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Journal of Materials Chemistry C

Materials for optical, magnetic and electronic devices

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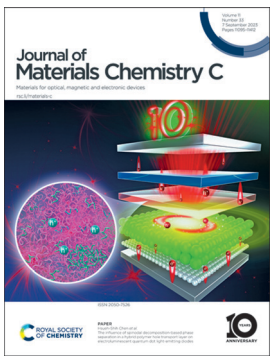

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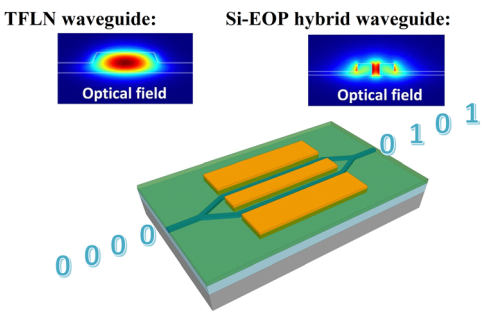
Perspectives of thin-film lithium niobate and electro-optic polymers for high-performance electro-optic modulation

Mengke Wang, Yixin Chen, Shengpeng Zhang, Lianghai Dong, Hao Yao, Huajun Xu,* Kaixin Chen* and Jieyun Wu*



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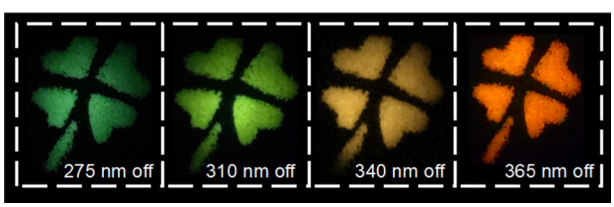
Single-component compounds with wide-range color-tunable ultralong organic phosphorescence

Weitao Sun, Xianyin Dai, Haiyan Ge, Xianfeng Meng, Guiyun Duan* and Yanqing Ge*



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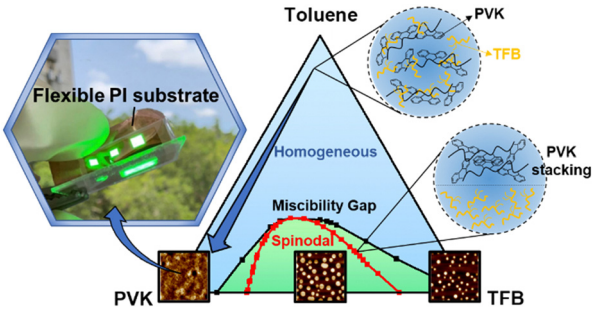
The influence of spinodal decomposition-based phase separation in a hybrid polymer hole transport layer on electroluminescent quantum dot light-emitting diodes

Minh-Son Hoang, Jie-Syuan Lu, Her-Yih Shieh and Hsueh-Shih Chen*



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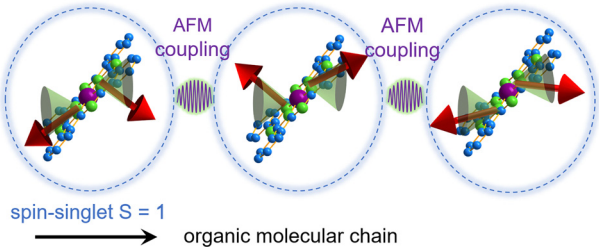
Antiferromagnetic spin-1 large-*D* phase in organic spin-chain crystals

Zhihao Li, Yihao Wang, Yuyan Han, Meng Song, Jiangpeng Song, Junbo Li, Yongliang Qin, Langsheng Ling, Wei Tong, Yuxian Guo, Zan Du, Lei Zhang, Wenhua Zhang,* Yimin Xiong* and Liang Cao*



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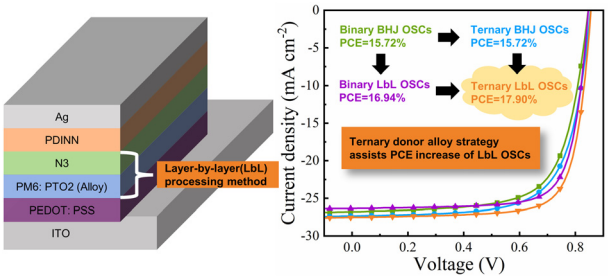
Layer-by-layer processing enabled alloy-like ternary organic solar cells to achieve 17.9% efficiency

Jingwen Du, Ruobi Zhu, Luye Cao, Xinrui Li, Xiaoyang Du,* Hui Lin, Caijun Zheng and Silu Tao*



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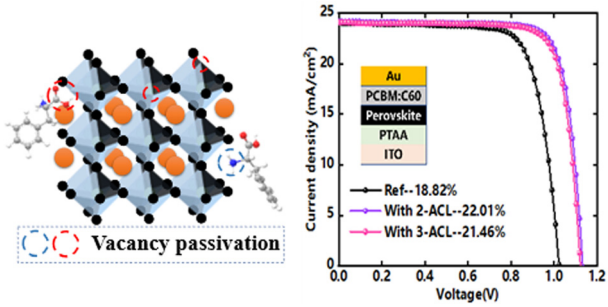
Boosting the performance of MA-free inverted perovskite solar cells *via* multifunctional amino acid additives

Chenhui Zhang, Chunjun Liang,* Hongkang Gong, Jing Wang, Qi Song, Chao Ji, Fulin Sun, Ting Zhu, Xinghai Huang, Yuzhu Guo, Dan Li,* Fangtian You and Zhiqun He*



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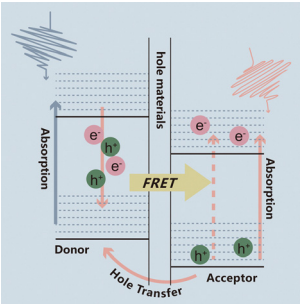

Probing fluorescence resonance energy transfer and hole transfer in organic solar cells using a tandem structure

Zhenmin Zhao, Shenglong Chu, Jie Lv, Qianqian Chen, Zhengguo Xiao, Shirong Lu and Zhipeng Kan*

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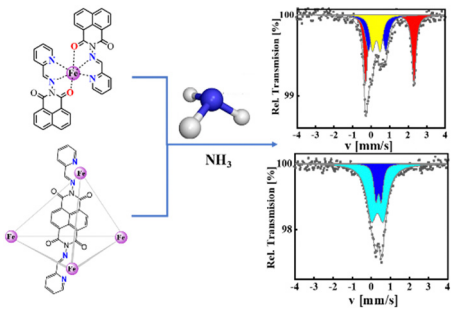

From a mononuclear $Fe^{II}L_2$ complex to a spin crossover $Fe^{II}{}_4L_6$ cage by symmetric ligand architecture modification: insights into the ammonia gas sensing mechanism

Weiyang Li, Aurelian Rotaru, Mariusz Wolff, Serhiy Demeshko, Franc Meyer and Yann Garcia*

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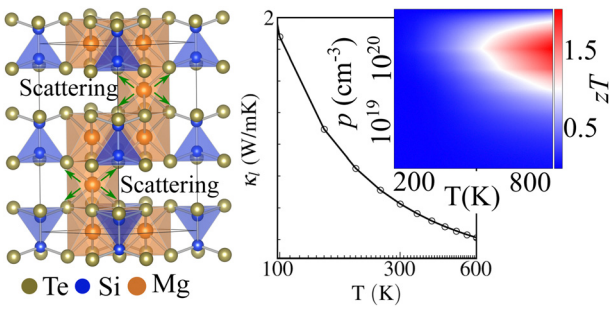

High thermoelectric figure of merit in p-type $Mg_3Si_2Te_6$: role of multi-valley bands and high anharmonicity

Tribhuwan Pandey,* François M. Peeters and Milorad V. Milošević

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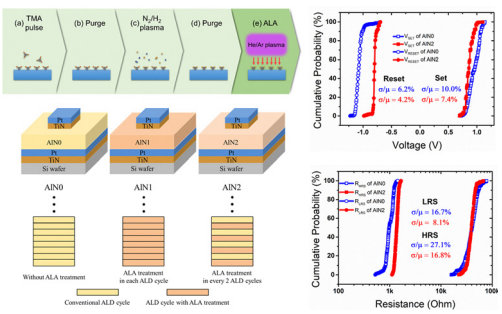

Atomic layer engineering on resistive switching in sub-4 nm AlN resistive random access memory devices

Chen-Hsiang Ling, Chi-Lin Mo, Chun-Ho Chuang, Jing-Jong Shyue and Miin-Jang Chen*

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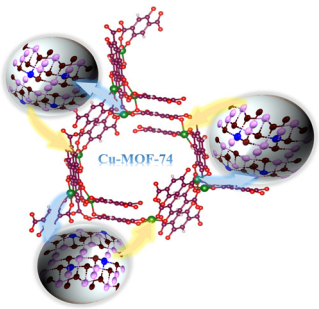
Magnetic and optoelectronic modulation of Cu-MOF-74 films by quantum dots

Zhimin Mao, Su-Yun Zhang, Duo Zhao, Xiaoliang Weng, Chenxu Kang, Hui Fang* and Yu-Jia Zeng*



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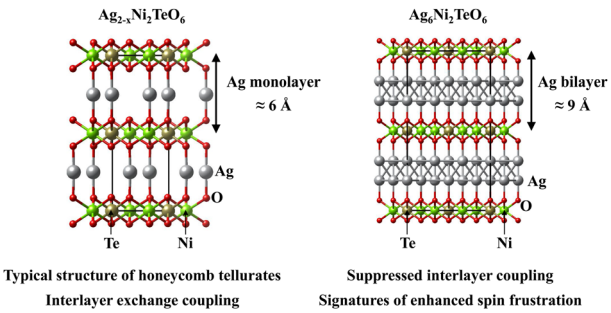
Antiferromagnetic ordering and signatures of enhanced spin-frustration in honeycomb-layered tellurates with Ag bilayers

Sachio Komori,* Kohei Tada,* Noboru Taguchi, Tomoyasu Taniyama and Titus Masese*



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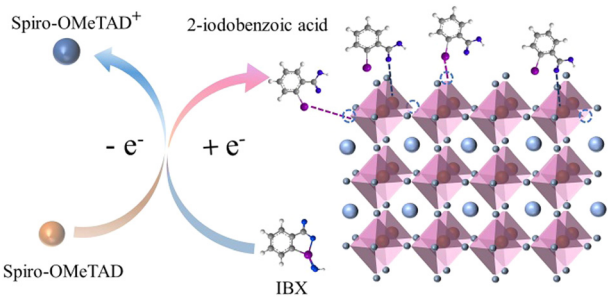
Introducing an alternative oxidant for Spiro-OMeTAD with the reduction product to passivate perovskite defects

Xing Gao, Fei Wu,* Ye Zeng, Kaixing Chen, Xiaorui Liu* and Linna Zhu*



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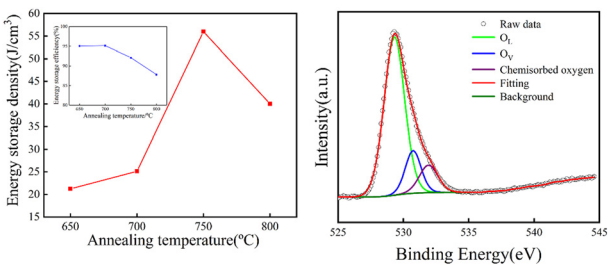
Effect of annealing temperature on energy storage performance of $Ba(Zr_{0.35}Ti_{0.65})O_3$ thin films under pure oxygen

Yanji Sun, Zheng Sun,* Xiang Li, Xipeng Yue, Yemei Han, Yangyang Xie, Kai Hu, Fang Wang and Kailiang Zhang



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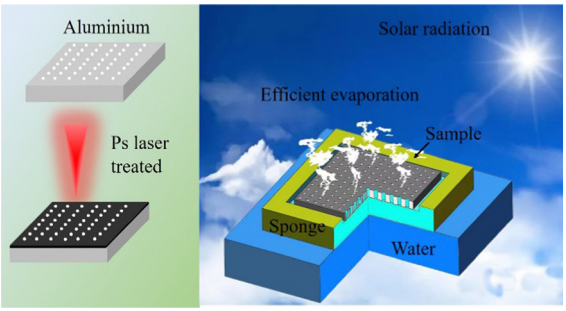

A salt pollution self-cleaning Al based solar desalination evaporator fabricated using a picosecond laser

Weizhen Li, Dongkai Chu,* Qingwei Wang, Kai Yin,* Honghao Zhang, Shuoshuo Qu and Peng Yao*

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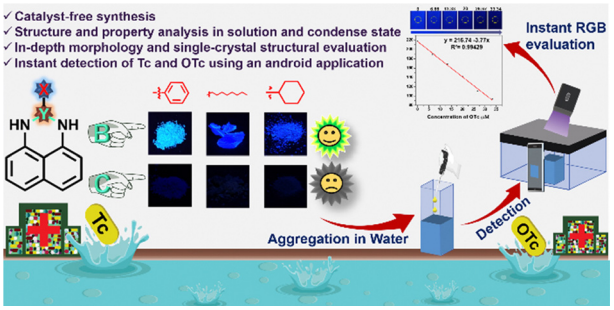

Deciphering the proficiency of aliphatic/aromatic functionality on a heteroatom embedded planar polycyclic core: towards advanced onsite detection of tetracycline and oxytetracycline

Retwik Parui, Nehal Zehra and Parameswar Krishnan Iyer*

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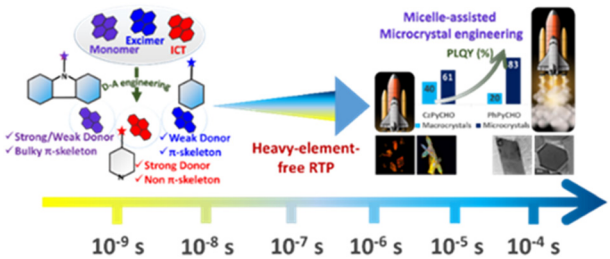

Heavy-element-free triplet accessibility in pyrene-core compounds at room temperature by microcrystal engineering

Pradip Pattanayak, Arnab Nandi, Sourav Kanti Seth and Pradipta Purkayastha*

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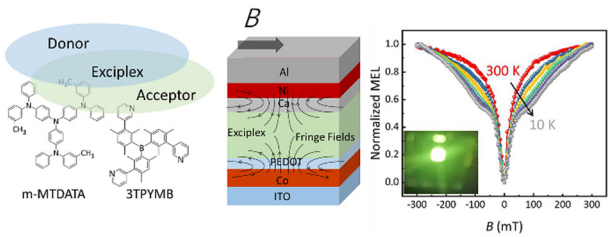

Manipulation of magneto-electroluminescence from exciplex-based spintronic organic light-emitting diodes

Chenghao Liu, Zhen Chen, Huitian Du, Yuan Yu, Junfeng Ren, Jihui Fan, Shenghao Han* and Zhiyong Pang*

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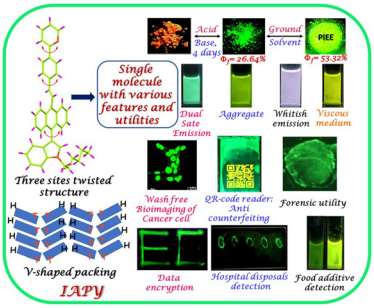
Asymmetrical organic D–π–A conjugate with 'V'-shaped crystal packing: quest to transcend the limits of photophysical properties and applications

Shouvik Bhuin, Purbali Chakraborty, Pandiyan Sivasakthi, Pralok K. Samanta, Perumal Yogeeswari and Manab Chakravarty*



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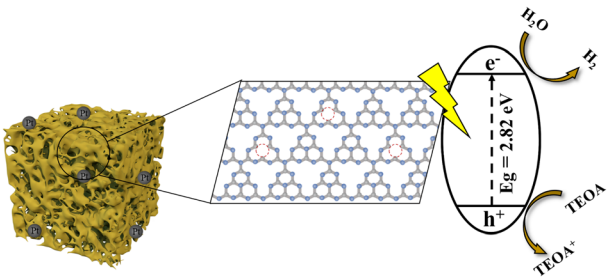
Nitrogen defects and porous self-supporting structure carbon nitride for visible light hydrogen evolution

Jun Han, Fangzhou Wu, Zhongwei wang, Xiyu Chen, De Hu, Feng Yu, Yan Gao,* Bin Dai* and Wei Wang*



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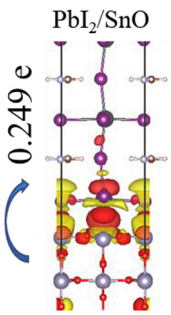
Insights into the electron transport performance of the $FAPbI_3/SnO_2$ interface

Xiangxiang Feng, Biao Liu,* Mengqiu Cai and Junliang Yang



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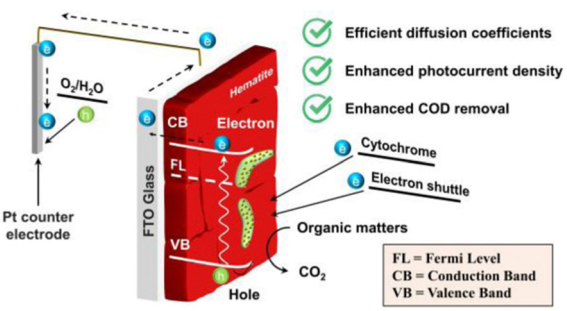
Photoenhanced interfacial electron transfer of a dual functional hematite biophotoelectrode

Chun Hong Mak, Yong Peng, Man Hin Chong, Li Yu, Minshu Du, Li Ji, Xingli Zou, Guizheng Zou, Hsin-Hui Shen,* Shella Permatasari Santoso,* Wenxin Niu, Fang-Fang Li and Hsien-Yi Hsu*



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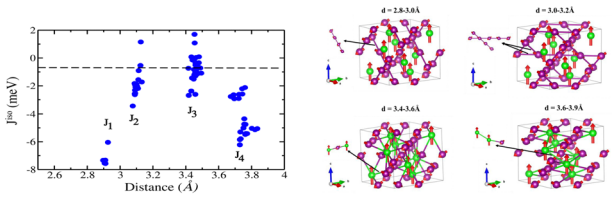

Switching of dominant magnetic exchange interactions between tetrahedral–octahedral and octahedral–octahedral sites in $(Mn_{1-x}Cr_x)_3O_4$ spinels

G. D. Dwivedi, Tsung-Wen Yen, S. M. Kumawat, C. W. Wang, D. Chandrasekhar Kakarla, A. Tiwari, H. D. Yang, S. M. Huang, C. M. Chung, S. J. Sun and H. Chou*

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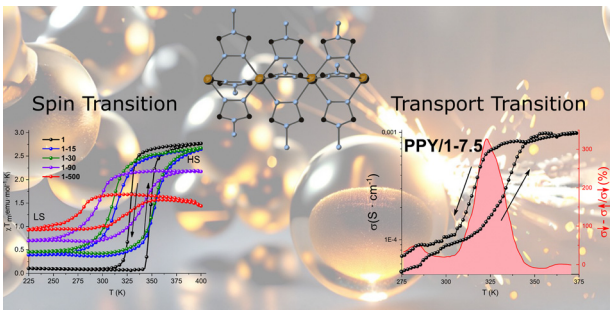

Magnetic and electrical bistability in hybrid composites of conducting organic polymers with $[Fe(NH_2\text{-trz})_3]_n[SO_4]_n$

David Nieto-Castro,* Anna Weronika Graf, Francesc Gispert-Guirado and José Ramón Galán-Mascarós*

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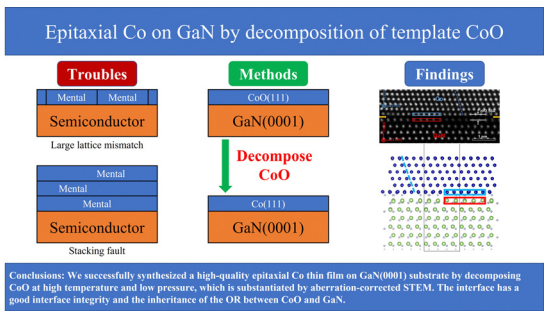
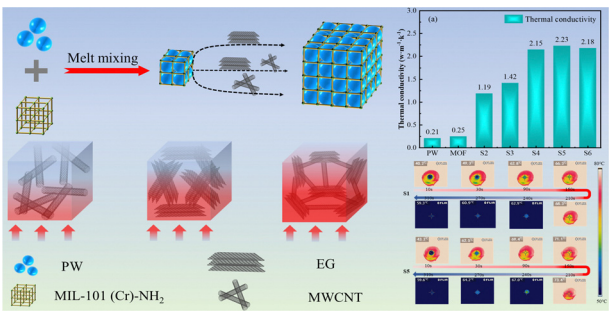


Epitaxial Co on GaN by decomposition of template CoO

Nianqi Qiu, Wandong Xing,* Rong Yu and Fanyan Meng*

11341



Multifunctional MIL-101(Cr)-NH_2/expanded graphite/multi-walled carbon nanotube/paraffin wax composite phase change materials with excellent thermal conductivity and highly efficient thermal management for electronic devices

Ruiqiang He, Min Fang,* Jianduo Zhou, Hua Fei and Kai Yang

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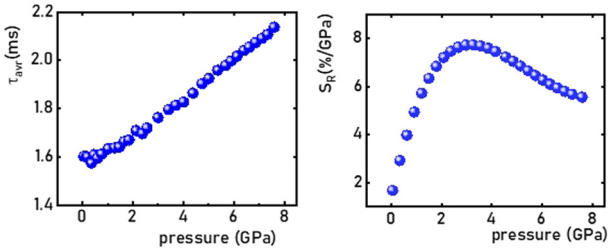
11353

Temperature invariant lifetime based luminescent manometer on Mn^{4+} ions

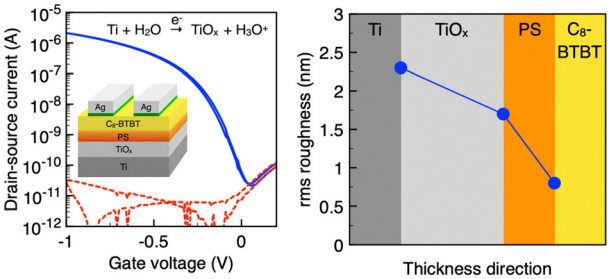
M. Pieprz, M. Runowski, P. Woźny, J. Xue and L. Marciniak*



11361

High-performance ultra-low-voltage organic field-effect transistors based on anodized TiO_x dielectric and solution-sheared organic single crystals

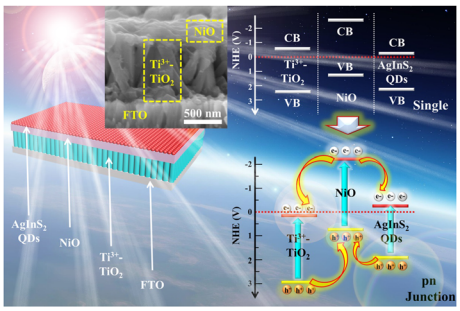
Bowen Geng, Feng Zhang, Xiaohai Ding, Lei Liu, Yan Chen, Shuming Duan,* Xiaochen Ren* and Wenping Hu*



11369

The transparent photovoltaic NiO/TiO_2 orderly nanoarray pn junction *via* synergism of $AgInS_2$ quantum dots and Ti^{3+} self-doping

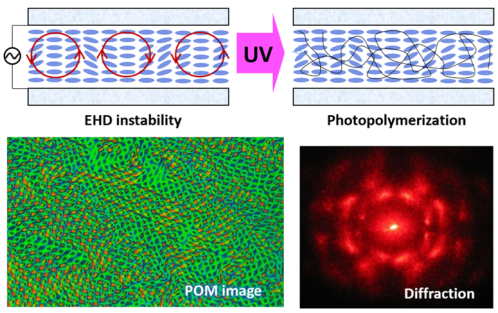
Lei Lu, Lixin Que, Yunlong Xu, Jun Cao, Jingjing Wang, Yingying Zheng, Lei Shi, Wenwu Zhong,* Chaorong Li* and Jiaqi Pan*



11379

Photo- and electro-controllable 2D diffraction gratings prepared using electrohydrodynamic instability in a nematic polymerizable mixture

Alexey Bobrovsky,* Valery Shibaev, Boris Ostrovskii, Martin Cigl, Věra Hamplová and Alexej Bubnov



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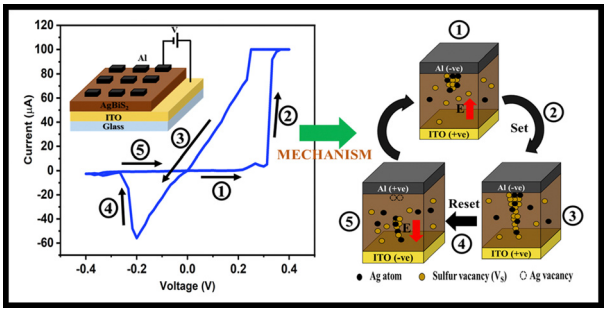
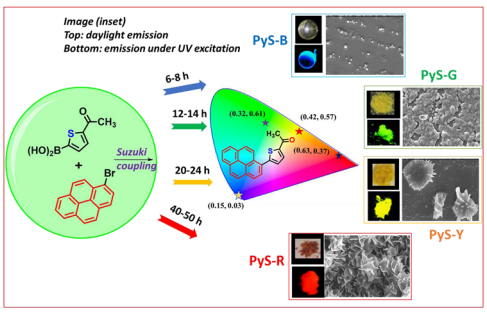
11392



$AgBiS_2$ quantum dot based multilevel resistive switching for low power electronics

Harshit Sharma, Nitish Saini, Ajeet Kumar* and Ritu Srivastava*

11399



Tunable emission in the visible range from a single organic fluorophore through time-controlled morphological evolution

Ram Prasad Bhatta, Vishal Kachwal, Clàudia Climent, Mayank Joshi, Pere Alemany, A. Roy Choudhury and Inamur Rahaman Laskar*

CORRECTION

11409

Correction: Gd–Er interaction promotes $NaGdF_4$:Yb, Er as a new candidate for high-power density applications

Daniel Avram,* Andrei A. Patrascu, Marian Cosmin Istrate and Carmen Tiseanu*

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