## Journal of Materials Chemistry C

Materials for optical, magnetic and electronic devices

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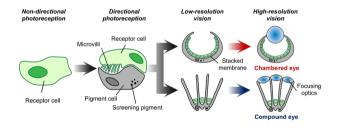
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#### Evolution of natural eyes and biomimetic imaging devices for effective image acquisition

Min Su Kim, Ji-Eun Yeo, Hyeonseung Choi, Sehui Chang, Dae-Hyeong Kim\* and Young Min Song\*



#### 12105

#### Metal halide perovskite single crystal growth and application for X-ray detectors

Wenjun Wang, Molang Cai, Xuepeng Liu, Kangyu Ji, Xuechao Yu and Songyuan Dai\*

### Perovskite Single Crystals **Synthetic Routes** Application for BG X-ray detector Crystallization Mechanism

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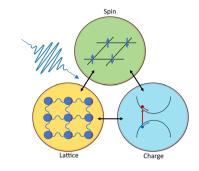


#### **REVIEWS**

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Disentangle electronic, structural, and spin dynamics using transient extreme ultraviolet spectroscopy

Michael A. Yackovich, Matthew W. Locklear and Hanzhe Liu\*

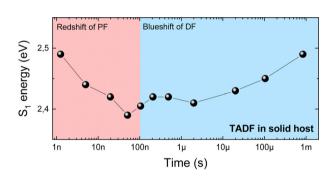


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Understanding the temporal dynamics of thermally activated delayed fluorescence in solid hosts

Tomas Serevičius,\* Rokas Skaisgiris, Sigitas Tumkevičius, Jelena Dodonova-Vaitkūnienė and Saulius Juršėnas

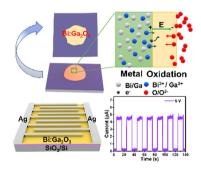


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Liquid metal-based printing synthesis of bismuth-doped gallium oxide and its application for a photodetector

Kun Huang, Lihao Guo, Li Liu, Ximeng Chen, Chen Su, Peipei Li, Zhiyong Deng,\* Weiwei Wu\* and Lu Zhang\*

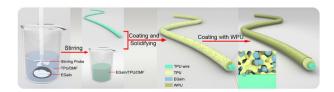


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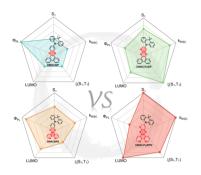
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Recyclable EGaIn/TPU sheath-core fibres for superelastic electronics and sensing applications

Ziqi Wen, Jingyu Zhou, Shanshan Zhao, Shangbi Chen, Dawei Zhang and Bin Sheng\*



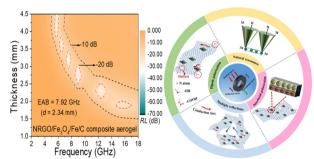
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## The influence of nitrogen doping of the acceptor in orange-red thermally activated delayed fluorescence emitters and OLEDs

Changfeng Si, Ya-Nan Hu, Dianming Sun, Kai Wang, Xiao-Hong Zhang\* and Eli Zysman-Colman\*

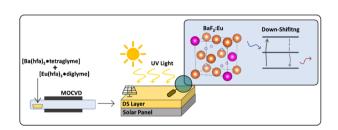
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Synthesis of nitrogen-doped graphene aerogels modified by magnetic Fe<sub>3</sub>O<sub>4</sub>/Fe/C frameworks as excellent dual-band electromagnetic absorbers

Baohua Liu, Jing Xu and Ruiwen Shu\*

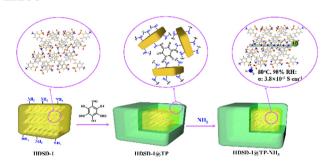
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## Eu<sup>3+</sup> activated BaF<sub>2</sub> nanostructured thin films: fabrication and a combined experimental and computational study of the energy conversion process

Francesca Lo Presti, Anna Lucia Pellegrino, Emil Milan, Eros Radicchi, Adolfo Speghini\* and Graziella Malandrino\*

#### 12206



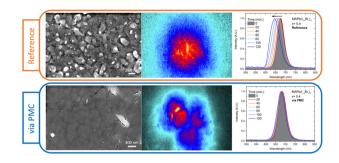
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Qianqian Yang, Xinyu Li, Changsong Xie, Zhen Wang, Zhihui Kong, Jianjian Yang, Zixi Kang, Rongming Wang\* and Daofeng Sun

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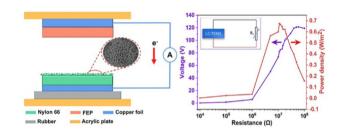
Francesco Bisconti, Mauro Leoncini, Gianluca Bravetti, Antonella Giuri, Laura Polimeno, Sonia Carallo, Silvia Colella, Lorenzo Gatto, Federico Grandi, Eugenio Cinquanta, Caterina Vozzi, Salvatore Gambino, Lorenzo Dominici\* and Aurora Rizzo\*



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#### A PA66 lamellar crystal film with excellent triboelectric performance in vertical contact separation mode

Jincheng Liu, Po Ji, Zixun Wang, Xianglan Liu, Yongxing Lin,\* Xiangyang Li, Lin Chen, Xingyou Tian and Sihai Luo\*



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#### Boltzmann-type cryogenic ratiometric thermometry based on Nd<sup>3+</sup>-doped LuVO<sub>4</sub> phosphors

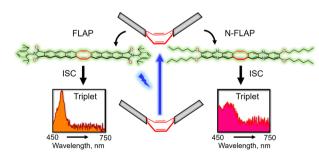
Alexey A. Kalinichev, Elena V. Afanaseva, Evgenii Yu. Kolesnikov and Ilya E. Kolesnikov\*



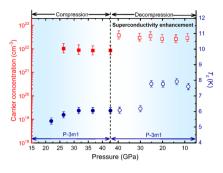
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Sunandita Paul, Hidetsugu Kitakado, Kensuke Suga, Ryota Kotani, Nilanjan Dey, Ravindra Venkatramani, Eduard Matito, Shohei Saito\* and Jyotishman Dasgupta\*



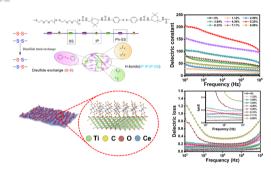
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#### Origin of the decompression driven superconductivity enhancement in SnSe<sub>2</sub>

Shihui Zhang, Resta A. Susilo, Shun Wan, Wen Deng, Bin Chen\* and Chunxiao Gao\*

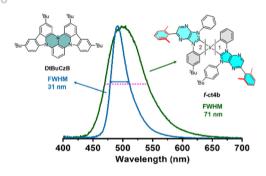
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#### Polysulfide polyurethane-urea-based dielectric composites with CeO2-loaded MXene exhibiting high self-healing efficiency

Ying-Jie Ma, Jing-Wen Wang,\* Guo-Chao Zhuang, Yang Zhang, Zi-Long Zhang, Ming-Yue Zhang and Guang-Bin Ji\*

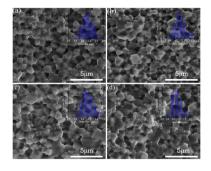
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#### Peripheral engineering of Ir(III) emitters with imidazo[4,5-b]pyrazin-2-ylidene cyclometalates for blue organic light emitting diodes

Jie Yan, Yixin Wu, I-Che Peng, Yi Pan, Shek-Man Yiu, Ken-Tsung Wong, Wen-Yi Hung,\* Yun Chi\* and Kai-Chung Lau\*

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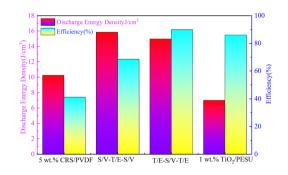
#### Ultrahigh power density and energy storage density of Ti-free Ca-doped (Pb,La) (Zr,Sn)TaO<sub>3</sub> antiferroelectric ceramics

Han Zhao, Ran Xu,\* Meng Jiao Wang, Xiao Zhi Wang, Qing Shan Zhu and Zhuo Xu\*

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Design of heterogeneous sandwich-structured dielectric composites with excellent charge-discharge efficiency and energy storage density

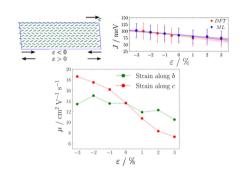
Yue Zhang, Xin He, Sen Li, Yongquan Zhang, Tiandong Zhang, Xuan Wang, Cai Chen\* and Changhai Zhang\*



#### 12297

Towards a fast machine-learning-assisted prediction of the mechanoelectric response in organic crystals

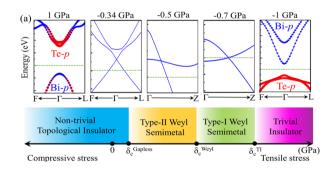
Daniele Padula,\* Leonardo Barneschi, Andrea Peluso, Tommaso Cinaglia and Alessandro Landi\*



#### 12307

Novel magnetic topological insulator FeBi<sub>2</sub>Te<sub>4</sub> with controllable topological quantum phase

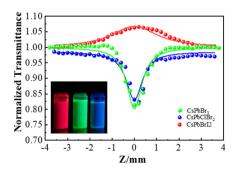
Wen-Ti Guo, Ningjing Yang, Zhigao Huang and Jian-Min Zhang\*



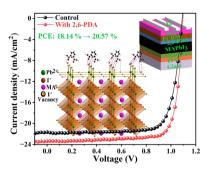
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The nonlinear absorption mechanism of CsPbX<sub>3</sub> quantum dots

Shuyu Zeng, Yucong Ji, Weili Shen, Hengyang Xiang, Tao Tao, Tao Xie and Jun Chen\*



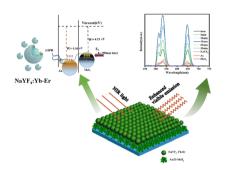
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#### Synergistic passivation with multi-dentate 2,6-pyridinedicarboxylic acid for high-performance perovskite solar cells

Yi-Lin Li, Xing Liu, Lei Jin, Jian Zhou\* and Wensheng Fu\*

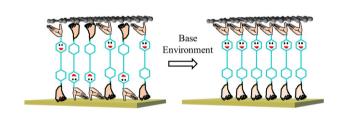
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#### A plasmonic hetero-structure using charge transfer effect improved LSPR for enhanced up-conversion luminescence

Jing Xu, Yuheng Zhang, Jun Yan, Yuting Wu, Yusheng Xu, Yihui Liao, Yong Yang, Dacheng Zhou, Qi Wang\* and JianBei Qiu\*

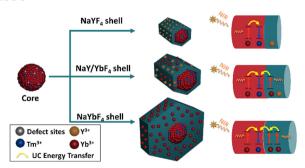
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#### Orientation preference control: a novel approach for tailoring molecular electronic functionalities

Xintai Wang, Xiaoying Li,\* Shanglong Ning and Ali Ismael\*

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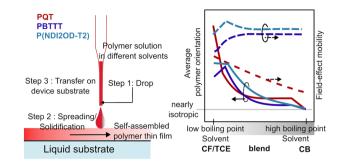
#### Controllable and tuneable growth of $NaYbF_4:Tm(0.5\%)Fe(5\%)@Na(Yb/Y)F_4-core@shell$ structures and the effect of their geometry on upconversion luminescence

Elena Ureña-Horno, Keqing Liu and Marco Giardiello\*

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The role of solvents in the microstructure and charge transport of semiconducting polymer films prepared at the air-liquid interface

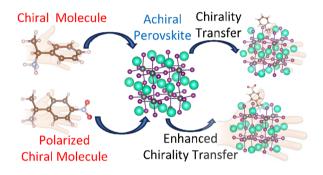
Manish Pandey,\* Jumpei Toyoda, Shubham Sharma, Yongyoon Cho, Hiroaki Benten, Shyam S. Pandey and Masakazu Nakamura\*



#### 12374

Molecular properties controlling chirality transfer to halide perovskite: computational insights

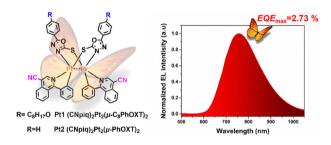
Aaron Forde,\* Amanda C. Evans, Wanyi Nie, Sergei Tretiak and Amanda J. Neukirch\*



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Achieving near-infrared electroluminescence around 780 nm based on butterfly-shaped dinuclear platinum(II) complexes

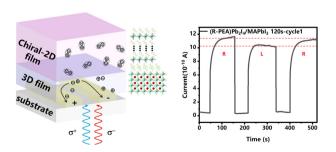
Junting Yu,\* Xiaogin Yang, Jun Chen, Denghui Liu, Ligin Cao, Hua Tan\* and Weiguo Zhu\*



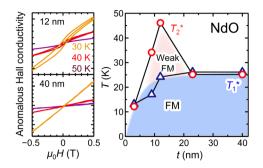
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Construction of chiral-2D/3D perovskite heterojunction films for efficient circularly polarized light detection

Liting Tao, Wei Tang, Minxing Yan, Li Ding, Jiajun Wei, Lixiang Wang, Liqi Li, Linjun Li,\* Deren Yang and Yanjun Fang\*



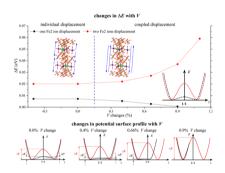
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Thickness-dependent magnetotransport properties of rocksalt NdO epitaxial thin films: observation of a ferromagnetic phase far above the Curie temperature

Daichi Saito, Daichi Oka, Kenichi Kaminaga, Miho Kitamura, Daisuke Shiga, Hiroshi Kumigashira and Tomoteru Fukumura\*

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## Temperature induced structural and polarization features in BaFe<sub>12</sub>O<sub>19</sub>

Dmitry B. Migas, Vitaliy A. Turchenko, A. V. Rutkauskas, Sergey V. Trukhanov, Tatiana I. Zubar, Daria I. Tishkevich, Alex V. Trukhanov\* and Natalia V. Skorodumova