

Journal of Materials Chemistry C

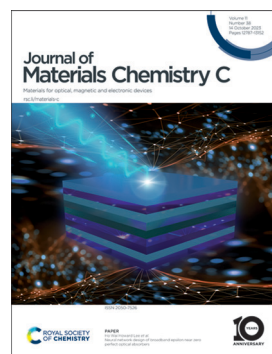
Materials for optical, magnetic and electronic devices

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IN THIS ISSUE

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See Ho Wai Howard Lee
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PROFILE

12799

Contributors to the Emerging Investigators 2023
issue



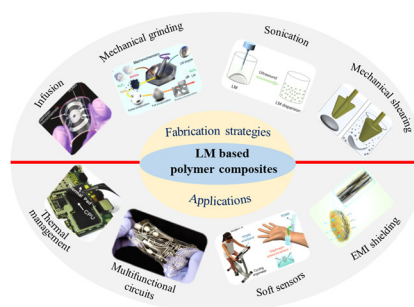
Journal of
Materials Chemistry C
2023 Emerging Investigators

REVIEWS

12807

A review on thermal and electrical behaviours of
liquid metal-based polymer composites

Li-Chuan Jia, Yun-Fei Yue, Jian-Feng Zeng,
Zhi-Xing Wang, Run-Pan Nie,* Ling Xu,
Ding-Xiang Yan* and Zhong-Ming Li



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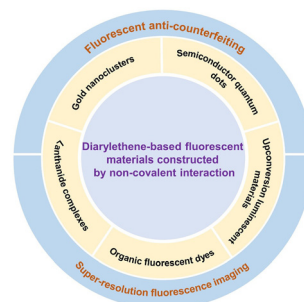


REVIEWS

12828

Photochromic diarylethene induced fluorescence switching materials constructed by non-covalent interactions

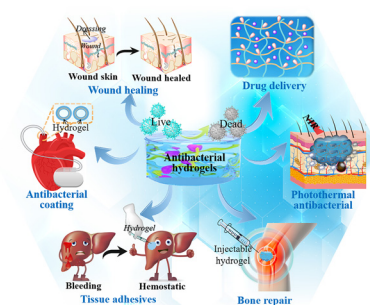
Qing-Feng Li, Longlong Zhang, Mengdan Shen, Jin-Tao Wang,* Lin Jin* and Zhenling Wang*



12848

Recent progress of antibacterial hydrogel materials for biomedical applications

Qian Wang, Xing Feng, Hong Xu, Guo Guo, Ying Li* and Qilong Zhang*

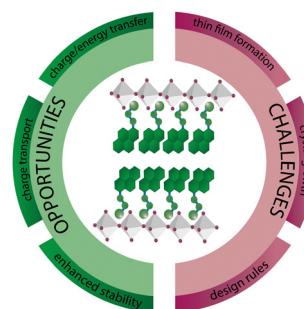


PERSPECTIVE

12877

2D and quasi-2D hybrid perovskites containing organic cations with an extended conjugated system: opportunities and challenges

Wouter T. M. Van Gompel,* Laurence Lutsen and Dirk Vanderzande

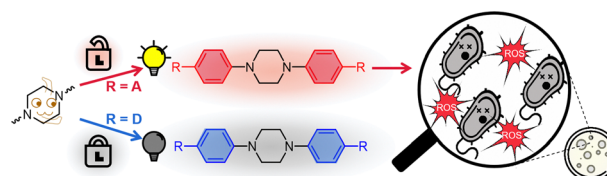


COMMUNICATIONS

12894

Piperazine: a promising building block for aggregation-induced emission materials

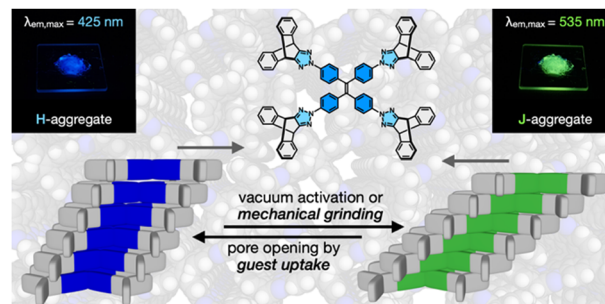
Tuokai Peng and Hui-Qing Peng*



12933

A hydrogen-bonded organic framework of rigidly branched fluorophore: guest-adaptive cavity and phase-dependent light emission

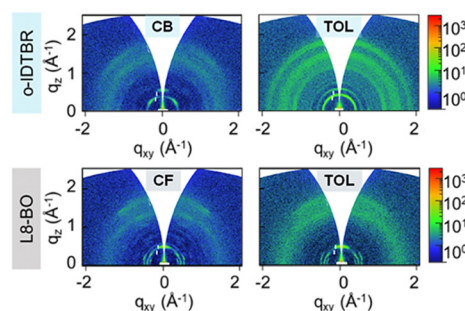
Hongsik Kim, Hyejin Yoo, Jin Yeong Kim and Dongwhan Lee*



12941

Boosting electron transport in non-fullerene acceptors using non-chlorinated solvents

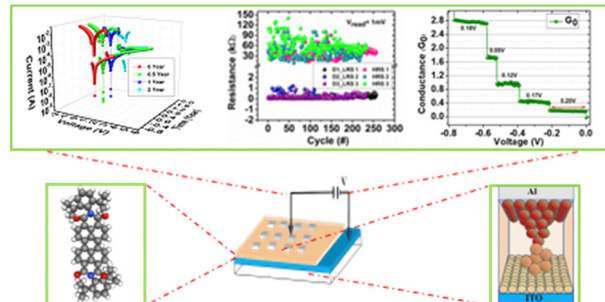
Mohamad Insan Nugraha,* Ryanda Enggar Anugrah Ardhi, Dipti Naphade, Weimin Zhang, Youyou Yuan, Martin Heeney and Thomas D. Anthopoulos*



12949

Two-stage filamentary mechanism in high-performance organic resistive switches

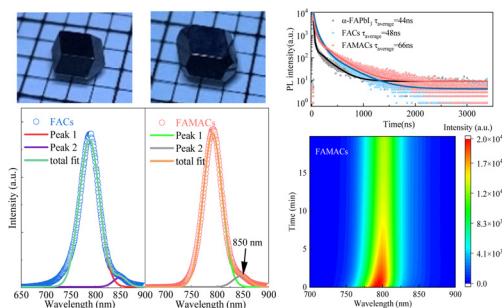
Arti Bisht, Nitish Saini, Komal Bhardwaj, Rachana Kumar and Ajeet Kumar*



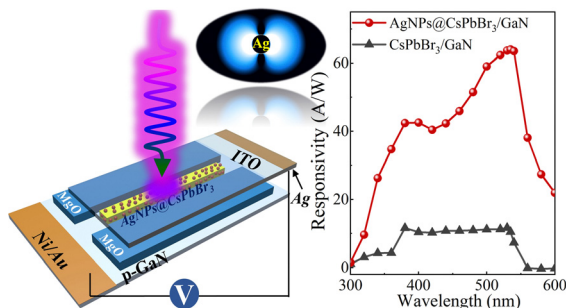
12959

Synergistic enhancement of the optoelectronic performance and stability of MA and Cs in FA_xMA_yCs_{1-x-y}PbI_zBr_{3-z} single crystals

Kaiyu Wang, Feitong Chen, Qing Yao, Jie Zhang, Huiling Zhu, Weiwei Zhang, Xiaoyuan Zhan, Shenglai Wang* and Jianxu Ding*



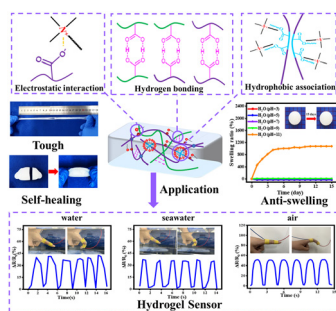
12968



Plasmon-enhanced photoresponse and stability of a CsPbBr₃ microwire/GaN heterojunction photodetector with surface-modified Ag nanoparticles

Chengxin Lin, Peng Wan, Bingwang Yang, Daning Shi, Caixia Kan* and Mingming Jiang*

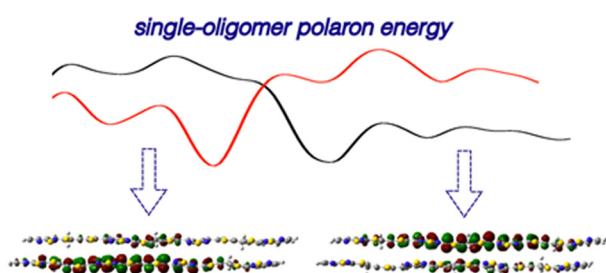
12981



Anti-swelling hydrogels based on surfactant-polymer interactions for underwater sensing with excellent mechanical properties

Yue Cai, Kaizhen Wan, Qihui Chen, Maochun Hong, Zhao-Xi Zhou* and Heqing Fu*

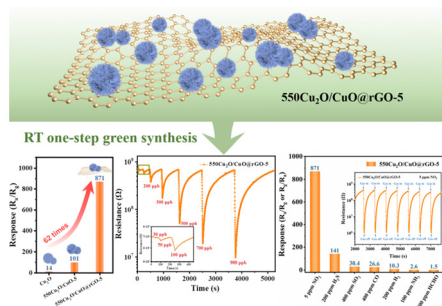
12992



Dynamics-induced charge transfer in semiconducting conjugated polymers

Fabian Bauch, Chuan-Ding Dong* and Stefan Schumacher

12999



One-step green synthesis of Cu₂O/CuO@rGO composites for ppt level detection of NO₂ at room temperature

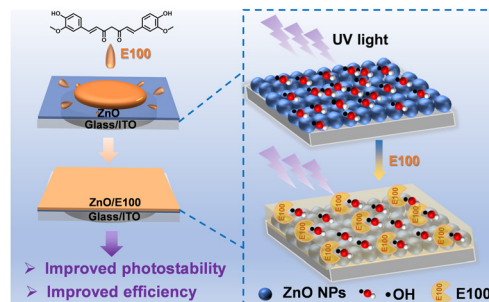
Jinjuan Li, Jing Hu,* Nan Li, Miao Cheng, Tao Wei, Qianqian Liu, Ruirui Wang, Wanfei Li, Yun Ling, Yafei Zhang and Bo Liu*



13010

Simultaneous improvement in efficiency and photostability of organic solar cells by modifying the ZnO electron-transport layer with curcumin

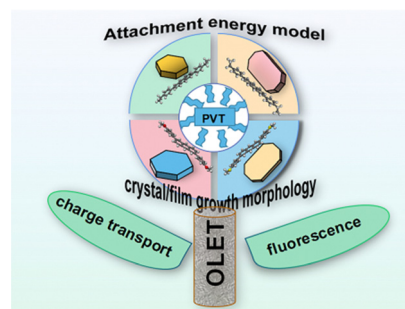
Yue Liu, Hang Yang, Yue Wu, Hongyu Fan, Xiaoxiao Li, Kewei Hu, Chaohua Cui* and Yongfang Li



13018

The effect of heteroatoms at end groups of anthracene derivatives on the photoelectric properties and crystal/film morphology: a theoretical perspective

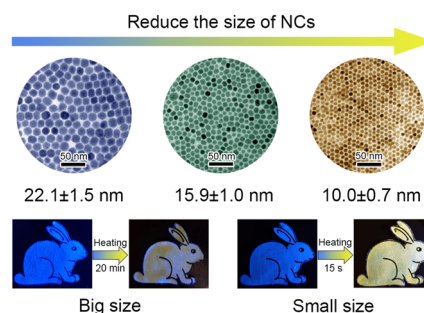
Gui-Ya Qin, Xiao-Qi Sun, Pan-Pan Lin, Xue Wei, Jing-Fu Guo, Wei-Bo Cui, Jian-Xun Fan, Hui Li, Lu-Yi Zou and Ai-min Ren*



13030

Phase transition and rapid temperature response of lead-free perovskite Cs–Cu–I nanocrystals enabled by their size

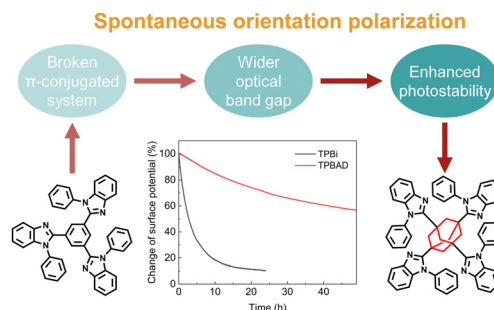
Jie Chen, Yu Li, Zhe Yin,* Shuaibing Wang, Ouyang Lin, Wentao Niu, Feng Teng* and Aiwei Tang*



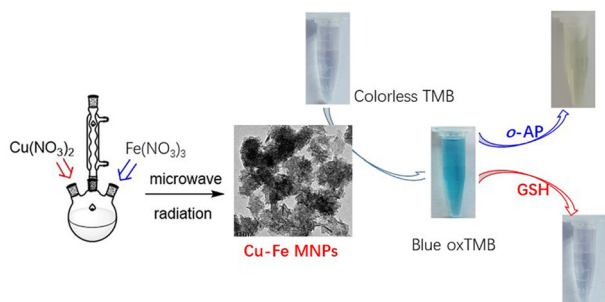
13039

Stable spontaneous orientation polarization by widening the optical band gap with 1,3,5,7-tetrakis(1-phenyl-1H-benzo[d]imidazol-2-yl)-adamantane

Wei-Chih Wang, Kyohei Nakano, Yuya Tanaka, Keisuke Kurihara, Hisao Ishii, Kiyohiro Adachi, Daisuke Hashizume, Chain-Shu Hsu* and Keisuke Tajima*



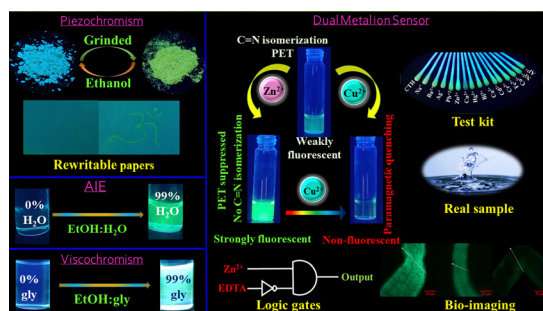
13047



Peroxidase-like Cu–Fe bimetal oxide mesoporous nanospheres identified for the efficient recognition of toxic *o*-aminophenol and bioactive glutathione

Xuemei Zhou, Lingmin Kong, Junkai Hao, Jing Feng, Shuo Sun, Chuanzhen Zhou, Yanmin Liu, Zhengquan Yan,* Xiao Zhu and Lei Hu*

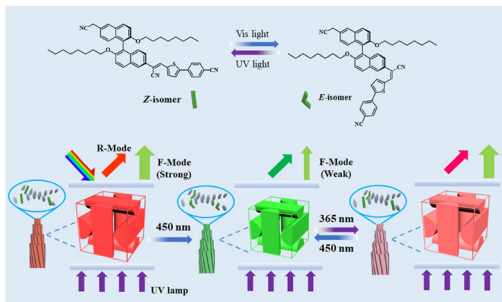
13056



A multifunctional coumarin-based probe for distinguishable detection of Cu²⁺ and Zn²⁺: its piezochromic, viscochromic and AIE behavior with real sample analysis and bio-imaging applications

Aayoosh Singh, Pranjalee Yadav, Saumya Singh, Pradeep Kumar, S. Srikrishna and Vinod P. Singh*

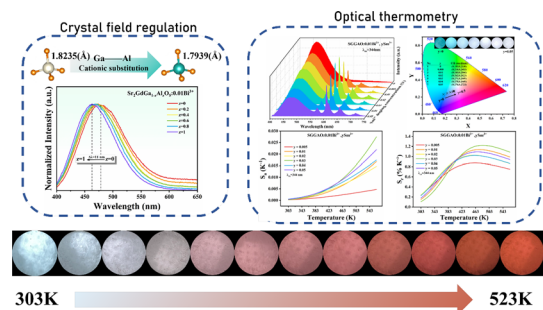
13067



Simultaneous optical tuning of reflection and fluorescence in a self-organized simple 3D cubic structure by α -cyanodiarylethene-based chiral fluorescence photoswitches

Jingjing Wang, Yanrong He, Shan Li, Qingyan Fan and Jinbao Guo*

13074



Multicolor tunable Bi³⁺, Sm³⁺ co-doped Sr₂GdGaO₅ phosphor and its application in optical thermometry

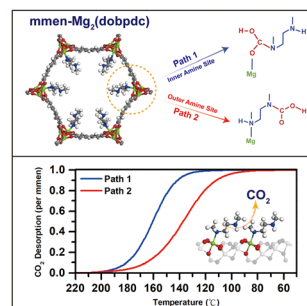
Kangrui Qiang, Yingqiang Yu, Yulong Ye, Liang Liang, Qinan Mao, Yang Ding, Yiwen Zhu, Meijiao Liu and Jiasong Zhong*



13085

Insights into the capture mechanism of CO₂ by diamine-appended Mg₂(dobpdc): a combined DFT and microkinetic modeling study

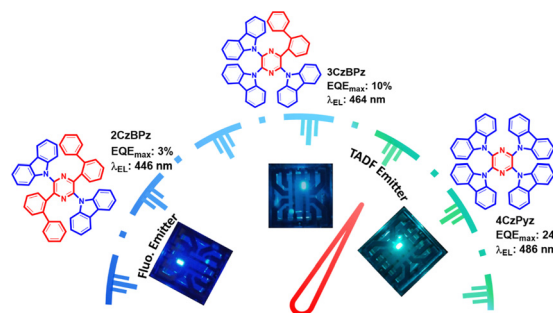
Kuan-Yu Lin, Zhong-Ming Xie, Lu-Sheng Hong and Jyh-Chiang Jiang*



13095

Tuning the emission and exciton utilization mechanisms of pyrazine-based multi-carbazole emitters and their use in organic light-emitting diodes

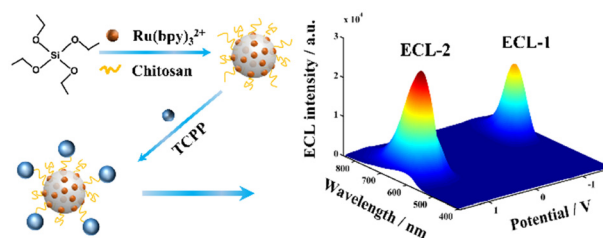
Dongyang Chen, Le Zhang, Tomas Matulaitis, David B. Cordes, Alexandra M. Z. Slawin, Xiao-Hong Zhang, Ifor D. W. Samuel* and Eli Zysman-Colman*



13106

Tetrakis (4-carboxyphenyl) porphyrin and Ru(bpy)₃²⁺ modified SiO₂ nanospheres for potential and wavelength resolved electrochemiluminescence

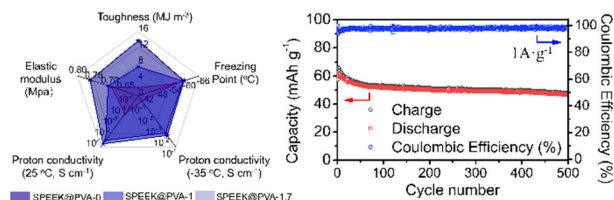
Mingquan Guo, Jiangnan Shu,* Dexin Du, Yisha Wang and Hua Cui*



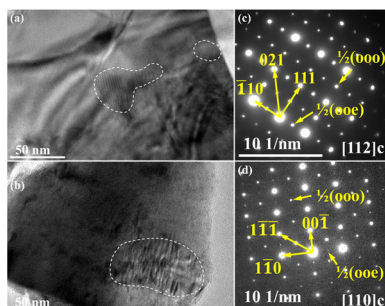
13113

A freezing-tolerant superior proton conductive hydrogel comprised of sulfonated poly(ether-ether-ketone) and poly(vinyl-alcohol) as a quasi-solid-state electrolyte in a proton battery

Hao Dong, Lin-Lin Wang, Zhi-Rong Feng, Jie Song, Qiao Qiao,* Yu-Ping Wu and Xiao-Ming Ren*



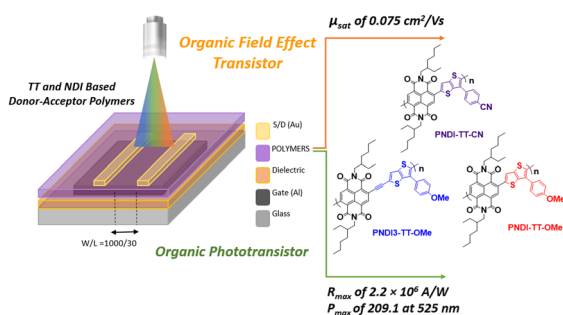
13120



Energy storage performance of NaNbO_3 lead-free dielectric ceramics by doping $\text{Sr}(\text{Mg}_{1/3}\text{Sb}_{2/3})\text{O}_3$

Qinpeng Dong, Peng Nong, Yue Pan, Dafu Zeng, Mingzhao Xu, Huanfu Zhou, Xu Li* and Xiuli Chen*

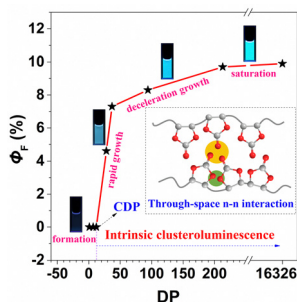
13129



Synthesis and characterization of naphthalenediimide-thienothiophene-conjugated polymers for OFET and OPT applications

Dilara Gunturkun, Recep Isci, Sheida Faraji, Berkay Sütay, Leszek A. Majewski and Turan Ozturk*

13142



Polymerization-induced clusteroluminescence of poly(cyclic carbonate)s

Bin Liu,* Genghong Huang, Hu-liang Lu, Kang Chen, Zishan Yan, Ya-Ling Wang, Bo Chu, Fu-de Ren, Yongzhen Yang and Xing-Hong Zhang*

