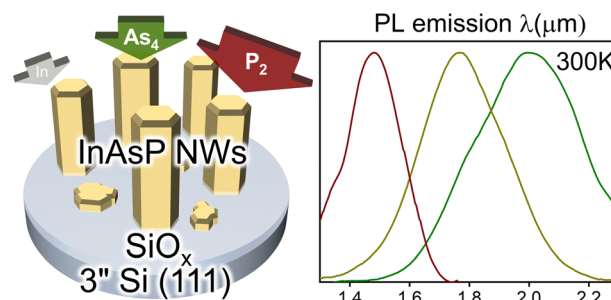


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Self-induced MBE-grown InAsP nanowires on Si wafers for SWIR applications

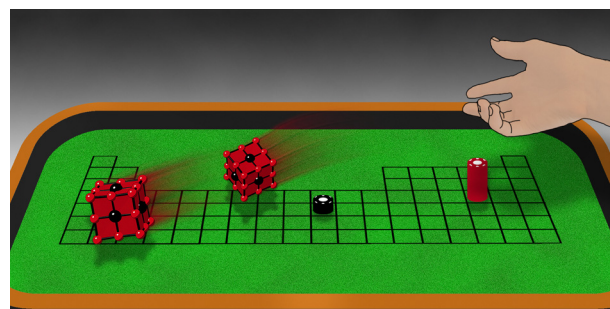
Andrey K. Kaveev, Vladimir V. Fedorov,*
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6073

Pd₃Se₁₀: a semiconducting cluster-based material

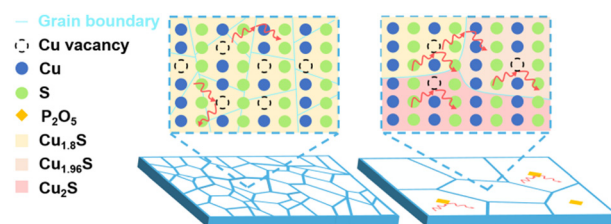
Cullen T. Irvine, Chenguang Wang, Bowen Yu,
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 Joshua E. Goldberger*



6085

Enhanced thermoelectric and mechanical properties of Cu_{1.8}S_{1-x}P_x bulks mediated by mixed phase engineering

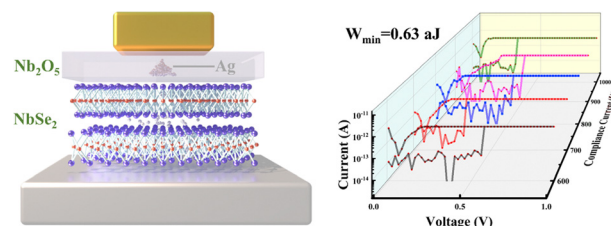
Xi Yan, Qin-Yuan Huang, Tian-Yu Yang, Ding-Yi Yu,
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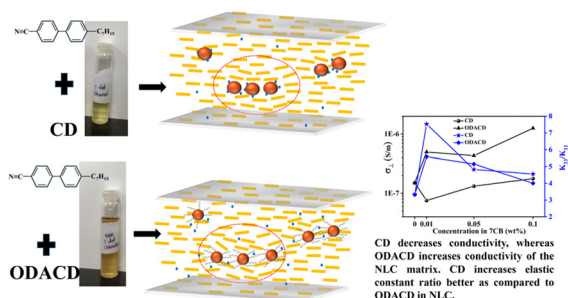
6095

Natively oxidized 2D NbSe₂ enables ultralow-power electrical switching

Changying Xiong, Feiyu Tang, Meng Xu, Jiahao Shen,
 Yi Li, Kan-Hao Xue, Ming Xu* and Xiangshui Miao



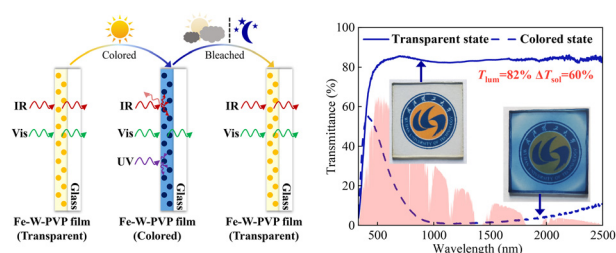
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Tuning liquid crystal properties with 0D carbon dots: exploring the impact of functionalization of carbon dots

Shweta Mishra, Parsoon Pareek, Ishaan Sarma, V. Manjuladevi,* Raj K. Gupta and Rahul Singhal

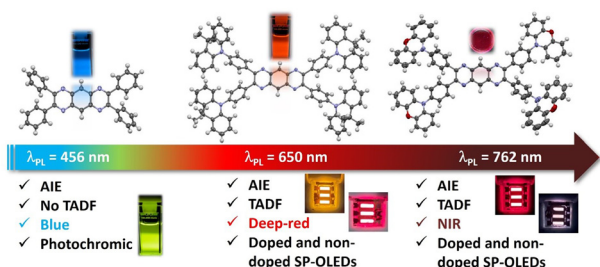
6115



Transparent photochromic Fe-doped $\text{W}_{18}\text{O}_{49}$ films with ultrahigh solar energy modulation for smart windows

Yongkang Zhu, Bin Li, Chenxu Li and Shouqin Tian*

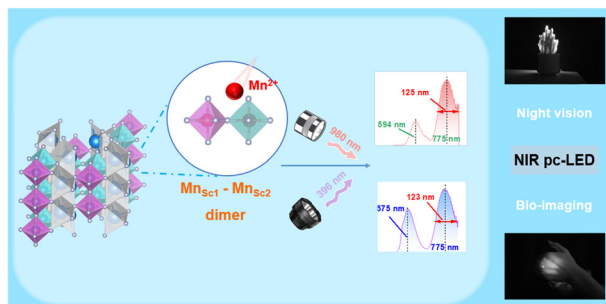
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Deep-red to NIR solution-processed OLEDs of donor-decorated quinoxaline-based TADF aggregates

Abhishek Kumar Gupta,* David B. Cordes, Joydip De, Alexandra M. Z. Slawin, Stuart Warriner, Ifor D. W. Samuel* and Eli Zysman-Colman*

6136



Anomalous near-infrared emission and the underlying "structure-luminescence" correlation in the multi-peak emission system of $\text{KScF}_4:\text{Yb}^{3+}, \text{Mn}^{2+}$

Xinyi Wang, Xinxin Han,* Ni Zhang, Lingyi Wang, Hengjuan Deng, Sheng Cao, Jialong Zhao and Bingsuo Zou*

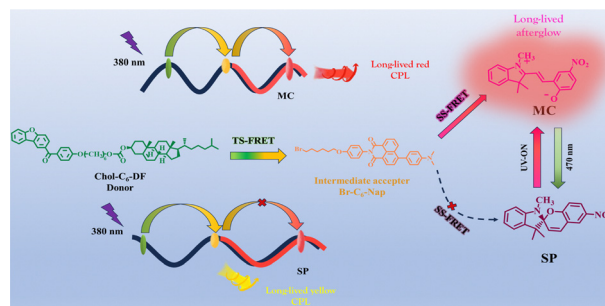


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Photoresponsive circularly polarized long-lived fluorescence in chiral liquid crystals *via* tunable stepwise energy transfer

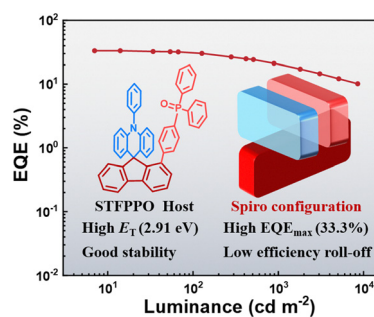
Xincan Wang, Jiani Wang, Sha Huang, Yongjie Yuan* and Hailiang Zhang*



6156

C1-substituted bipolar spiro host for high-performance organic light-emitting diodes

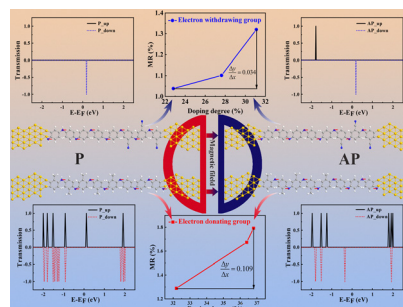
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6162

Effect of charge distribution at nitrogen atoms of polyaniline copolymers on spin-dependent transport: experimental analysis and density functional theory calculations

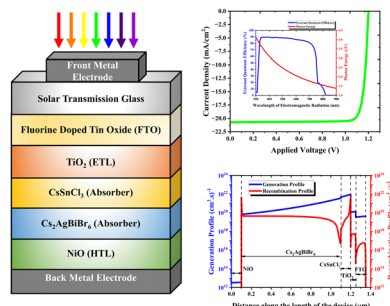
Jingyue Chen, Wenhao Xie, Lu Qin, Ming Yang* and Hongbo Gu*



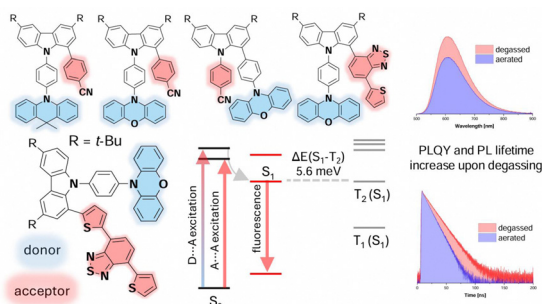
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Advanced numerical modeling of multi-absorber Cs₂AgBiBr₆/CsSnCl₃ solar cells: unveiling charge dynamics, trap phenomena, and noise characterization of high-efficiency photovoltaics

Devansh Gahlawat, Jaspinder Kaur,* Rikmantra Basu, Ajay Kumar Sharma, Sidhanth Garg, Manisha Bharti, Jaya Madan* and Rahul Pandey*



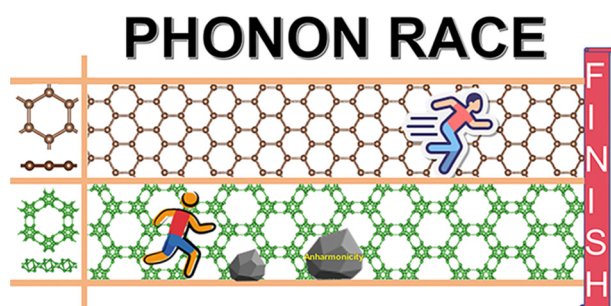
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Intramolecular through-space *versus* through-bond charge transfer in new donor-carbazole-acceptor type luminophores

Jakub Drapala, Anna Sadocha, Michał K. Cyrański, Malgorzata Zagorska, Adam Pron* and Irena Kulszewicz-Bajer*

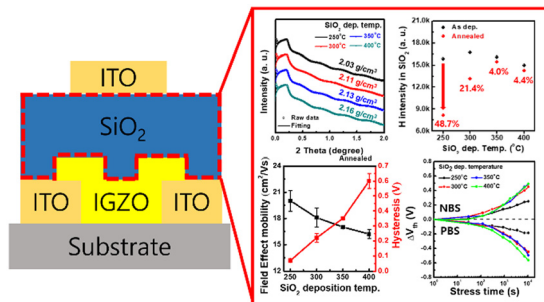
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Reduced lattice thermal conductivity and strong four-phonon scattering in *h*-B₁₂ assembled from boron clusters on a honeycomb lattice

Ting Zhang, Yu-Run Yang, Xu Liu, Jing Wang,* Zhao Liu* and Ying Liu

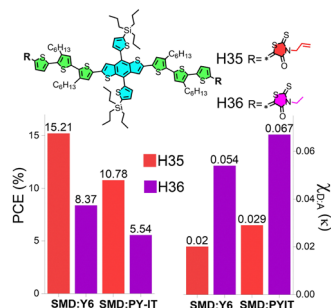
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Impact of hydrogen-controlled thermal ALD SiO₂ insulators on IGZO channel FETs to optimize the electrical performance

Su-Hwan Choi, Dong-Gyu Kim, Jae-Hyeok Kwag, Ki-Cheol Song, Yeonhee Lee, Chang-Kyun Park and Jin-Seong Park*

6224



Allyl-terminated small molecule donors effectively regulate miscibility to improve the performance of organic solar cells

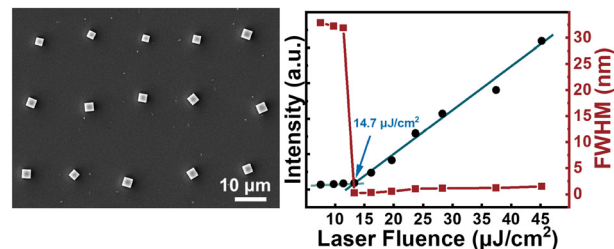
Jiaxin Dai, Panpan Zhang, Bo Du, Mengyuan Ma, Shangrong Wu, Yuchuan Tian, Junyu Li,* Haijun Bin* and Yongfang Li



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Self-assembly of size-controlled perovskite crystallite arrays on modulated substrates for laser applications

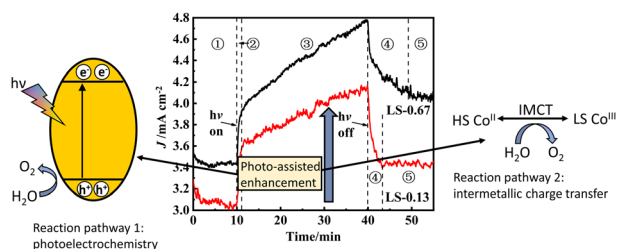
Bin Liu, Junhan Guo, Hanying Zhang, Yang Tang, Liang Qin,* Zhidong Lou, Yufeng Hu, Feng Teng and Yanbing Hou*



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The role and evolutionary pathway of spin states in CoFe Prussian blue analogues for photo-assisted water oxidation electrocatalysis

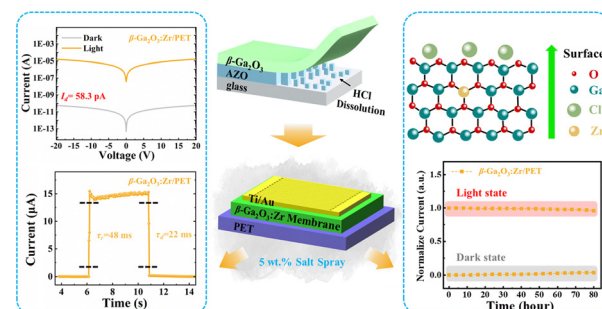
Dujie Feng, Yi Zhou,* Wanhong He,* Jin Zhang, Guihua Huang and Yiming Shao



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Zr-doping-assisted wet etching for non-destructive transfer of β -Ga₂O₃ films to fabricate high-performance wearable ultraviolet photodetectors

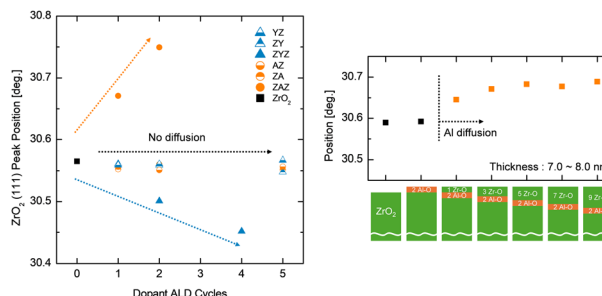
Jiangyiming Jiang, Simeng Wu, Zijian Ding, Qian Xin* and Yun Tian*



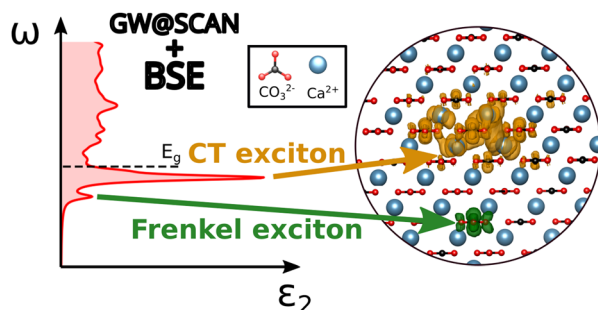
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Non-diffusive behavior of aluminum and yttrium dopants in ZrO₂/Al₂O₃ and ZrO₂/Y₂O₃ bilayer thin films

Haengha Seo, Jonghoon Shin, Han Sol Park, Tae Kyun Kim, Heewon Paik, Haewon Song and Cheol Seong Hwang*

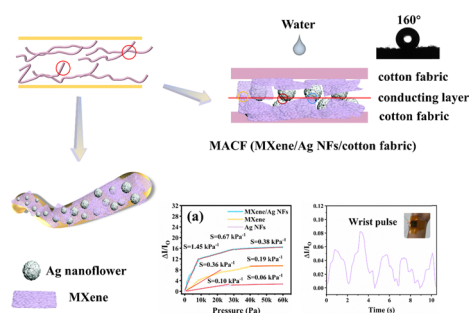


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Optical and excitonic properties of calcite CaCO_3

Jozef Janovec,* Jorge S. Dolado and Andrés Ayuela*

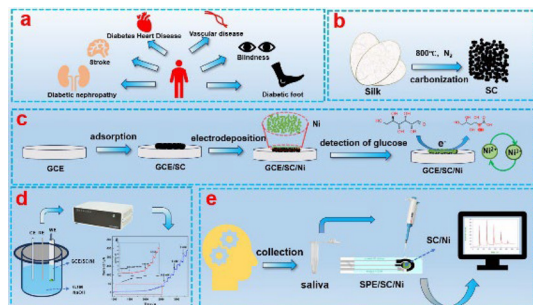
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A cost-effective and high-sensitivity pressure sensor for wearable electronics using an MXene/Ag NFs-coated cotton fabric

Yuan Fang, Lijun Zeng, Doudou Li, Yunfeng Su, Nairu He* and Hengzhong Fan*

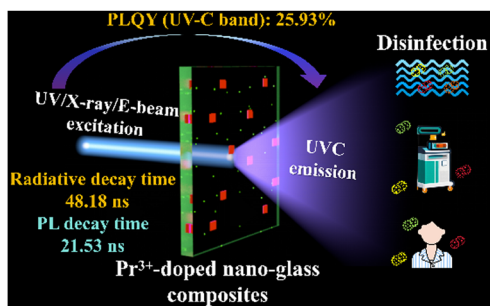
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Electrodeposited Ni on a silk-derived carbon modified glassy carbon electrode for non-invasive sensing of glucose in saliva

Hongteng Zhang, Jingwen Yin, Yue Wang,* Yasushi Hasebe and Zhiqiang Zhang*

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UV-C emitting phosphors of Pr^{3+} -doped fluoroborate nano-glass composites for disinfection and as fast scintillators

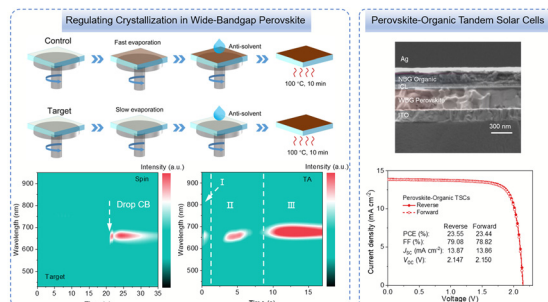
Sikai Wang, Ziyang Wu, Lei Sun, Jinjun Ren, Xiaoxin Zheng,* Jianzhong Zhang and Jing Ren*



6309

Regulating crystallization in wide-bandgap perovskite with removable additives for an expanded processing window contributes to efficient tandem solar cells

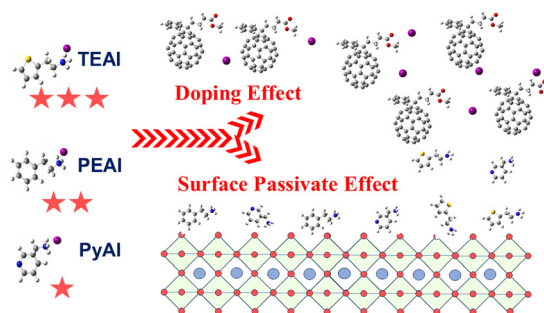
Guanshui Xie, Huan Li, Jun Fang, Xin Wang, Lin Gan, Nuanshan Huang, Haichen Peng, Xiao Lin and Longbin Qiu*



6319

Multifunctional organic ammonium dopants for electron transport layers in efficient inverted perovskite solar cells

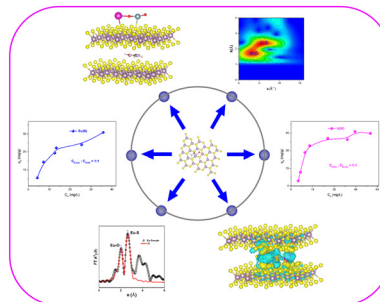
Tianyu Xu, Jiahui Jin, Shengxiong Zhang, Xiaomei Chen, Weijie Song* and Wenjun Zhang*



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Density functional theory and EXAFS spectroscopy studies of formamidoxime-intercalated molybdenum disulfide for the removal of Eu(III) and U(VI)

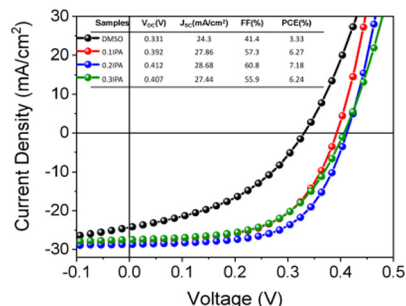
Jian Wang,* Wangyang Liu and Yan Li



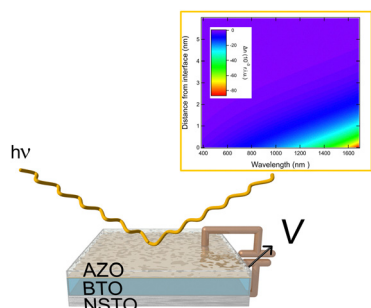
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Enhancing the efficiency of CZTSSe solar cells via binary solvent induced microstructure regulation

Sijie Ge,* Xuanzhi He, Qianli Zhang, Junjie Lin, Yuchang Zeng, Yudiao Lin, Conglong Lin, Yan Zhang and Xianzhong Lin



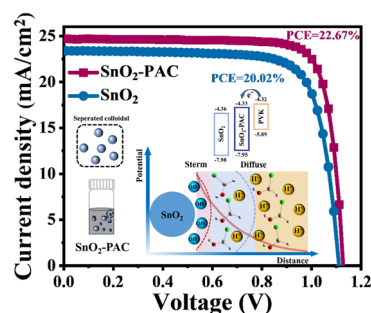
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Active optical modulation in hybrid transparent-conductive oxide/electro-optic multilayers

Riccardo Magrin Maffei, Michele Magnozzi, Maria Sygletou, Stefano Colace, Sergio D'Addato, Alexandr Yu. Petrov, Maurizio Canepa, Piero Torelli, Alessandro di Bona, Stefania Benedetti* and Francesco Bisio

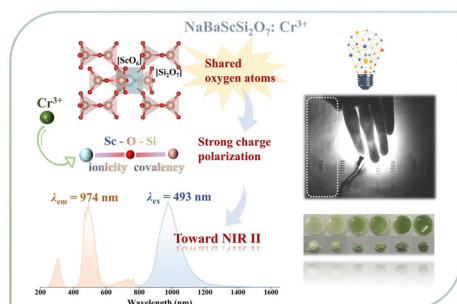
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Regulating the crystallization of tin oxide nanoparticles by an environmentally friendly poly-aluminum chloride additive for a high-quality electron transport film in perovskite solar cells

Xueqi Zhang, Disheng Yao,* Haiyue Dong, Junzhe Han, Wenwen Zheng, Bing Zhou, Nan Tian, Yong Peng, Guoyuan Zheng* and Fei Long

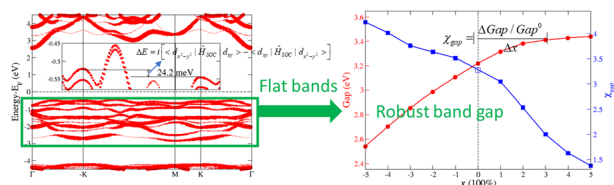
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Broadband photoluminescence toward the NIR II region and stable green ceramic pigments based on a novel NaBaScSi₂O₇:xCr silicate phosphor

Xuejiao Wang,* Sihan Yang, Feng Jiang, Jiantong Wang, Changshuai Gong and Ji-Guang Li*

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A first-principles study on antiferromagnetic VYNF₂ with flat robust bands, valley splitting, and an out-of-plane piezoelectric response

Qiang Gao,* Tingting Lin, Wei Wang, Guimei Shi, Xin Jin* and Chen Shen

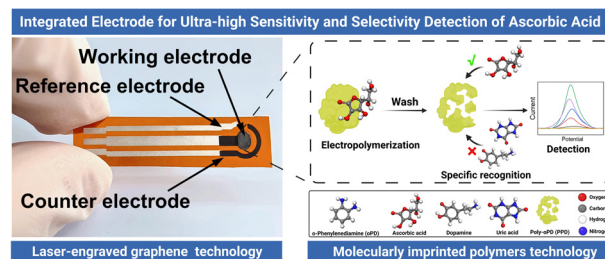


PAPERS

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Ultra-sensitive and specific detection of ascorbic acid using a laser-engraved graphene electrode modified with a molecularly imprinted polymer

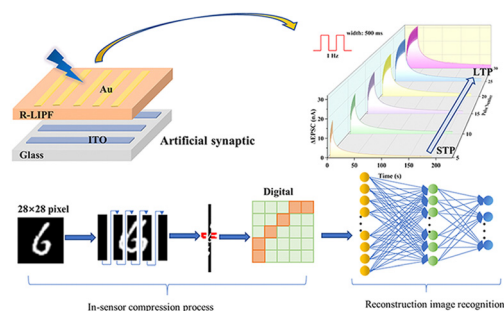
Wei Jin, Handong Yao, Xuefeng Wang, Ming Li,*
Xinghua Gao, Wei Chen* and Yuan Zhang*



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Artificial optoelectronic synapses based on organic–inorganic hybrid perovskite ferroelectrics for reservoir computing

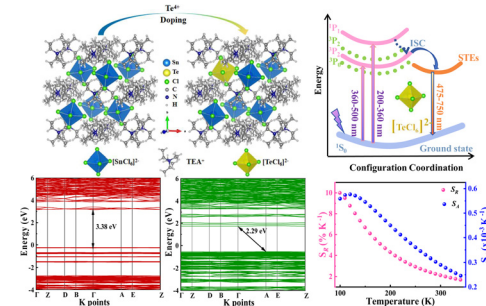
Yafei Chen, Lingling Zhang, Shuaifei Mao, Zhenyu Li,
Chunli Jiang, Chunhua Luo,* Hechun Lin, Hui Peng* and
Chun-Gang Duan



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Self-trapped exciton luminescence of tellurium doped zero-dimensional tetraethyl tin chloride for optical thermometry

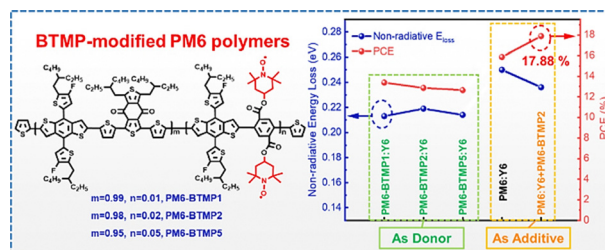
Chen Chen, Hailong Yu, Hongbo Qi, Gaoke Dong,
Jing Li, Gang Yang and Wenzhi Wu*



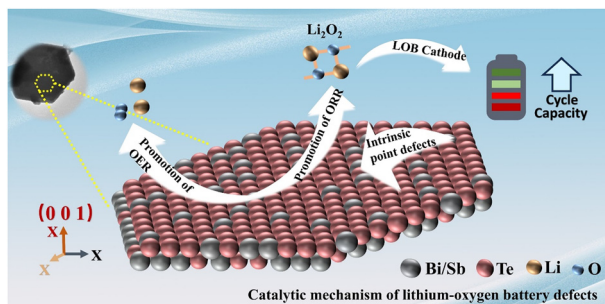
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Suppressing the non-radiative energy loss of organic solar cells by embedding nitroxide radical blocks in wide bandgap conjugated polymer donors

Huiyuan Peng, Junhong Liang, Yuan Zhou,* Zhenyu Zhu,
Jiawei Guan, Pengzhi Guo, Xunchang Wang,
Renqiang Yang, Ergang Wang and Yangjun Xia*



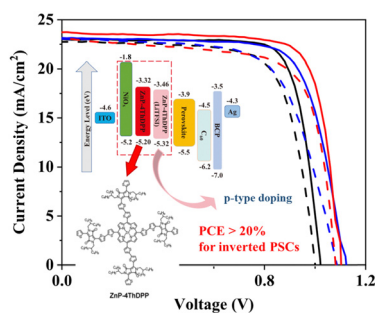
6425



Defect mechanism of the $\text{Bi}_x\text{Sb}_{2-x}\text{Te}_3$ alloy catalyst for lithium–oxygen battery applications

Songyan Liu, Xujie Song, Jianhua Zhou,* Jie Gao, Haiqing Qin, Xiaoyang Wang, Jun-Liang Chen, Wenping Liu, Xiaoxu Lei and Lei Miao*

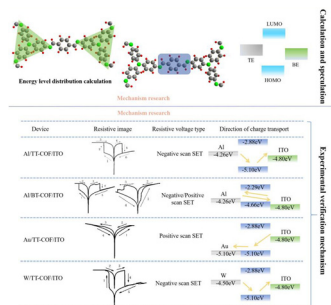
6436



Orthogonal small-molecule zinc porphyrin derivative as efficient hole transport material for high-performance inverted perovskite solar cells

Chaojun Sun, Lunan Du, Wenxiu Du, Jingsheng Wang, Huiru Li, Youtian Tao* and Zhengyi Sun*

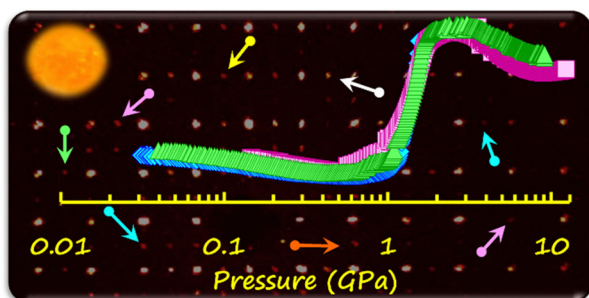
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Electric field-induced intramolecular charge transfer of two-dimensional covalent organic frameworks with D–A systems for organic memristors

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A monoclinic crystal structure and a reusable stress-controlled optoelectronic switch in a lead halide perovskite, CsPbBr_3

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