

Journal of Materials Chemistry C

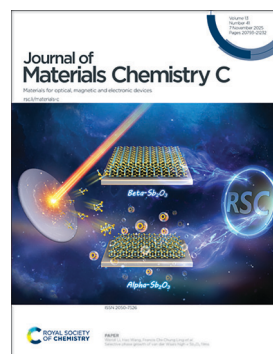
Materials for optical, magnetic and electronic devices

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Cover

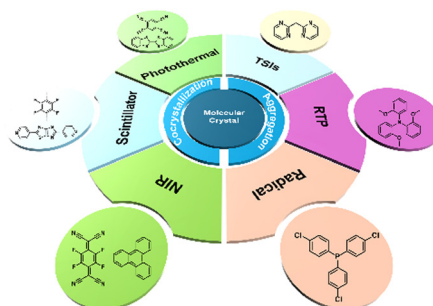
See Wendi Li, Hao Wang, Francis Chi-Chung Ling *et al.*, pp. 20931-20940. Image reproduced by permission of Francis Chi-Chung Ling from *J. Mater. Chem. C*, 2025, 13, 20931.

REVIEWS

20806

Aggregation-induced new functions: structure-property relationships in molecular crystals

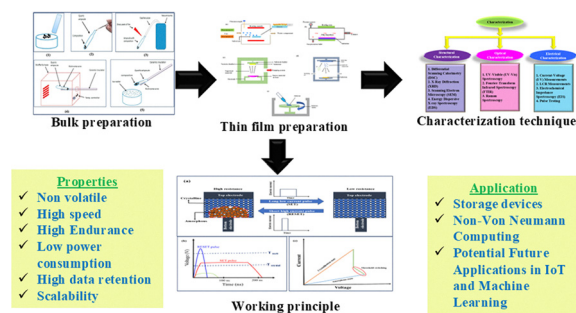
Yu Zhang, Bing Bai, Gian Albert Alfani, Zheng Zhao* and Ben Zhong Tang*



20825

The physics and promise of phase change memory in non-von Neumann computing and machine learning

Akhileshwar Mishra, D. K. Dwivedi* and Pravin Kumar Singh*



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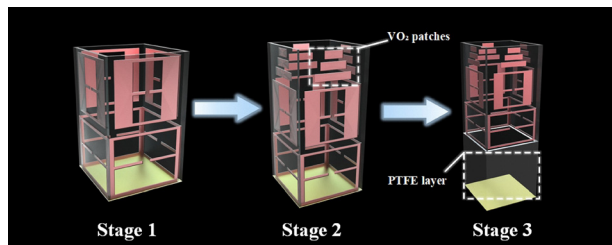
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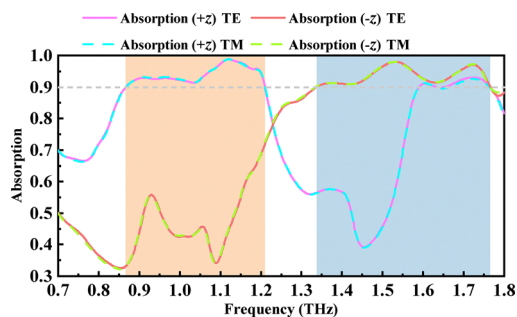
20941



Ultra-broadband toroidal metastructure absorber based on VO₂ with enhanced anapole response

Jun-Jie Luo, Yu-Hang Sun, Qi Chen and Hai-Feng Zhang*

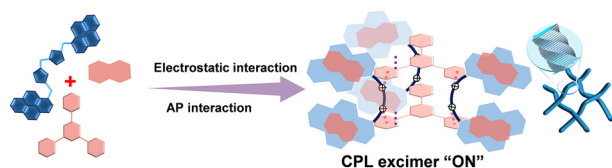
20956



Theoretical research on an ultra-wideband Janus metastructure for bidirectional electromagnetic wave absorbing

Xuan-Zhi Shi, Si-Yuan Liao and Hai-Feng Zhang*

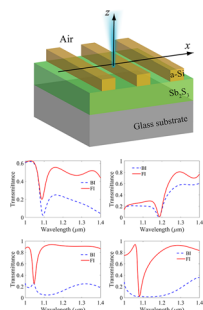
20973



Activated circularly polarized luminescence in a chiral supramolecular template triggered by electrostatic and arene-perfluoroarene interactions

Fengqing Hu, Siao Shi, Shijie Yang, Jiayan Zhao, Dou Liu, Xinyue Zhang, Yuxiang Wang* and Fei Li*

20979



Asymmetric light transmission via Sb₂S₃-enhanced nonreciprocal gratings on a glass substrate

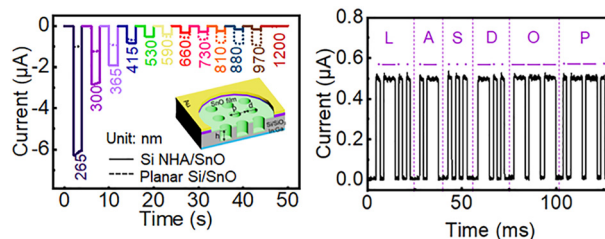
Xin Cui, Qi Fang, Jingfei Ye, Fenglin Xian and Gaige Zheng*



20989

Si nanohole array (Si NHA)-based type-I heterojunction for filterless self-powered ultraviolet photodetection

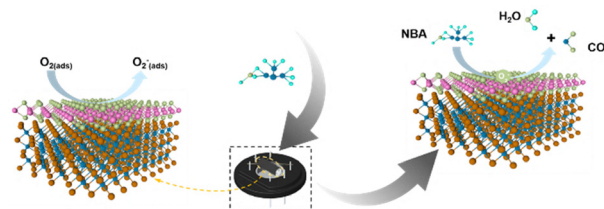
Jin-Xulong Gao, Chen-Yang Huang, Xiu-Xing Xu, Wei Shu, Feng-Xia Liang, Shi-Rong Chen, Yu-Xue Zhou, Chun-Yan Wu* and Lin-Bao Luo



20996

Highly sensitive detection of *n*-butanol at room temperature using a SnO₂/Nb₄C₃T_x-based sensing platform

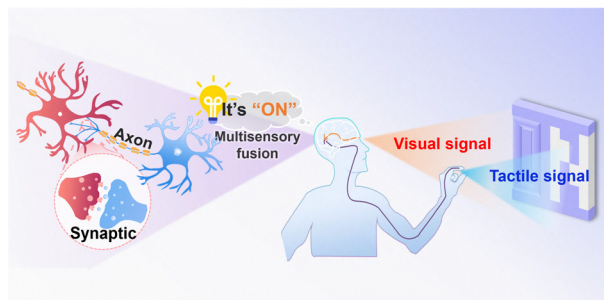
Yuanyuan Ma, Yu Yao, Ziyang Yin, Haozhe Zhuang, Lili Xie and Zhigang Zhu*



21006

Bioinspired multisensory fusion using a MoTe₂ optoelectronic memristor with oxygen plasma treatment for in-sensor reservoir computing

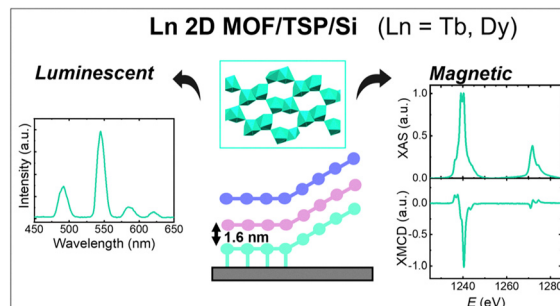
Shuang Ge, Qiang Wang, Jingyao Bian, Zhuangzhuang Li, Ye Tao,* Meng Qi,* Zewei Wang, Siyu Liu, Zhongqiang Wang,* Yongxing Zhu, Ya Lin, Xiaoning Zhao, Haiyang Xu and Yichun Liu



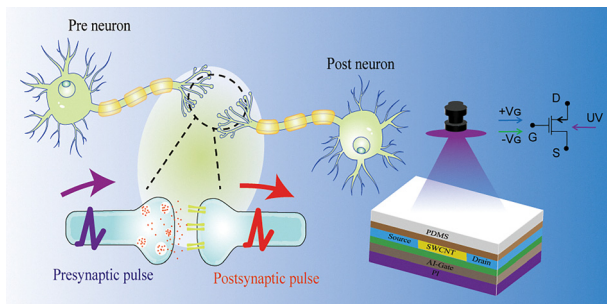
21015

Magnetic and luminescent lanthanoid (Ln = Tb, Dy) 2D MOFs on functionalized silicon

Elena Bartolomé,* Pablo Sevilla, Guillem Gabarró-Riera, Ana Arauzo, Juan Rubio Zuazo and E. Carolina Sañudo*



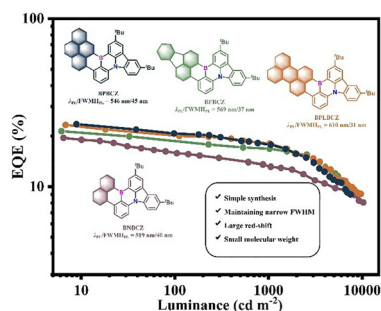
21027



A single-walled carbon nanotube-based phototransistor for neuromorphic vision applications

Jiahao Yao, Jing Xu, Hui Li, Litao Sun, Jianwen Zhao* and Hongxuan Guo*

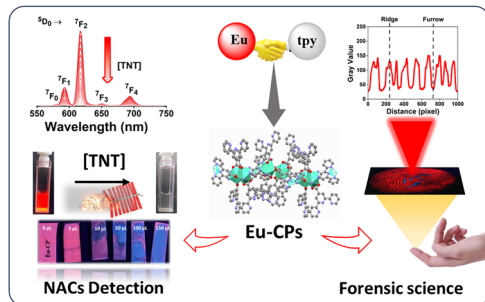
21034



Modular construction of medium-to-long wavelength multi-resonant fluorescent emitters

Yi Wei, Jia-Qi Liang, Li Yuan, Jia-Jun Hu, Shuai Xing, Zhong-Zhong Huo, Wen-Wei Zhang* and You-Xuan Zheng*

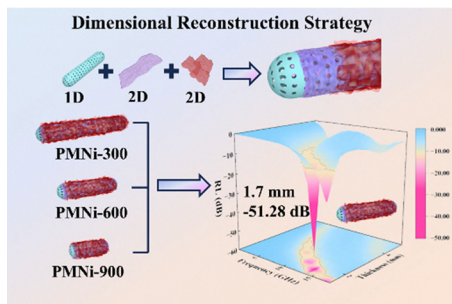
21040



Luminescent lanthanide coordination polymers for the detection of nitro explosives and efficient identification of latent fingerprints

Nitin Shukla, Juhi Sayala, Goutam Panigrahi and Ashis K. Patra*

21054



Reconstructing 2D MXene into 1D length-tunable aminofunctionalized periodic mesoporous organosilica@MXene/Ni structures for enhanced microwave absorption performance

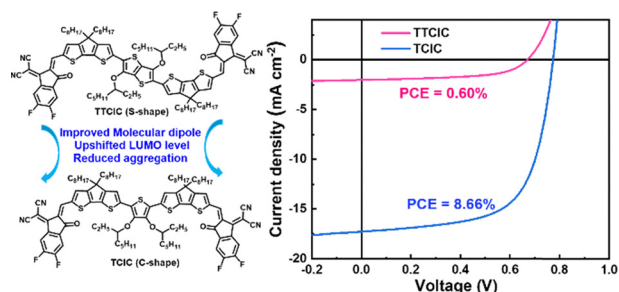
Yiran Sun, Sikai Dai, Yu Fan, Jiangyu Fang, Xingyue Zhou, Ruoqi Wang, Qixin Zhuang, Jun Qian and Peiyuan Zuo*



21066

The impact of axisymmetric and centrosymmetric molecular architectures in non-fused ring electron acceptors on photovoltaic performance

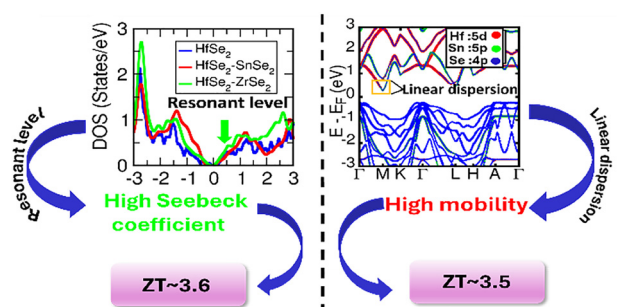
Chenxu Yu, Kun Li, Yanqi Shi, Yuan Yao, Qian Xie, Jiayu Li, Jiang-Yang Shao, Yishi Wu, Qing Liao, Cunbin An* and Hongbing Fu*



21075

Role of p–p and d–p orbital interactions in the electronic structure and phonon localization driving high thermoelectric performance

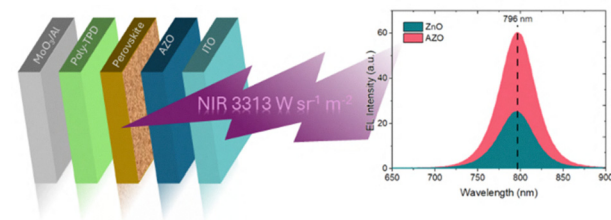
Tanu Choudhary, Shivani Vinod and Raju K. Biswas*



21090

Ultra-high brightness near-infrared perovskite light-emitting diodes enabled by aluminum-doped zinc oxide electron transport layers

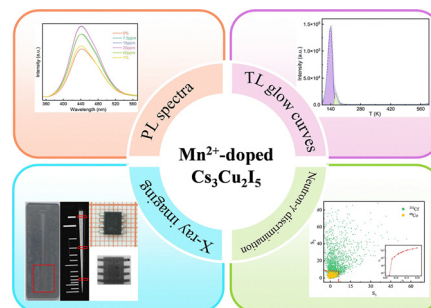
Johan Iskandar, Chih-Yi Liu, Mao-Cheng Huang, Chutipol Harnthanasak, Galing Murokinas, Yi-Sheng Chen, Didik Notosudjono, Chih-Chien Lee and Shun-Wei Liu*



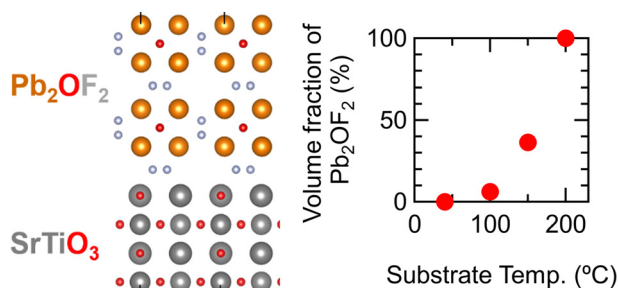
21098

Mn²⁺-doped Cs₃Cu₂I₅ halides and their application in high resolution X-ray imaging and thermal neutron detection

Yuzhu Li, Jun Chen, Xunsheng Zhou, Qi Wu, Lu Yao* and Cailin Wang*



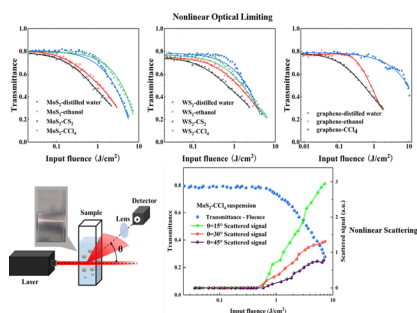
21106



Fluoride-target-assisted growth of Pb_2OF_2 oxyfluoride films with anion ordering and high dielectric constant

Rion Muraki, Ko Marunouchi, Weikun Zhou, Akira Chikamatsu, Hiromichi Ohta and Tsukasa Katayama*

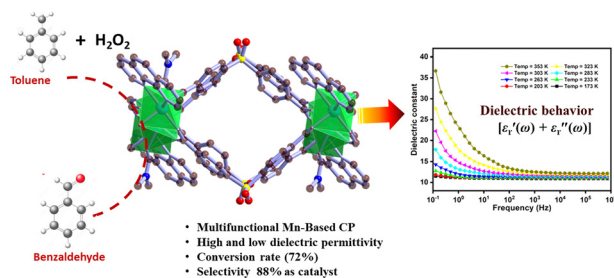
21111



Research on nonlinear optical limiting of two-dimensional materials suspensions

Aoxiang Meng, Yuangang Lu,* Jian Huang, Biao Dong, Chengyu Zhang and Chongjun He*

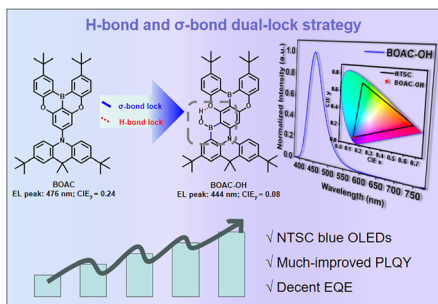
21122



A multifunctional manganese coordination polymer with polar solvent-responsive tunable dielectric properties and selective catalysis

Balendra,* Rahul Kalita, Mahboob Ali, Sanyukta, Sevi Murugavel and Kuntal Manna

21132



A quasiplanar TADF emitter employing a dual-locking strategy enables efficient solution-processed deep blue OLEDs

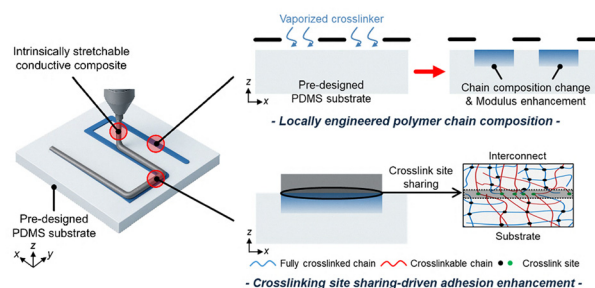
Hai-Long Zhu, Hui Wang,* Xiao-Chun Fan, Xin Xiong, Zhang-Li Cheng, Jia Yu,* Kai Wang* and Xiao-Hong Zhang*



21137

Crosslinking site sharing-driven interface engineering to enhance adhesion between PDMS substrates and Ag–PDMS conductors

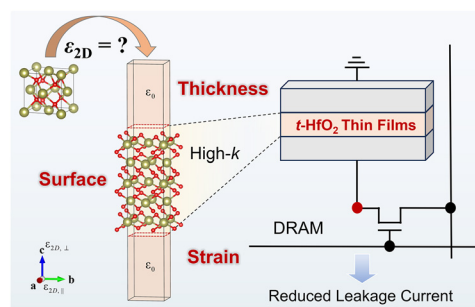
Dong Hyoun Park, Dong Won Lee, Hoon Yeub Jeong, Jun-Chan Choi* and Seungjun Chung*



21145

Engineering the dielectric properties of *t*-HfO₂ thin films using first-principles calculations

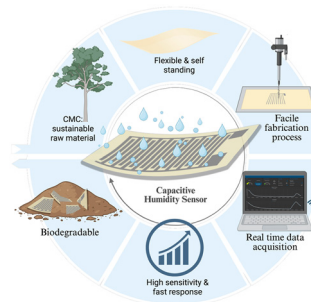
Zhe Su, Shuai Chen, Ruiling Gao, Yongchang Li, Guodong Zhao, Yingtao Yang, Mengyuan Yang, Musen Li, Hui Zhang,* Dongdong Li* and Wei Ren*



21154

A highly sensitive, biodegradable capacitive humidity sensor with aerosol jet printed electrodes on a self-standing CMC film

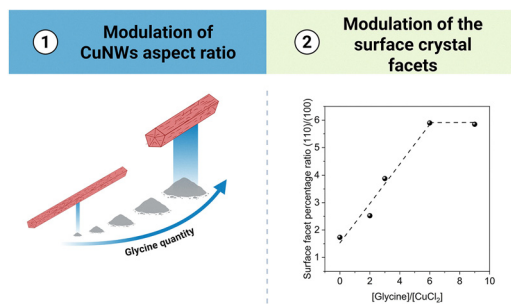
Anand Vyas,* Sun-pui Ng and Ifrah Anum



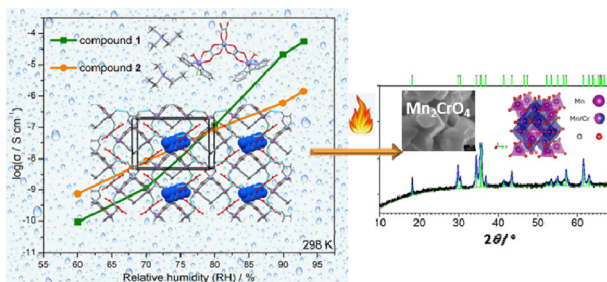
21170

Engineering morphological features and surface steps in ultrathick penta-twinned copper nanowires

Andrea Conte, Sabrina Antonello, Marco Baron, Sara Bonacchi* and Alessandro Aliprandi*



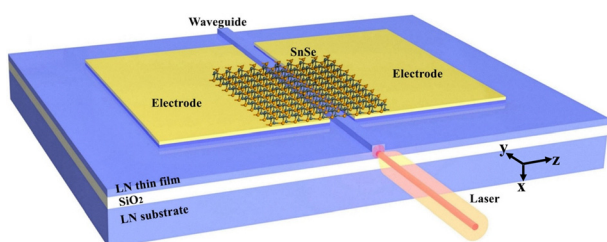
21179



Water-assisted proton conductivity and a magnetic study of heterotrinnuclear oxalate-bridged compounds: molecular precursors for the Mn_2CrO_4 spinel

Ana Lozančić, Sanja Burazer, Tobias Wagner, Krešimir Molčanov, Damir Pajić, Lidija Androš Dubraja, Michael Tiemann and Marijana Jurić*

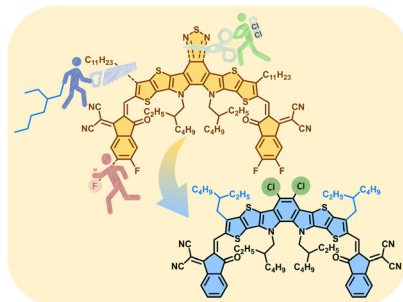
21196



A waveguide-integrated SnSe photodetector on a lithium niobate thin film with high responsivity, fast response, and self-powered capability

Huangpu Han, Fan Yang, Qingyun Li, Shuangchen Ruan and Bingxi Xiang*

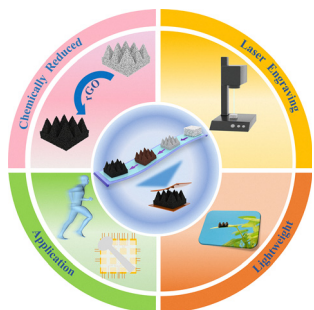
21205



Medium bandgap A-DA'D-A type small molecule acceptors prepared using synergetic modification strategies enable high-performance organic solar cells

Yuechen Li, Yufei Gong, Xiaojun Li,* Haozhe He, Shucheng Qin, Jinyuan Zhang, Jianqi Zhang, Fei Pan, Lei Meng and Yongfang Li

21215



Flexible capacitive pressure sensor with chemically reduced graphene oxide on a pyramid-structured melamine sponge array by laser engraving

Kaixin Li, Tianlong Xu, Jingyu Zhou, Dawei Zhang and Bin Sheng*



CORRECTIONS

21227

Correction: Local structure regulation of multiple upconversion emission selectivity in highly doped lanthanide-based core–shell nanocrystals

Yuxuan Qiu, Songbin Liu,* Junjie Wang, Yushuang Peng, Yutian Yu, Hongyuan Fei, Fengli Yang, Jiaqing Peng, Junjun Tan and Xinyu Ye*

21229

Correction: Novel 2D-ferroic nanocomposite anti-reflection screen-printed films for EMI shielding: an experimental and theoretical study

Vaishnavi Khade, Avanish Babu Thirumalasetty, C. Krishnamoorthi, Teresa Cuberes and Madhuri Wuppulluri*

