

Journal of Materials Chemistry C

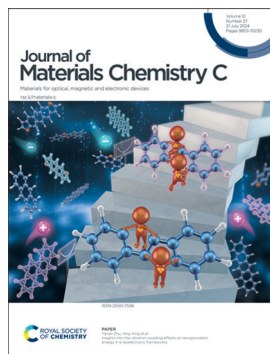
Materials for optical, magnetic and electronic devices

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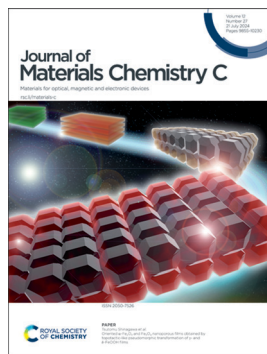
IN THIS ISSUE

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Cover

See Xing Xing, Hong Meng *et al.*, pp. 9950–9956.
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Inside cover

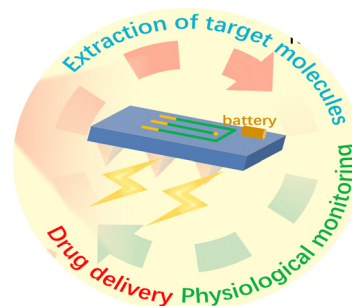
See Tsutomu Shinagawa *et al.*, pp. 9957–9967.
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REVIEWS

9868

Emerging microelectronic microneedles (eMN) for biomedical applications

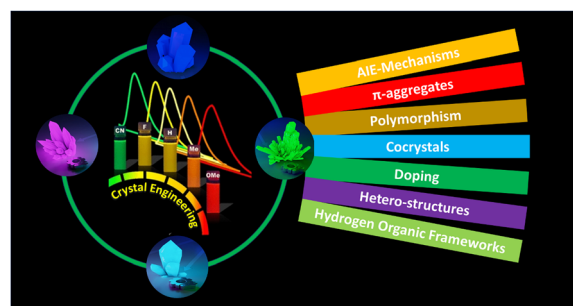
Shu Zhou, Qian Zhou, Xin Li* and Bingbing Gao*



9888

Photoluminescent organic crystals and co-crystals

Aijaz A. Dar* and Asif A. Malik



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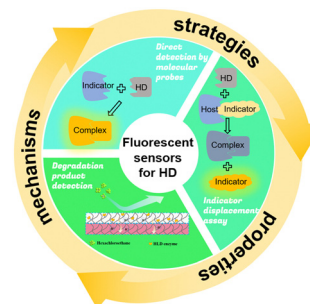
**Fundamental questions
Elemental answers**

REVIEWS

9914

Recent advances in the development of fluorescent sensors for sulfur mustard detection

Sheng-Song Li, Hao-Tian Zhou, Hai-Zhen Li, Lun-Chao Zhong, Fa-Heng Zhang, Fu-Bing Sun, Tian Xue,* Mo-Lin Qin* and Yong-Chao Zheng*

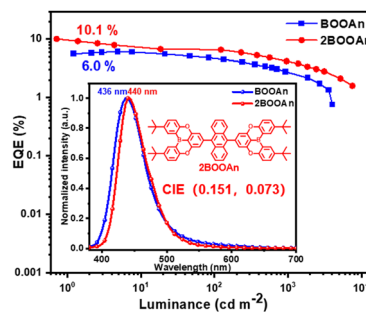


COMMUNICATIONS

9929

Oxygen-bridged triarylboron substituted anthracene emitters with high-lying triplet-singlet intersystem crossing for efficient deep-blue OLEDs

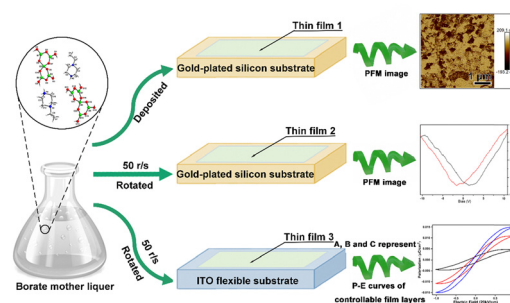
Ziquan Lu, Dehua Hu,* Si-Wei Chen, Ruicheng Wang, Longjiang Xing, Yihong Zhu, Jieying Lin, Yanping Huo and Shaomin Ji*



9939

A borate $[C_6N_2H_{15}] \cdot [B_5O_6(OH)_4]$ ferroelectric crystal: synthesis, properties and film fabrication

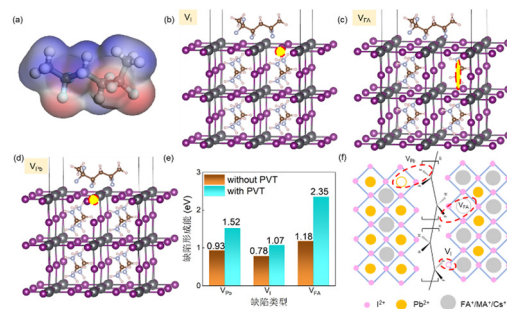
An-Na Chen, Yan-Ling Deng, Shu-Sheng Xin, Zhi-Qiang Liu, Li-Juan Zhong and Chun-Yang Pan*



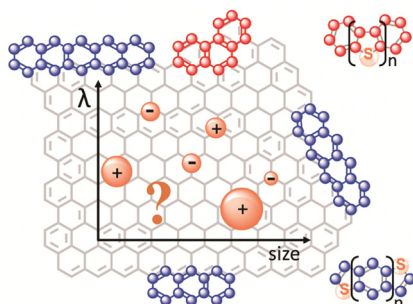
9944

A sensitive self-powered perovskite photodetector via noise suppression with poly(vinylidene fluoride-trifluoroethylene) doping for defect passivation

Yuping Liu, Zhirong Liu,* Zhiguo Zhang, Junyi Huang, Xiongjie Li, Haixuan Yu, Yan Shen, Mingkui Wang and Guoli Tu*



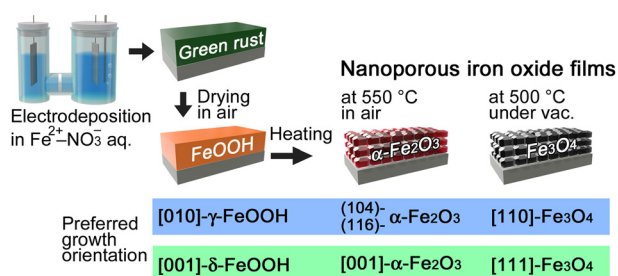
9950



Insights into the vibration coupling effects on reorganization energy in π -isoelectronic frameworks

Yanan Zhu, Xing Xing,* Chongguang Zhao and Hong Meng*

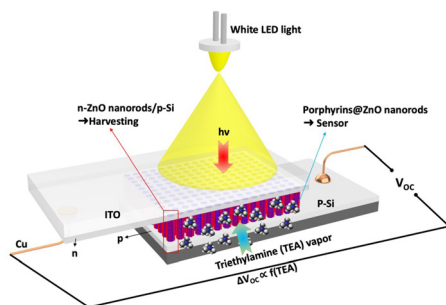
9957



Oriented $\alpha\text{-Fe}_2\text{O}_3$ and Fe_3O_4 nanoporous films obtained by topotactic-like pseudomorphic transformation of γ - and δ -FeOOH films

Tsutomu Shinagawa,* Yuya Kanemoto and Atsushi Ohtaka

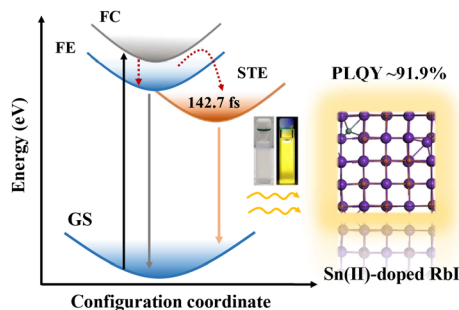
9968



A self-powered photoactive room temperature gas sensor based on a porphyrin-functionalized ZnO nanorod/p-Si heterostructure

Arbacheena Bora, Jeena George, Yuvaraj Sivalingam,* Velappa Jayaraman Surya, Gabriele Magna, S. R. N. Kiran Mangalampalli, Roberto Paolesse and Corrado Di Natale*

9978



Bright self-trapped exciton emission in alkali iodide nanocrystals via Sn(II)-doping

Xuemeng Wang, Zan Dou, Cong Tao, Gaoyu Chen, Qi Wei, Haoyu You, Xiaowang Liu, Yatao Zou, Nannan Han and Weidong Xu*

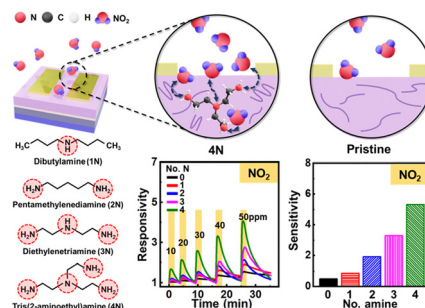


PAPERS

9986

Additive engineering for high-performance polythiophene gas sensors incorporating functional amine additive with strong binding energy for NO₂

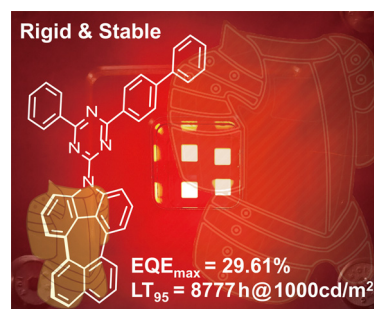
So Jeong Park, Ju Young Kim, Dae Hwan Kim, Duho Jang and Yeong Don Park*



9993

Highly efficient and stable pure-red phosphorescent organic light-emitting diodes based on heptacyclic bipolar hosts featuring an armor-like structure

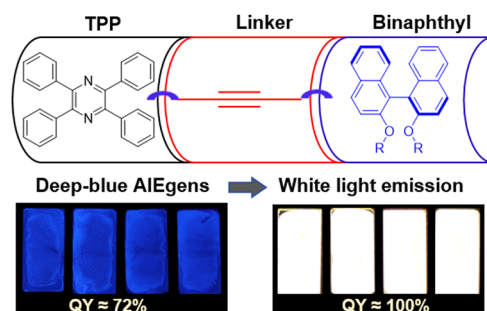
Zhimin Meng, Yanan Zhu,* Hongyang Li, Xiaopeng Zhang, Yifan Shang, Changchun Kuang and Hong Meng*



9999

Tetraphenylpyrazine-based chiral deep-blue dyes with high brightness for energy delivery

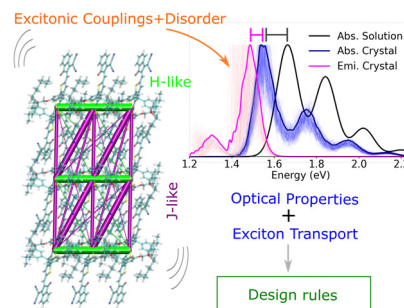
Xiang He, Canze Zheng, Xin Deng, Yingjuan Hong, Miao Meng, Chunxuan Qi, Hai-Tao Feng, Ming Chen* and Ben Zhong Tang



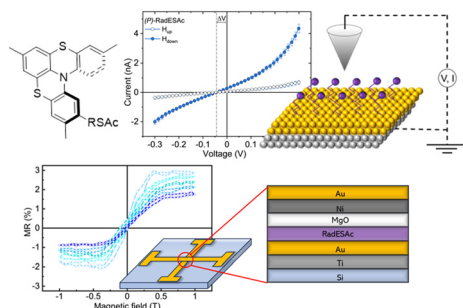
10009

Dissecting the nature and dynamics of electronic excitations in a solid-state aggregate of a representative non-fullerene acceptor

Samuele Giannini,* Jesús Cerdá, Giacomo Prampolini, Fabrizio Santoro and David Beljonne



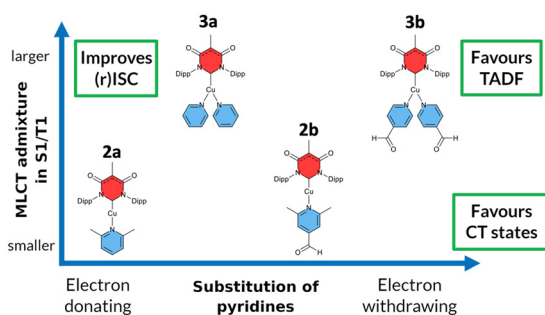
10029



Spin polarized current in chiral organic radical monolayers

Niccolò Giaconi, Michela Lupi, Tapan Kumar Das, Anil Kumar, Lorenzo Poggini, Caterina Viglianisi, Lorenzo Sorace, Stefano Menichetti, Ron Naaman, Roberta Sessoli and Matteo Mannini*

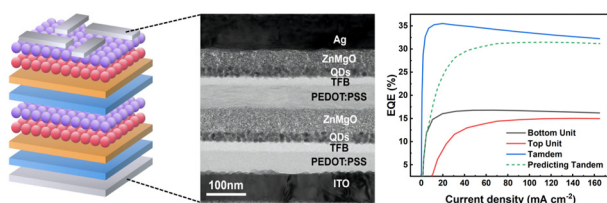
10036



How to tune luminescent Cu(I) complexes with strong donor carbenes towards TADF

Jasper Guhl, Dragana Sretenović, Philipp Schmeinc, Suren Felekyan, Ralf Kühnemuth, Christian Ganter,* Claus A. M. Seidel,* Christel M. Marian* and Markus Suta*

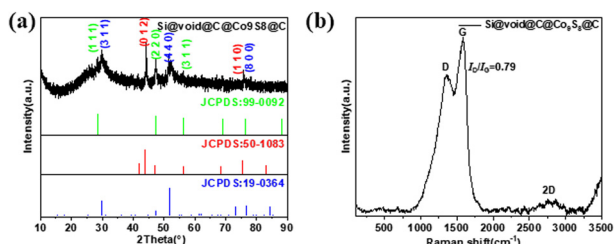
10053



Fully solution-processed red tandem quantum dot light-emitting diodes with an EQE exceeding 35%

Yuhan Sun, Changfeng Han, Ruifeng Li,* Chaoyu Xiang,* Ting Zhang* and Lei Qian

10061



ZIF-derived carbon-coated Co₉S₈ for a silicon anode with superior performance in lithium-ion batteries

Xiaojie Sun, Ping Chen,* Xue Zhou, Ying Liu and Weixiao Dong

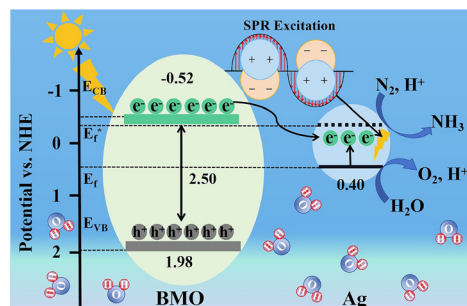


PAPERS

10070

Plasma Ag nanoparticles loaded on Bi₂MoO₆ to enhance surface oxygen vacancies for efficient nitrogen conversion to ammonia

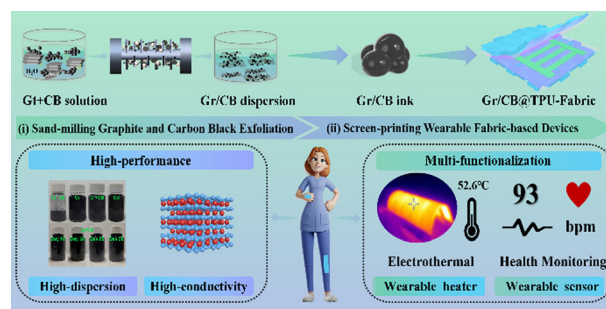
Zhenyu Liu, Min Luo,* Linghu Meng, Senda Su, Wenming Ding, Shengbo Yuan, Hua Li and Xiaoman Li*



10083

High-conductivity graphene/carbon black inks via interpenetrating networks for wearable fabric-based heaters and strain sensors

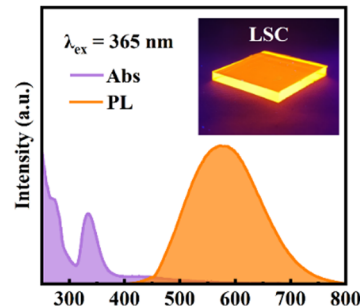
Yujin Zhang, Xiangping Chen, Yuqi Dong, Guowen Zhang, Huizhuo Cai, Yongcai Wu and Yongxiao Bai*



10096

An eco-friendly luminescent solar concentrator with high photon transport efficiency based on Bi-doped Cs₂Na_{0.6}Ag_{0.4}InCl₆ quantum dots

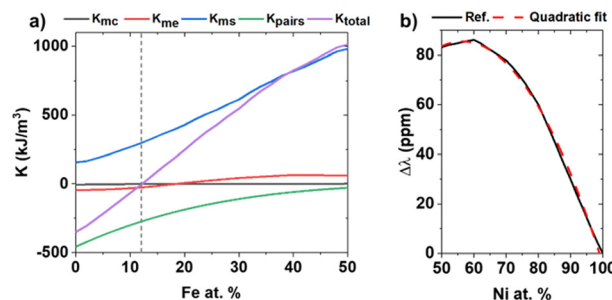
Shaohua Li, Yi Zhang, Zihan Song, Zida Zheng, Xiaowei Zhang* and Xueyun Liu*



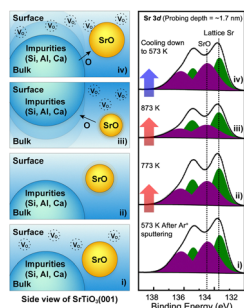
10104

Magnetic anisotropy evolution with Fe content in electrodeposited Ni_{100-x}Fe_x thin films

A. Begué, N. Cotón and R. Ranchal*



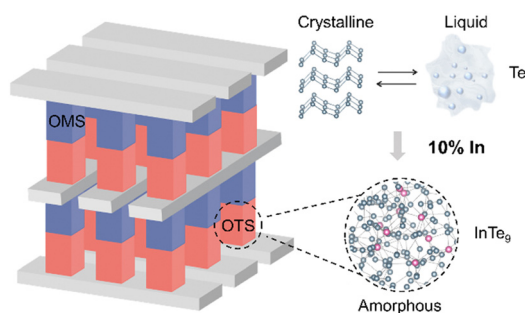
10110



An *in situ* study on the depth-resolved chemical states of undoped SrTiO₃(001) surfaces during Ar⁺ sputtering and annealing processes with XPS

Dongwoo Kim, Hojoon Lim, Minsik Seo, Hyunsuk Shin, Kyungmin Kim, Subin Jang, Ki-jeong Kim, Jeongjin Kim and Bongjin Simon Mun*

10118



Indium turns tellurium into an ovonic threshold switching selector *via* a stabilizing amorphous network

Huan Wang, Rongchuan Gu, Xianliang Mai, Hengyi Hu, Meng Xu, Hao Tong, Zhongrui Wang, Xiangshui Miao and Ming Xu*

10127

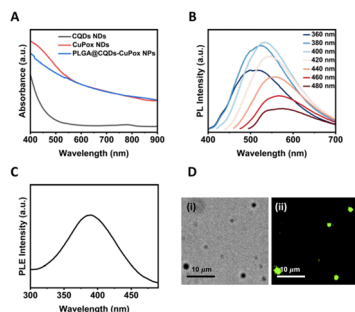


- ✓ Alternating D-A macrocycle
- ✓ Cross-conjugation
- ✓ Large Stokes shift
- ✓ NIR luminescence
- ✓ Positive solvatochromism
- ✓ Metal ion recognition
- ✓ Turn-on fluorescent probe

A donor–acceptor cross-conjugated phenazine macrocycle with a large Stokes shift for sensing transition metal ions with “turn-on” fluorescence

Hui Li, Xuejie Zhang, Jianfeng Peng, Shuaijun Yang,* Riming Hu and Xuchuan Jiang*

10135



Integrated H₂O₂ self-supplying PLGA@CQDs–CuPox nanoparticles enabling accumulation of copper during the Fenton reaction

Bairui Qi, Wenfang Wu, Ziyi Wang, Gengyan Liu,* Zhou Li and Zhu Xiao*

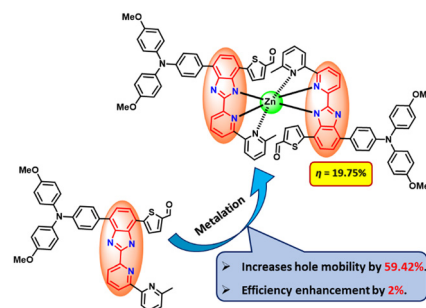


PAPERS

10145

Zinc complex-based hole transporting material for perovskite solar cell applications

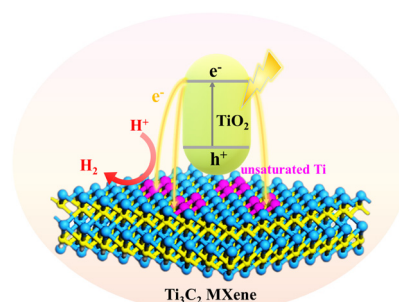
Yogesh S. Tingare,* Ya-Chun Hsu, Jyun-Dai Lin, Chaochin Su,* Wan-Chun Wang, Sheng-Han Wang, Shi-Yun Lai, Zhi-Ting Wu, Ja-Hon Lin, Hsiou-Hsuan Wang and Wen-Ren Li*



10152

Charge self-regulation of Ti sites in Ti_3C_2 MXene via rich unsaturated Ti for boosted photocatalytic hydrogen generation

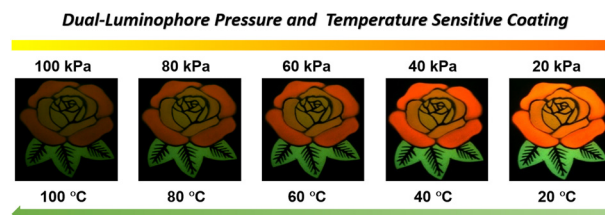
Ying Cao, Ping Wang,* Xuefei Wang, Feng Chen and Huogen Yu*



10161

AlEgen-incorporated nanoparticles as a probe for the construction of dual-luminophore pressure- and temperature-sensitive coatings

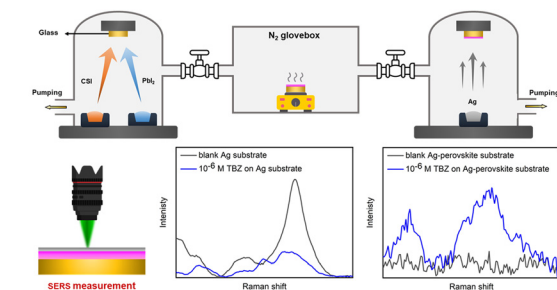
Jiwei Li, Yingying Ren, Jiangeng Ma, Qiu Wang* and Xiaozhong Qu*



10172

Fabrication of Ag-perovskite substrates for surface-enhanced Raman scattering via all-vacuum deposition

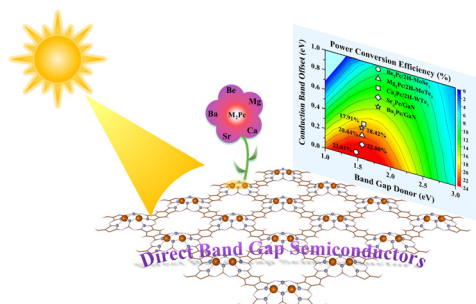
Chih-Yi Liu, Jhih-Yan Guo, Jin-Yi Lin, Kasimayan Uma and Shun-Wei Liu*



With minimal fluctuation in their own Raman spectra, Ag-perovskite SERS substrates are powerful for identifying low-concentration analytes.



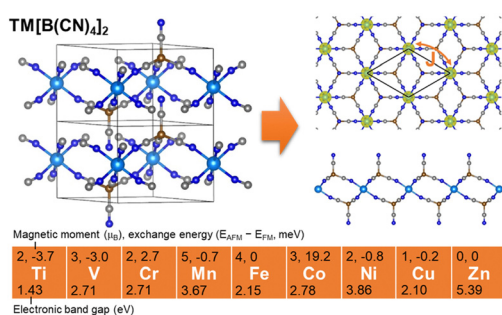
10181



Alkaline-earth metal embedded expanded phthalocyanine nanosheets with direct band gaps and high power conversion efficiency

Cui Wang and Li-Ming Yang*

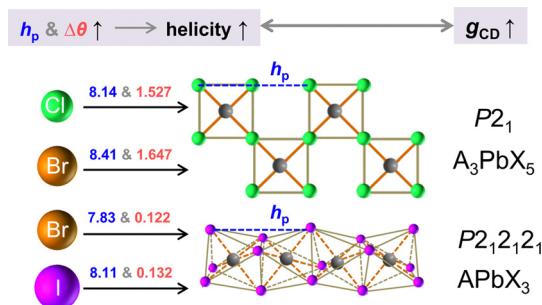
10193



Prediction of two-dimensional large-gap magnetic semiconductors in transition metal superhalogenides

Jing Wang, Yuzhen Liu,* Ruifeng Lu, Ziyang Qu, Ang Li, Yi Wan and Chengxi Huang*

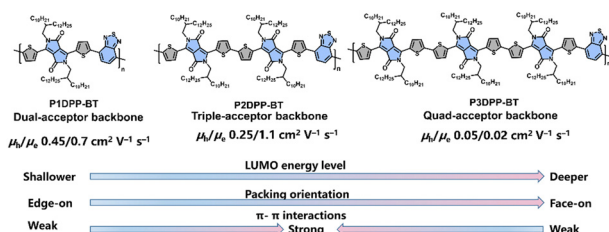
10200



The role of halogens in structural diversity and chirality enhancement of 1D chiral hybrid metal halides

Jing-Meng Zhang, Xiang-Bin Han, Wei Wang, Ming-Liang Jin, Chang-Qing Jing, Chao-Yang Chai, Cheng-Dong Liu and Wen Zhang*

10209



An acceptor-quantity modulation strategy for high-performance ambipolar semiconducting polymers: from a dual-acceptor to a quad-acceptor backbone

Kewei Jiao, Xiaochan Zuo, Tao Shen, Wenhao Li, Yan Zhao, Xiaoliang Mo,* Yang Wang* and Yunqi Liu

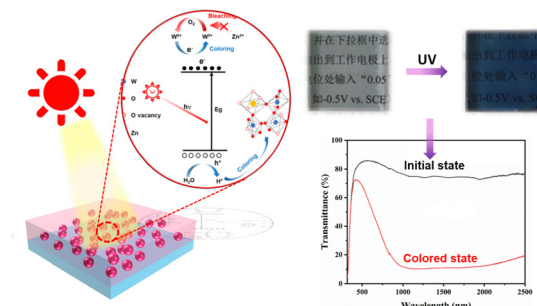


PAPERS

10218

Enhanced photochromic performance of Zn-doped $W_{18}O_{49}$ -based films for smart windows

Tingfeng Ma, Bin Li, Yongkang Zhu, Senwei Wu, Xiujian Zhao, Xinhong Chu and Shouqin Tian*



CORRECTIONS

10226

Correction: Insights into the vibration coupling effects on reorganization energy in π -isoelectronic frameworks

Yanan Zhu, Xing Xing,* Chongguang Zhao and Hong Meng*

10227

Correction: Insights into the roles of the MgO additive in crystal structures, sintering behaviors, and optical properties of transparent In_2O_3 semiconductor ceramics

Bo You, Bin Lu,* Dazhen Wu and Ruijie Pei

