

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 Youyong Li, Yang Song *et al.*, pp. 14833–14843.

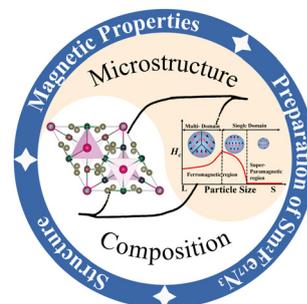
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REVIEWS

14714

Composition and microstructural control of $\text{Sm}_2\text{Fe}_{17}\text{N}_3$ powders: a promising candidate for next-generation permanent magnets

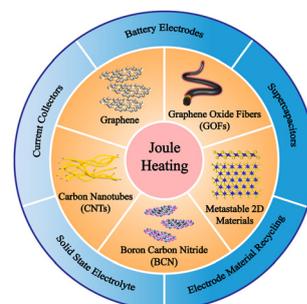
Junjie Xu, Yuhao Yi, Boqian Jia, Hang Xue, Guang Tian, Zhenhui Ma and Yanglong Hou*



14729

An overview of Joule heating in energy storage materials and applications

Jiahui Yuan, Yizi Zhang, Fuzhou Chen and Zhengrong Gu*



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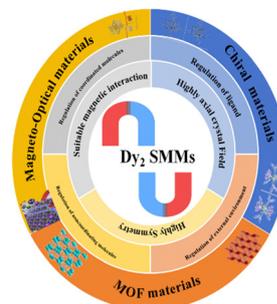
Fundamental questions
Elemental answers

REVIEWS

14754

Recent advances of dinuclear dysprosium-based single-molecule magnets: from mechanisms to application

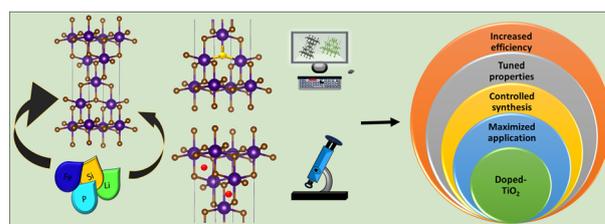
Jiale Tian, Jiyuan Du, Botan Li, Haibo Zhang, Yiyi Zhang, Lin Sun* and Pengtao Ma*



14774

Recent advances in elemental doping and simulation techniques: improving structural, photophysical and electronic properties of titanium dioxide

Yash Taneja, Dheeraj Dube and Ranbir Singh*

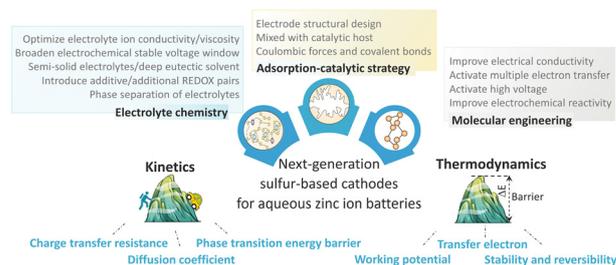


PERSPECTIVE

14809

Sulfur-based cathodes for aqueous zinc ion batteries

Yuwei Zhao, Jiexiong Zhu, Chuan Li, Shaocce Zhang, Rong Zhang, Pei Li, Hu Hong, Qingshun Nian, Haiming Lv (Lyu) and Chunyi Zhi*



COMMUNICATIONS

14816

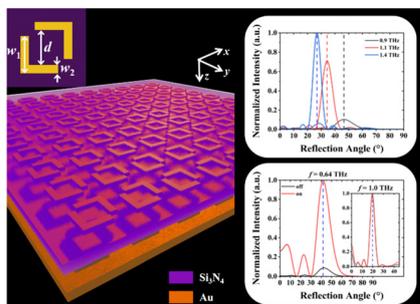
Impact of pyrene orientation on the electronic properties and stability of graphene ribbons

Tanner Smith, Karl Thorley, Kevin Dimmitt, Sean Parkin, Oksana Ostroverkhova and John Anthony*



COMMUNICATIONS

14823

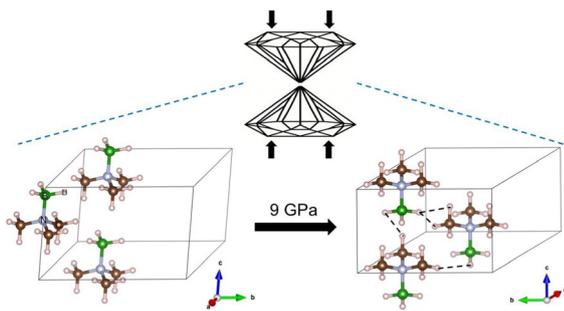


Broadband polarization conversion metasurface for beam deflection with switchable characteristics

Yuhao Liang, Yuxin Liu, Weikai Huang and Yu-Sheng Lin*

PAPERS

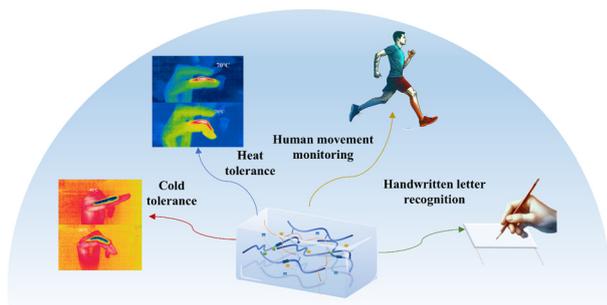
14833



Pressure mediated phase transition and dihydrogen bonding formation in trimethylamine borane

Rongfeng Guan, Jingyan Liu, Aditya Kutty, Zhihao Yu, Yujin Ji, Youyong Li* and Yang Song*

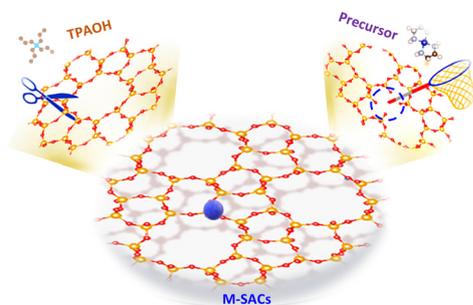
14844



Enhanced high-strength, temperature-resistant PVA hydrogel sensors with silica/xanthan/glycerol for posture monitoring and handwriting recognition using deep learning

Fanchen Luo, Yafei Qin,* Xi Wang, Xuanmo Zhao, Kedi Chen and Weichen Huang

14858



General synthesis for supported single-atom catalysts using hydroxyl nests in zeolites

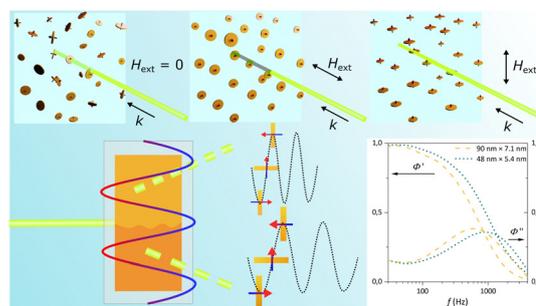
Qiang Liu, Jingnan Wang, Kaiheng Zhao, Yongan Yang and Xi Wang*



14865

Hard magnetic colloidal nanoplates with tunable size for magneto-optical applications

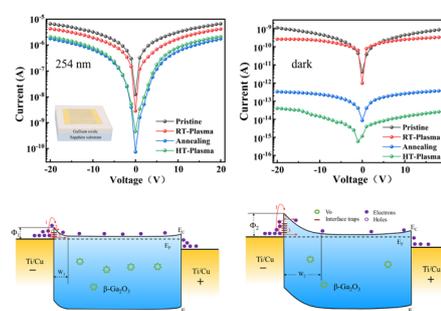
Jianing Chen, Jingtong Duan, Evgeny O. Anokhin, Zitian Xia, Roman D. Svetogorov, Anastasia A. Semina, Roy R. Nygaard, Artem A. Eliseev,* Evgeny A. Gorbachev* and Lev A. Trusov*



14876

Ultralow dark current and high specific detectivity of Ga₂O₃-based solar-blind photodetector arrays realized via post-annealing in oxygen plasma

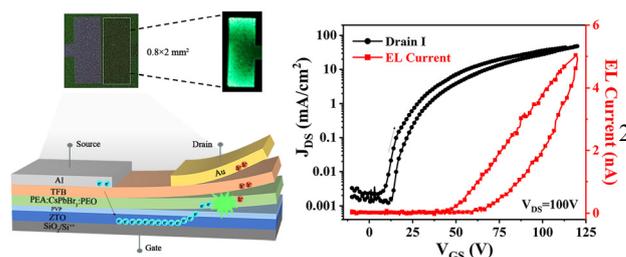
Lingjie Bao, Zheng Liang, Siliang Kuang, Bohan Xiao, Kelvin H. L. Zhang, Xiangyu Xu* and Qijin Cheng*



14887

Enhanced light-emitting transistors utilizing multi-dimensional CsPbBr₃ perovskite films and PVP-modified ZTO semiconductor layers

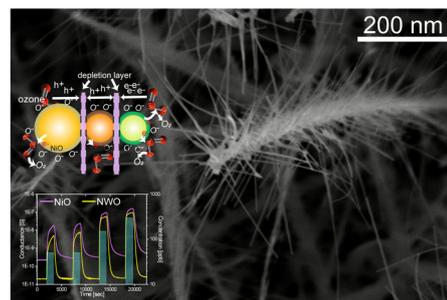
Xingyu Zhang, Min Guo, Jia Li, Bo Song, Fanwen Meng, Zitong Wang, Zhidong Lou, Yanbing Hou, Yufeng Hu* and Feng Teng*



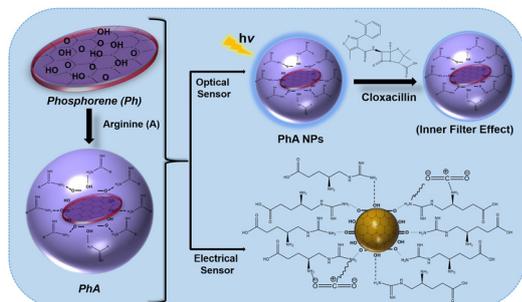
14893

3D-(p/p/n) NiO/NiWO₄/WO₃ heterostructures for the selective detection of ozone

Navpreet Kaur* and Elisabetta Comini



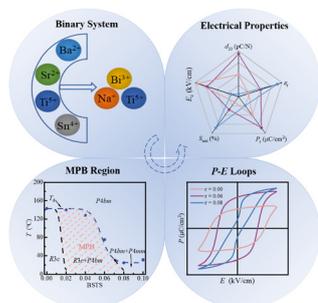
14902



Amino acid functionalized phosphorene: an optical sensing platform for the detection of antibiotic residues in milk and a clay based electrical CO₂ sensor

Nasrin Sultana, Palash Jyoti Medhi and Neelotpal Sen Sarma*

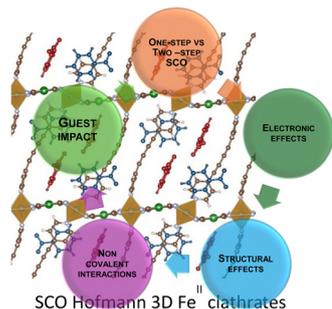
14915



Relaxor induced performance tuning around morphotropic phase boundary in Ba_{0.86}Sr_{0.14}Ti_{0.94}Sn_{0.06} modified BNT-based ceramics

Xilong Song, Jiaqing Feng, Yiting Zhang, Zixin Liu, Chen Liao, Lin Zhao, Jian Ma, Bo Wu and Hong Tao*

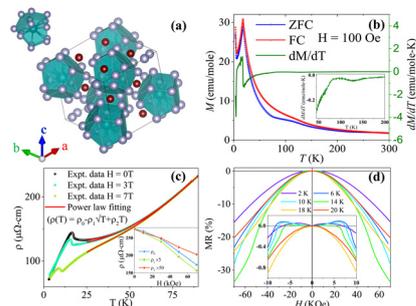
14924



Guest-dependent spin transitions in Hofmann-like Fe^{II} SCO metal–organic frameworks: hints from quantum chemistry calculations

David Arias-Olivares, Rocío Sánchez de Armas and Carmen J. Calzado*

14936



Unraveling extraordinary magnetoresistance in GdFe₂Al₁₀: a comprehensive exploration of transport and magnetism for technological applications

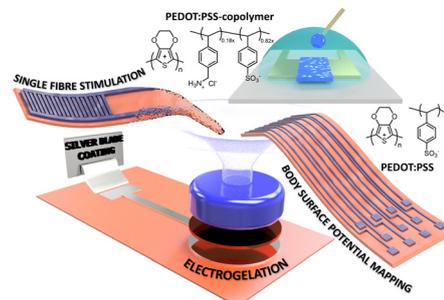
Koustav Pal,* Suman Dey and I. Das



14944

Electrogelation of PEDOT:PSS and its copolymer for bioelectronics

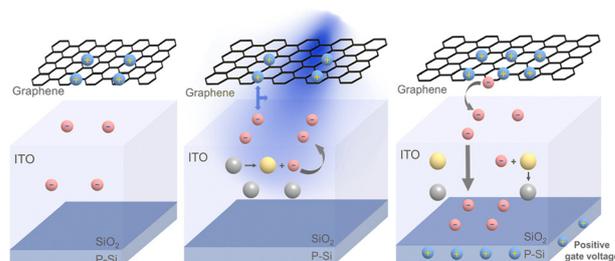
Christopher Slaughter, Santiago Velasco-Bosom, Xudong Tao, Ruben Ruiz-Mateos Serrano, Stefany Kissovsky, Ryo Mizuta, Daniele Mantione, Scott T. Keene, George G. Malliaras* and Antonio Dominguez-Alfaro*



14955

Graphene enhanced charge transfer in ITO optoelectronic synapses for artificial vision systems

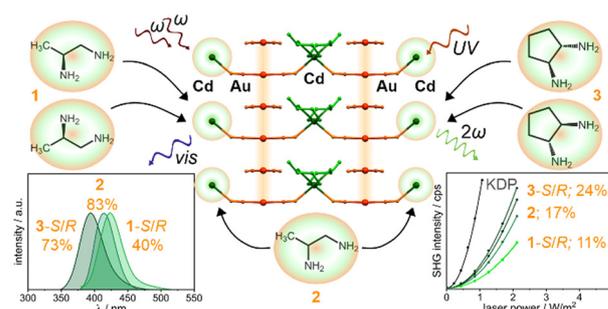
Jiran Liang,* Xuan Yu,* Chuantong Cheng,* Beiju Huang,* Zidong Wang and Liting Huang



14964

Chiral cadmium–amine complexes for stimulating non-linear optical activity and photoluminescence in solids based on aurophilic stacks

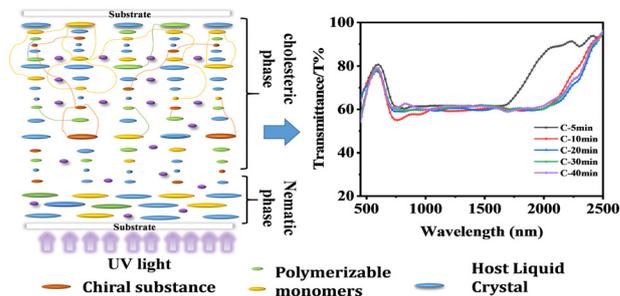
Kseniia Boidachenko, Michal Liberka, Junhao Wang, Hiroko Tokoro, Shin-ichi Ohkoshi and Szymon Chorazy*



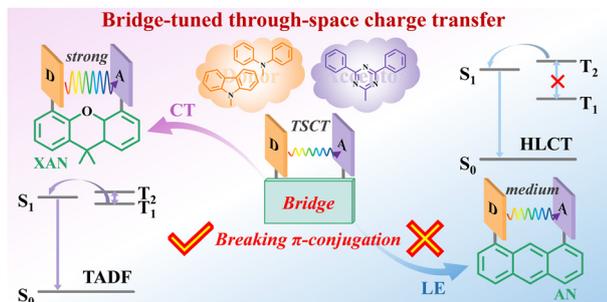
14978

Preparation and properties of broadband reflective cholesteric-phase liquid crystal films based on chiral and achiral bilayer structures

Yazhen Xu, Wanli He,* Xiaolong Sheng, Zhou Yang, Hui Cao and Dong Wang



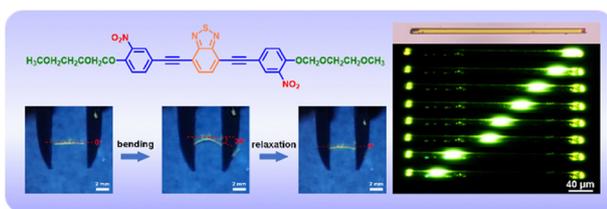
14987



Bridge-tuned through-space charge transfer for TADF and HLCT emissions

Tian Tian, Jiaqi Li, Dongxue Guo and Houyu Zhang*

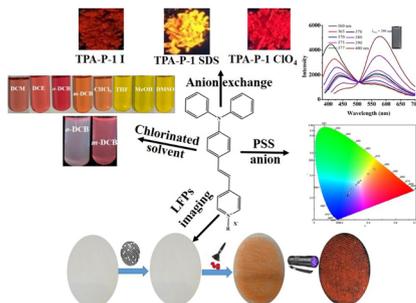
14997



Coordination of hydrogen-bonding and π - π stacking induced elasticity and efficient optical-waveguiding in 4,7-bis(phenyl ethynyl)benzo[c][1,2,5] thiazazole-based crystals

Geng Li, Yan Xia, Kunpeng Guo, Jie Li,* Yongli Yan,* Yoshimitsu Sagara and Yongzhen Yang*

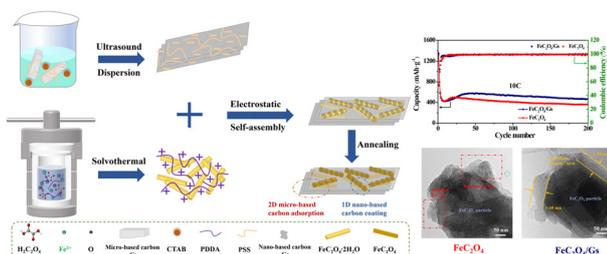
15004



Red-emitting ionic fluorophores: anion-dependent tunable fluorescence, chlorinated solvent sensing, white light emission and latent fingerprinting

Sasikala Ravi, Subramanian Karthikeyan, Anuradha Mohitkar, Subbalakshmi Jayanty, Mehboobali Pannipara, Abdullah G. Al-Sehemi, Dohyun Moon* and Savarimuthu Philip Anthony*

15012



Achieving super lithium storage of FeC₂O₄/Gs composites with dual-level structured graphene sheets through electrostatic adherence

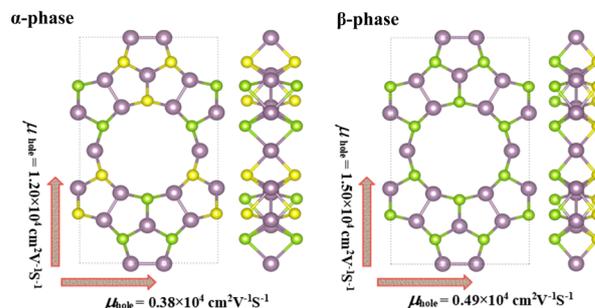
Zengmou Li, Qing Zhao, Keyu Zhang,* Dingfang Cui, Keqi Chen, Yusheng Gong, Shaoze Zhang, Yin Li, Junxian Hu, Bin Yang and Yaochun Yao*



15024

Prediction of high carrier mobility for novel Janus $\text{Mo}_8\text{S}_6\text{Se}_6$ monolayers with different phases: first principles calculations

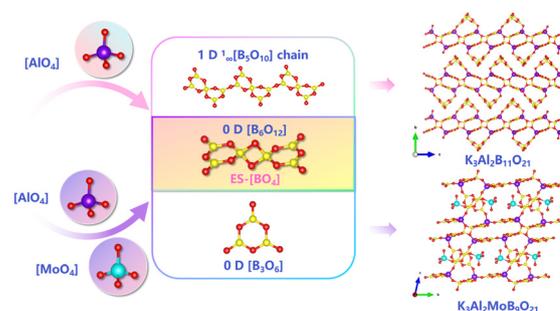
Yi Peng, Xuli Li, Xinyi Tang, Ju Jiao, Qianqian Zhu* and Juexian Cao*



15032

"One stone two birds" design of borates featuring edge-sharing $[\text{BO}_4]$ and different B–O configurations in one structure utilizing covalent tetrahedra

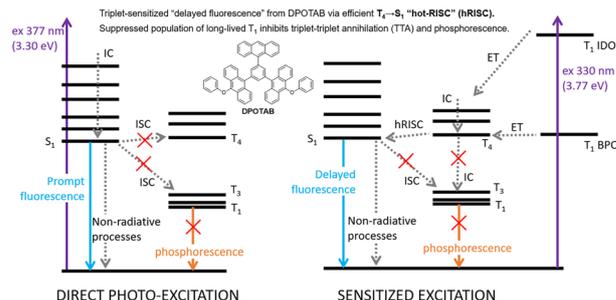
Haoran Wang, Jiahao Jiao, Abudukadi Tudi, Shilie Pan* and Min Zhang*



15039

Reverse intersystem crossing from high-level triplet excited electronic states of fluorescent organic molecules

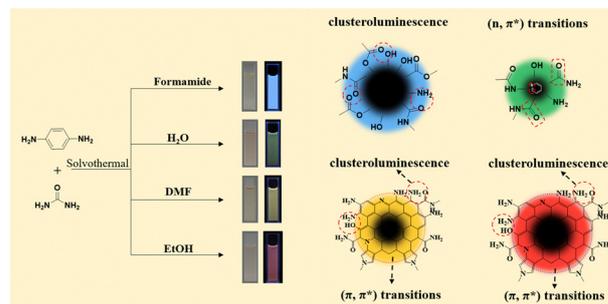
Qianqian Xu,* Andrew D. Scully, Melissa A. Skidmore, Hua Ke,* Xiaojun Wu, Jie Li, Zhicheng Zhang, Xiaochang Li and Kazunori Ueno*



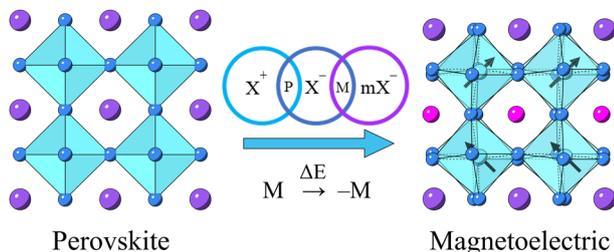
15051

Solvent-regulated multicolor-emissive carbon dots and their application in multicolor light-emitting diodes

Yaling Wang, Genghong Huang, Zishan Yan, Guangqun Cao, Wenjing Zheng, Shengliang Hu, Bin Liu* and Yongzhen Yang*



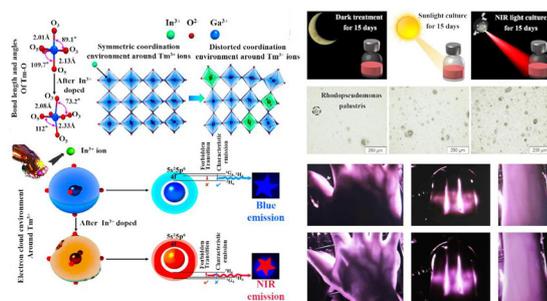
15058



Symmetry-informed design of magnetolectric coupling in the manganite perovskite $\text{CeBaMn}_2\text{O}_6$

Struan Simpson, Cameron A. M. Scott, Fernando Pomiro, Jeremiah P. Tidey, Urmimala Dey, Fabio Orlandi, Pascal Manuel, Martin R. Lees, Zih-Mei Hong, Wei-tin Chen, Nicholas C. Bristowe and Mark S. Senn*

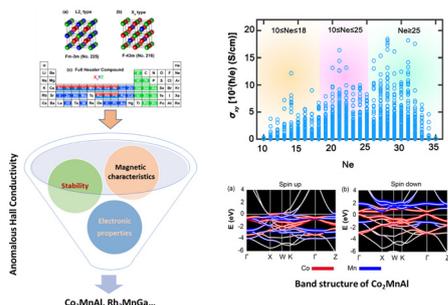
15070



Unlocking non-characteristic near-infrared emission of rare earth ions for photosynthetic bacteria cultivation and vein imaging applications

He Lin, Shuangqiang Fang,* Tianchun Lang, Jiali Yu, Haoliang Cheng, Jiaqi Ou, Zhijie Ye, Renjie Xu, Xiulan Shui, Haolin Qu and Le Wang*

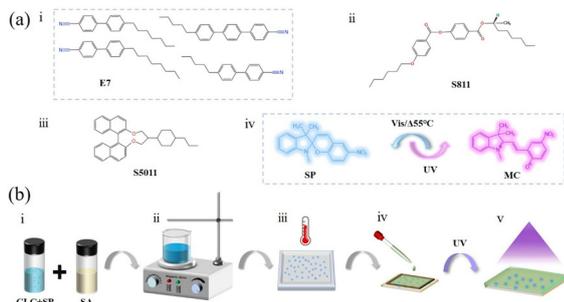
15082



Orbital-engineered anomalous Hall conductivity in stable full Heusler compounds: a pathway to optimized spintronics

Quynh Anh T. Nguyen, Thi H. Ho, Seong-Gon Kim, Ashwani Kumar and Viet Q. Bui*

15092



A multidimensional anti-counterfeiting dynamic flexible label based on light/thermal responsive CLC microspheres

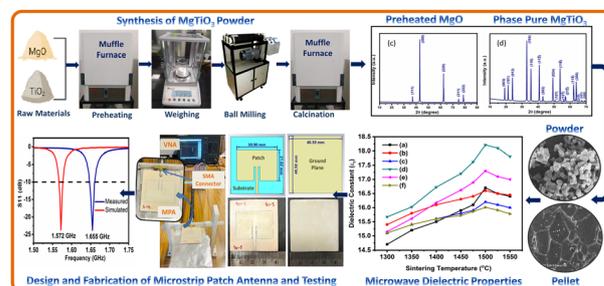
Qingxiu Wang, Dong Zhou, Kai Gong, Xinpeng Lv, Peng Li* and Yongjun Liu*



15101

Preparation of phase-pure MgTiO₃ microwave dielectric ceramics for GPS antenna application

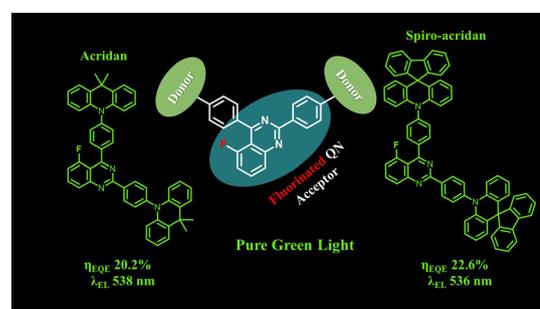
Dhananjay Mali, Naveenraj Rajaram, Ruchita Vehale, Manish Shinde,* Govind Umarji and Sunit Rane*



15112

Modification of thermally activated delayed fluorescence emitters comprising fluorinated acridan–quinazoline and spiroacridan–quinazoline moieties for efficient green OLEDs

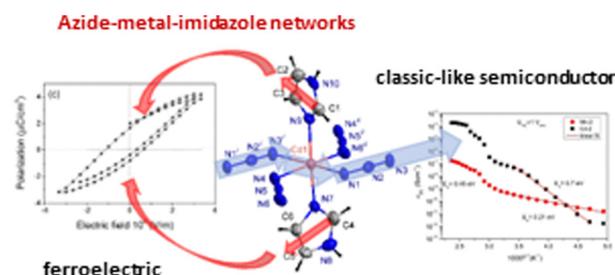
Fu-En Szu, Shao-An Chen, Yin-Yin Yu, Jiun-Haw Lee,* Tien-Lung Chiu* and Man-kit Leung*



15119

The influence of azide and imidazole on the properties of Mn- and Cd-based networks: conductivity and nonlinear phenomena

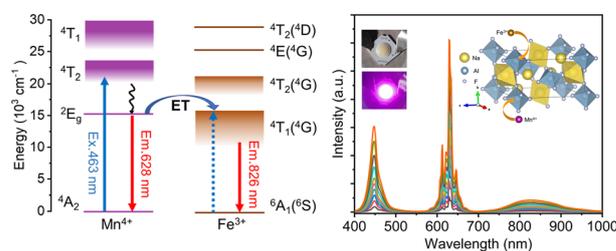
Monika Trzebiatowska,* Dorota A. Kowalska, Agnieszka Cizman, Natalia A. Wójcik, Ryszard J. Barczyński, Adam Piłkuł, Jan K. Zareba, Marcin Palewicz, Tomasz Piasecki, Krystian Roleder, Marek Gusowski and Mirosław Mączka



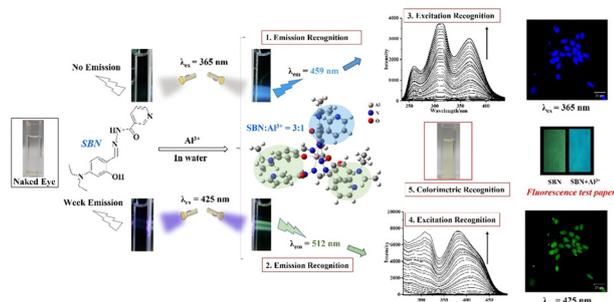
15137

Energy transfer-induced blue light-excited broadband near-infrared luminescence in fluoride Na₃AlF₆:Mn⁴⁺,Fe³⁺

F. Q. He, E. H. Song* and Q. Y. Zhang*



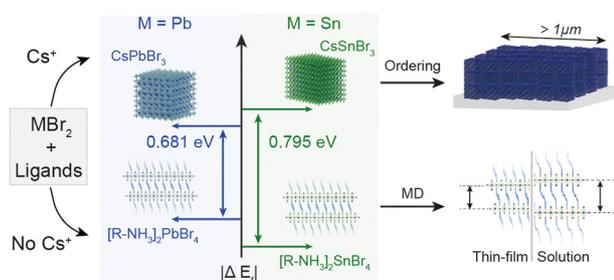
15144



An ultra-sensitive fluorescence multi-channel and colorimetric probe based on salicylaldehyde hydrazone for Al^{3+} recognition with a 3 : 1 binding ratio

Zhongyan Zhang, Sha Wang, Muxi Wang, Hongming Li, Qingjian Liang, Jiawei Tang, Jian Sun,* Li-Jun Ma* and Hong Liu

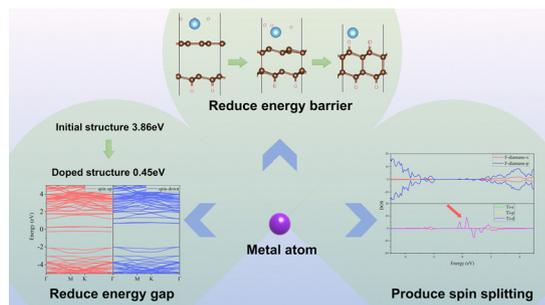
15152



Growth mechanism of oleylammonium-based tin and lead bromide perovskite nanostructures

Kushagra Gahlot, Julia N. Kraft, Manuel Pérez-Escribano, Razieh M. Koushki, Majid Ahmadi, Enrique Orti, Bart J. Kooij, Giuseppe Portale, Joaquín Calbo and Loredana Protesescu*

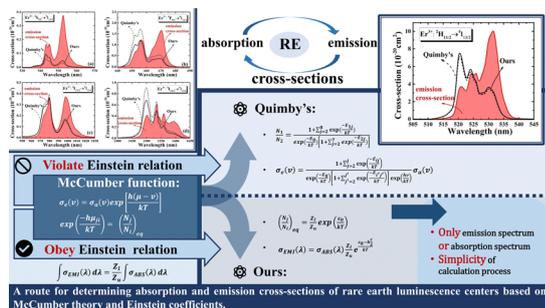
15163



Electronic structures of diamane doped with metal atoms

Shiyang Fu, Qiyuan Yu, Junsong Liu, Nan Gao* and Hongdong Li*

15173



A route for determining absorption and emission cross-sections of rare-earth luminescence centers based on McCumber theory and Einstein coefficients

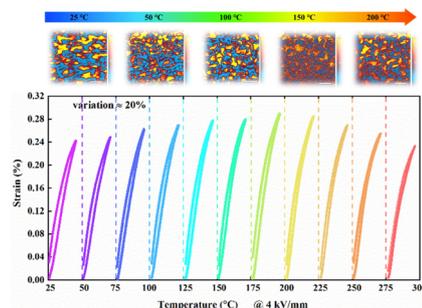
Xuezhu Sha, Xin Chen, Duan Gao, Li Wang, Yanqiu Zhang, Xizhen Zhang, Jinsu Zhang, Sai Xu, Yongze Cao, Yichao Wang, Xiangping Li, Hongquan Yu, Baojiu Chen* and Wei Chen*



15180

Temperature-insensitive high piezoelectricity in a $(\text{Bi}_{0.5}\text{K}_{0.5})\text{TiO}_3\text{-PbTiO}_3\text{-PbZrO}_3$ ternary system

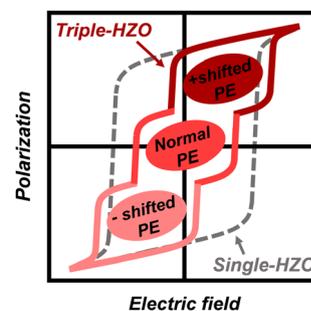
Shengjie Yan, Siyun Di, Mingyu Yang, Yueyun Zhang,*
Zheng Sun and Hui Liu*



15188

A six-level ferroelectric storage cell based on a bidirectional imprint field

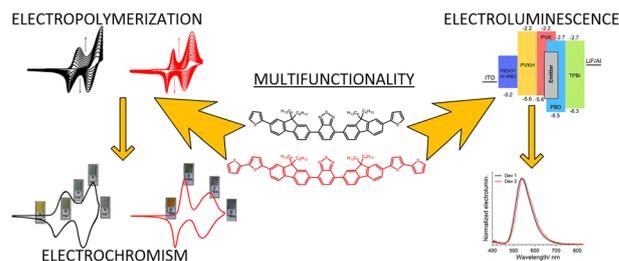
Chaeheon Kim, Junghyeon Hwang, Hunbeom Shin,
Jinho Ahn* and Sanghun Jeon*



15201

The impact of structural modification on the electrochromic and electroluminescent properties of D–A–D benzothiadiazole derivatives with a fluorene linker and (Bi)thiophene units

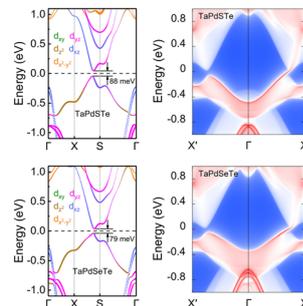
Roman Ganczarczyk, Renata Rybakiewicz-Sekita,
Magdalena Zawadzka, Piotr Pander, Przemysław Ledwon,
Dawid Nastula and Sandra Pluczyk-Matek*



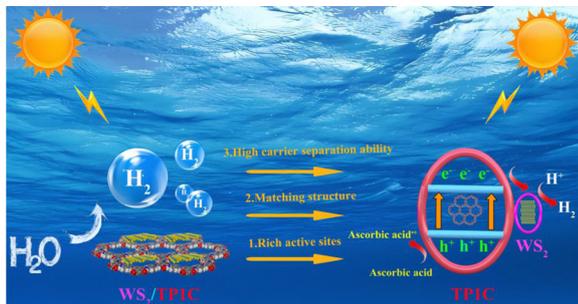
15215

The intrinsic quantum anomalous Hall effect in TaPdXTe ($X = \text{S}, \text{Se}$) monolayers

Haofeng Wei, Yanzhao Wu, Junwei Tong, Li Deng,
Xiang Yin, Zhijun Zhang and Xianmin Zhang*



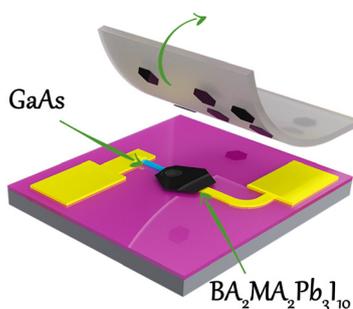
15224



Rational design of dimensionally matched 2D/2D COF based photocatalysts for highly efficient noble-metal-free solar energy catalysis

Haijun Hu, Xiaodong Sun,* Hui Li, Hongwei Huang and Tianyi Ma*

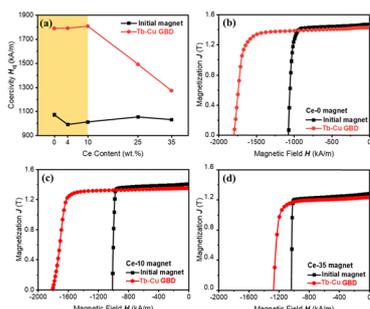
15232



Van der Waals integration of phase-pure 2D perovskite sheets and GaAs nanowires for self-driven photodetector

Zhi-Hong Zhang, Xiao-Bing Hou, Shang-Heng Li, Zhi-Peng Wei,* Jin-Chao Wei, Peng Li and Shuang-Peng Wang*

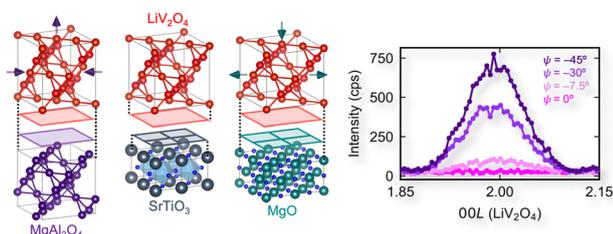
15239



Correlation between Ce content and Tb-Cu grain boundary diffusion efficiency in Ce-containing Nd-Fe-B magnets

Zhigao Yu, Shiyong Chen, Chaochao Zeng, Hongya Yu, Yaxiang Wu, Jiayi He* and Zhongwu Liu*

15249



Heteroepitaxial tuning of resonant forbidden reflections in a spinel

Ryosuke Oka, Minu Kim, Peter Wochner, Sonia Francoual, Thomas T. M. Palstra, Hidenori Takagi and Dennis Huang*



CORRECTION

15257

Correction: Heteroepitaxial tuning of resonant forbidden reflections in a spinel

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