

Journal of Materials Chemistry C

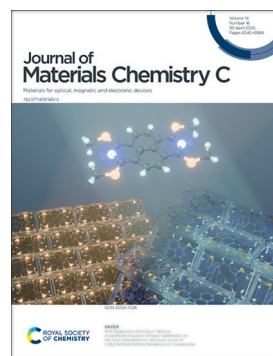
Materials for optical, magnetic and electronic devices

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ISSN 2050-7526 CODEN JMCCCX 14(16) 6545-6984 (2026)



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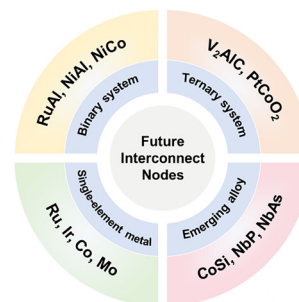
See Kirill Bulgarevich and Kazuo Takimiya, pp. 6621-6629. Image reproduced by permission of Kazuo Takimiya from *J. Mater. Chem. C*, 2026, 14, 6621.

REVIEWS

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Recent progress in alternative metals for advanced interconnects

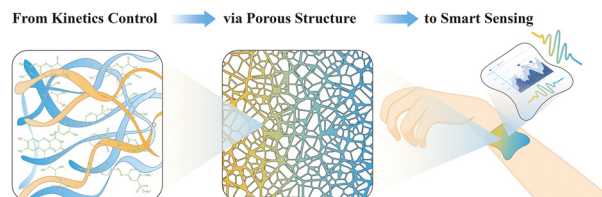
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Soft matter-enabled electrochemiluminescence: from interfacial kinetics to scenario-driven applications

Junfei Xing, Ze Hu, Ziyang Liu, Yingjie Wu and Quan Li*



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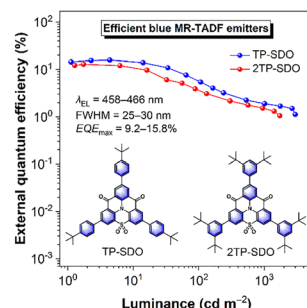
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Sulfonyl-locking and steric hindrance engineering achieve efficient blue multi-resonance TADF emitters

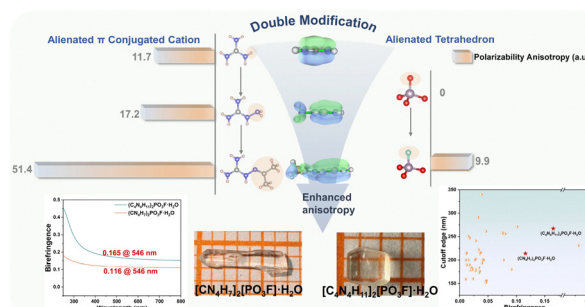
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Huan Zhou, Meng Cheng, Yuqi Qin, Congwei Xie, Junjie Li, Xueling Hou* and Zhihua Yang*

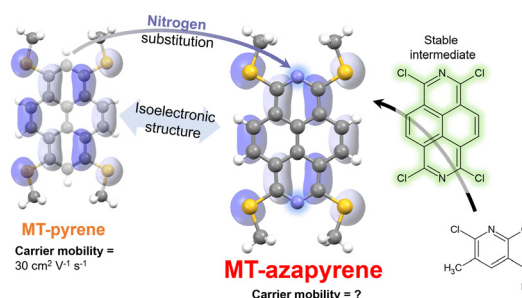


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A significant impact of nitrogen substitution on the solid-state electronic structure: a case of 1,3,6,8-tetrakis(methylchalcogeno)-2,7-diazapyrene

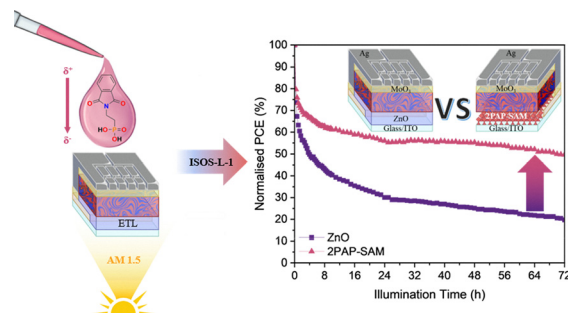
Kirill Bulgarevich* and Kazuo Takimiya*



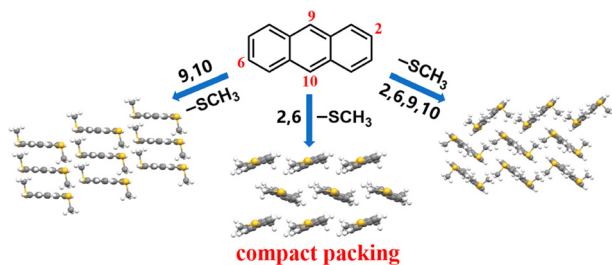
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ZnO-free organic solar cells with a self-assembled monolayer as an ETL for improved stability

Chélia Zalani, Gilles H. Roche, Olivier J. Dautel, Martial Leyney, Jean-Sébastien Filhol, Roland Lefèvre, Christine Labrugère-Sarroste, Gilles Pécastaings, Guillaume Wantz and Sylvain Chambon*



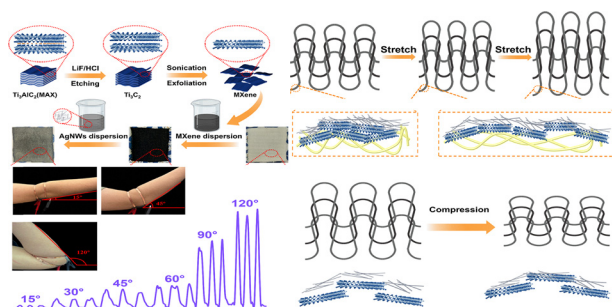
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Substitution-position-dependent optoelectronic properties of methylthiolated anthracenes

Zhihao Meng, Ying Zhang, Xiaohui Jia* and Yonggang Zhen*

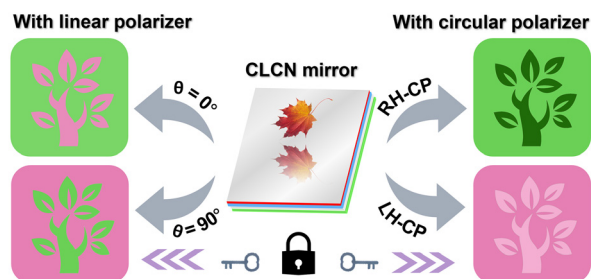
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A bidirectional knitted strain sensor via AgNWs/MXene hybridization for broad-range multi-stage sensing

Xinpeng Wang, Jiajun Huang, Qi Yu, Bowen Li, Zhijie Ye, Shihao Yang, Yue-Hui Wang* and Jing-Ze Li*

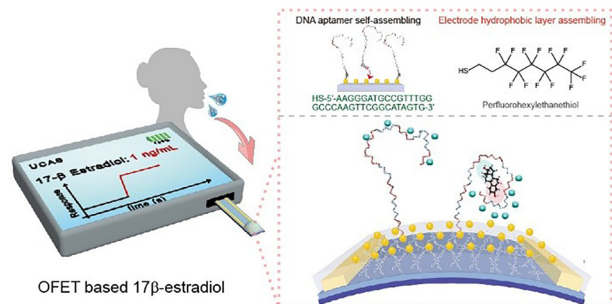
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Encrypted mirror prepared based on the linearization of circularly polarized light

Rui Li, Jianyang Yan, Wei Liu,* Yi Li and Yonggang Yang*

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A portable salivary 17β-estradiol sensor with a label-free organic field-effect transistor

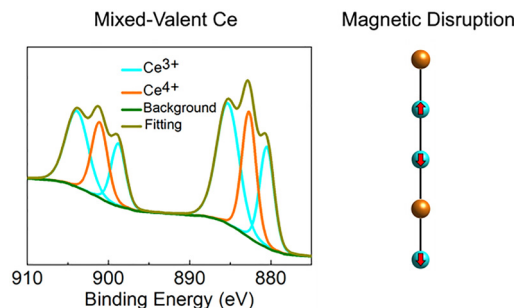
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Mixed-valent Ce disrupts magnetic ordering in CeFe_2Ga_8

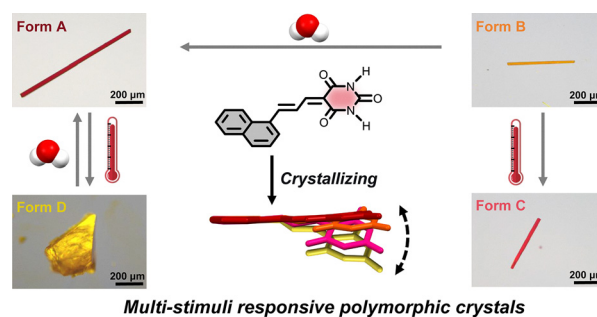
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Polymorph-triggered multiple responses in dynamic molecular crystals of barbituric acid derivatives

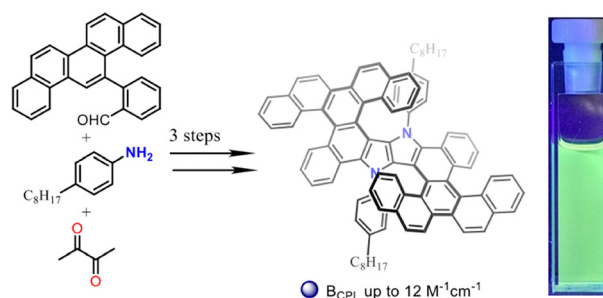
Ya-Bing Sun, Jiang-Tao Liu, Hui-Yao Lin,*
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Synthesis and chiral optical activity of a quadruple heterohelicene based on 1,4-dihydropyrrolo[3,2-*b*]-pyrrole–picene hybrid

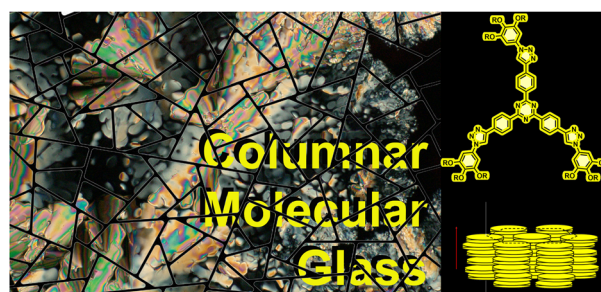
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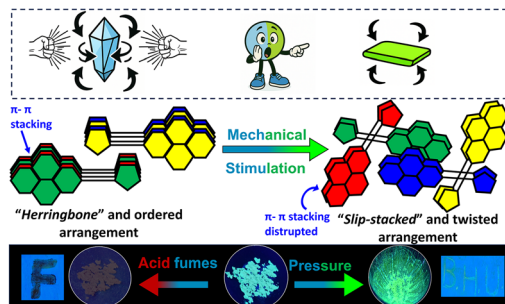
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A columnar molecular glass at high temperature

Fabrcia Nunes da Silva, Arthur Felipe Zito Santos,
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Andrew P. Monkman, Giliandro Farias,
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Harald Bock and André Alexandre Vieira*



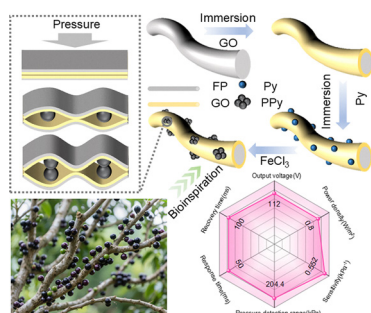
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Unravelling the role of various interactions in mechanochromism-induced polymorphism: a sensor kit for acidic fume detection and double encryption–decryption technologies

Pranjalee Yadav, Aayooash Singh, Amit Kumar Singh and Vinod P. Singh*

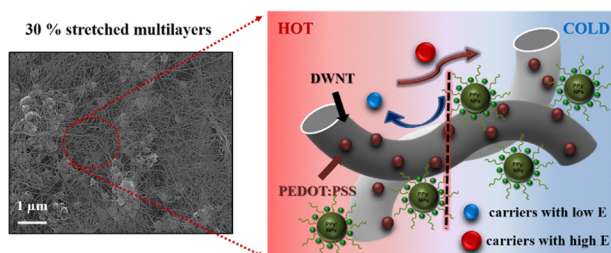
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Hierarchical micro-engineering of paper for high-performance pressure sensing and triboelectric nanogeneration

Xin Jing,* Shitao Li, Jian Zou, Yeqing Xu, Peiyong Feng, Yuejun Liu and Hao-Yang Mi*

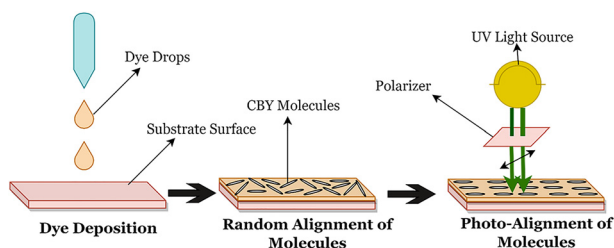
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High-performance stretchable thermoelectric multilayers enabled by a synergistic elastomer-conjugated network

Suk Hoon Lim, Mario Culebras, Yong Tae Park,* Jung Sang Cho* and Chungyeon Cho*

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Photoaligned nematic liquid crystals doped with palladium-immobilised carbon nanospheres for advanced low-voltage display and energy storage devices

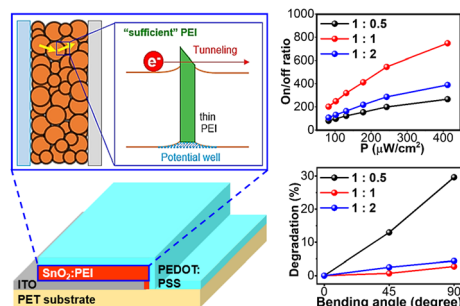
Garima Shukla, Ayushi Rastogi, Supriya S, Gurumurthy Hegde* and Rajiv Manohar*



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Flexible, self-powered UVC photodetectors enabled by low-temperature solution-processed SnO₂:PEI nanocomposites

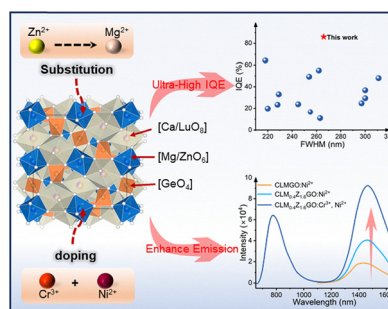
Manh Hoang Tran,* Thi My Huyen Nguyen, Qui Thanh Hoai Ta, Ngoc Hoi Nguyen, Tien-Dung Nguyen-Dinh and Dai Hai Nguyen*



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Dual-strategy optimization of Ni²⁺-activated NIR emission in CaLu₂Mg₂Ge₃O₁₂ via Zn²⁺-driven internal quantum efficiency boost and Cr³⁺-enhanced absorption

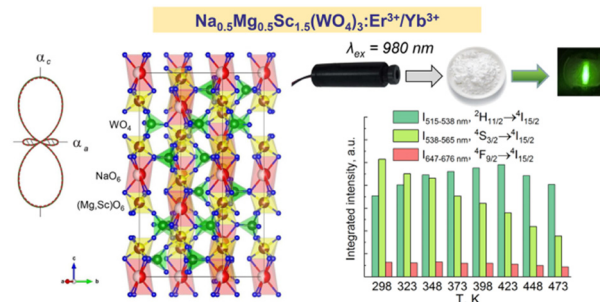
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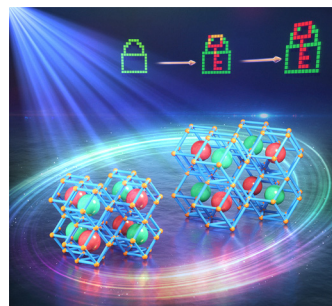
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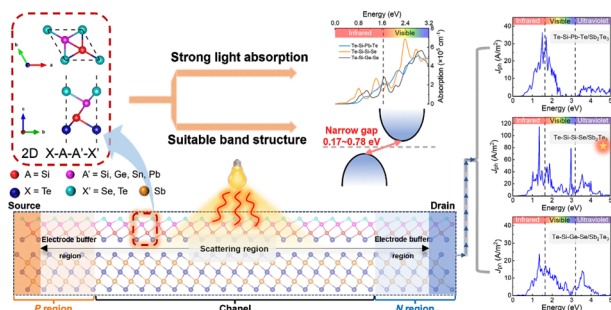
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Rapid-photo-responsive photoluminescence of spiropyran-encapsulated cage-like zeolitic imidazolate frameworks via a dynamic energy transfer process

Zheyuan Xu, He-Qi Zheng,* Shijun Wang, Chenyu Li, Guodong Qian and Yuanjing Cui*



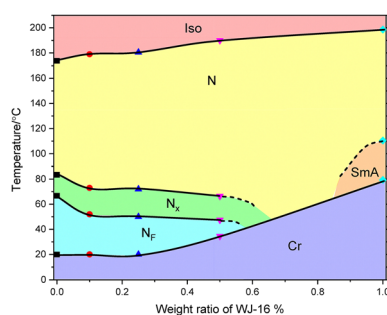
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Emerging two-dimensional group IV chalcogenides as building blocks for advanced infrared photodetectors

Hao Chen, Sijie Shen, Rui Xiong,* Huiwen Yu, Jiansen Wen, Xiaochun Huang,* Cuilian Wen, Bo Wu and Baisheng Sa*

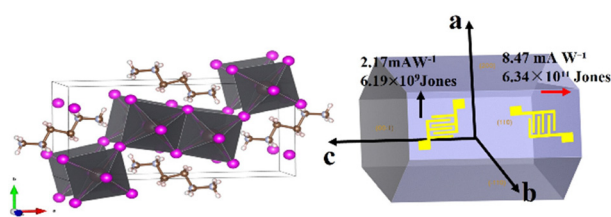
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Ferroelectric and hyper dielectric modes in ferronematic liquid crystals

Rahul Uttam, Neelam Yadav, Mudit Sahai, Alexander Belik, Wanhe Jiang, Georg H. Mehl,* Jagdish K. Vijj* and Yuri P. Panarin*

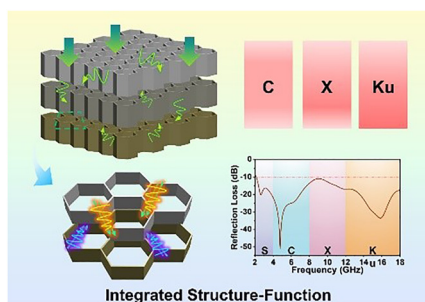
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Construction of 3D and 2D perovskites with N-methylpropane-1,3-diammonium as the organic cation and superior interlayer charge transport in the 3D perovskite single crystal photodetector

Jianhua Liao, Xiaoyan Gan,* Linfei Yang, Pengcheng Wang, Ci Liu, Fuwei Zhuge, Liling Guo and Hanxing Liu

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Design and fabrication of a strong absorption gradient multilayer honeycomb with wideband absorption

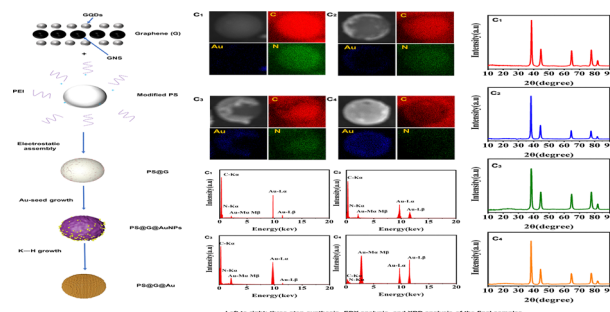
Haoyu Zhao, Guiyong Chen, Yusong Ma, Rongting Guan, Yige Han, Weiwei Xu, Yuhang Liu and Feng Chen*



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Gold-coated graphene-embedded micron-sized polystyrene core-shell structures with an unconventional Hall anomaly and Berry curvature

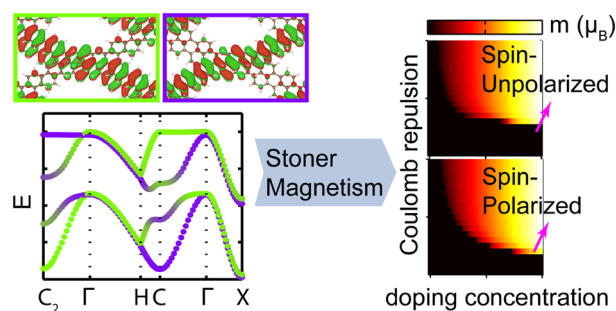
Binglang Chang, Lei Lin, Hongbo Chengzhu and Lin Yi*



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Orbital model unravelling slipped-stacking induced quantum interference in tetrahedral 2D conjugated polymers

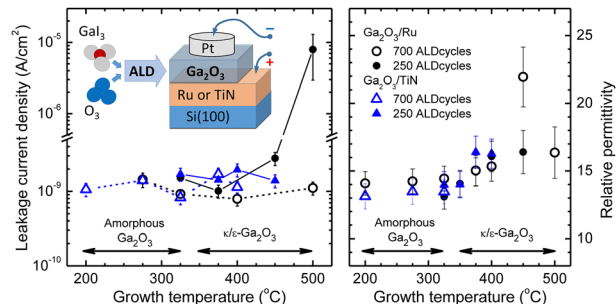
Yang Li, Zhenling Liu, Shaoqing Guan, Dan Liu, Qingbin Li, Can Gao, Yongshuai Wang, Jichen Dong,* Wenping Hu, Yunqi Liu and Huanli Dong*



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Structure and electrical properties of Ga₂O₃ thin films grown by atomic layer deposition on Ru and TiN electrodes

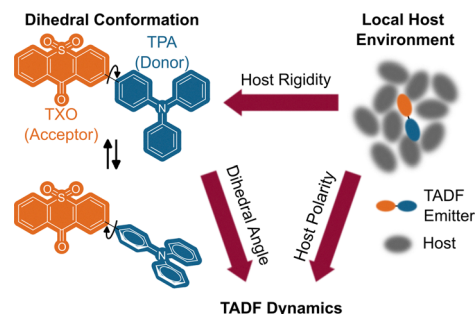
Lauri Aarik,* Aivar Tarre, Hugo Mändar, Joonas Merisalu, Jun Lu, Lars Hultman and Jaan Aarik



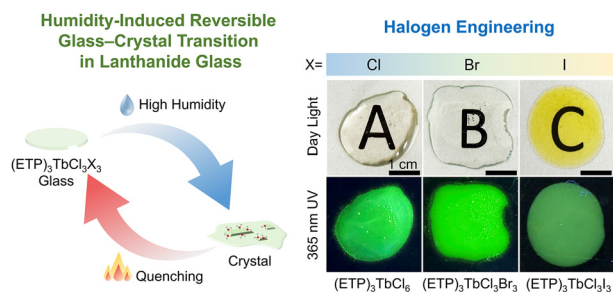
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Disclosing the impact of local host effects on TADF dynamics

Björn Ewald,* Theodor Kaiser, Thomas Fleischmann and Jens Pflaum*



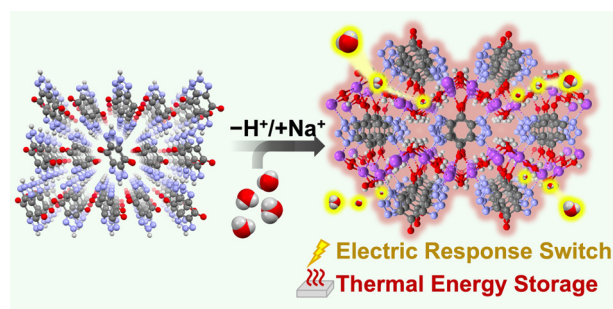
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A large area transparent Tb-based lanthanide halide glass scintillator for high-resolution X-ray imaging

Zi'an Zhou, Lichan Mai, Tiao Feng, Yini An, Lulu Li, Shuyun Zhou, Jinxiao Zheng* and Chenghua Sun*

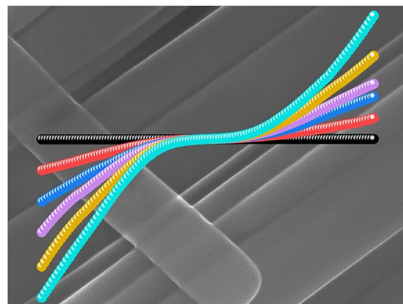
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Reversible hydration-induced ionic conductivity switching accompanied by large desorption enthalpy in sodium salts of 1,2,3-triazole-fused *p*-benzoquinone

Shiori Harada, Shun Dekura,* Genki Saito, Tetsu Sato and Tomoyuki Akutagawa*

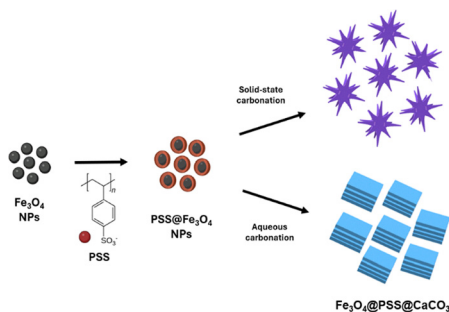
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High-performance CsPbBr₃ nanobelt photodetectors

Jing Li, Xue Jiang,* Lingfeng Qiu, Tianze Wen, Jinju Zheng, Jialong Zhao, Bingsuo Zou* and Zhentao Du*

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Dry ice carbonation approach for the synthesis of calcium carbonate-based magnetic composites

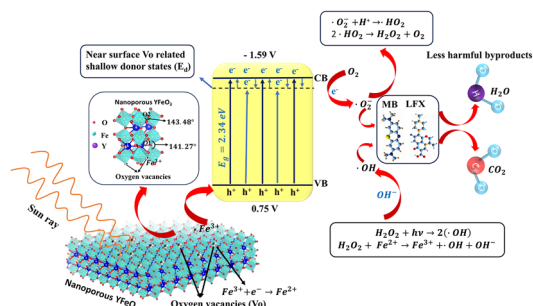
Munirah Ghariani, Caroline O'Sullivan, Aran Rafferty and Yurii K. Gun'ko*



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Oxygen-vacancy-enabled charge separation in distorted orthorhombic YFeO₃

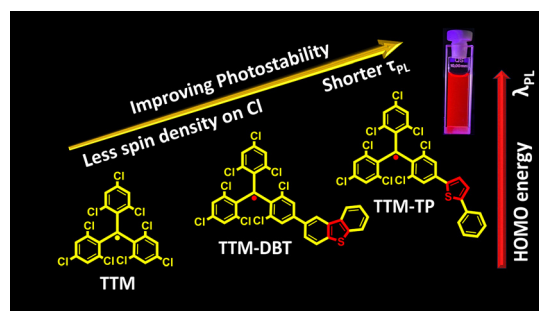
Md. Sobuj Hossain and M. A. Basith*



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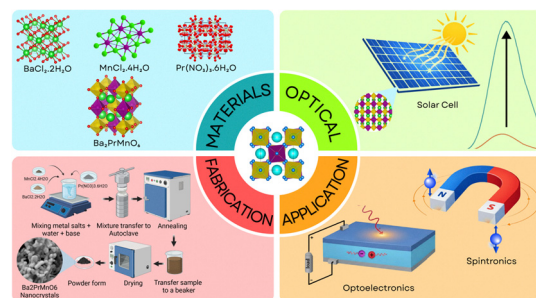
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Hydrothermal synthesis and comprehensive DFT evaluation of Ba₂PrMnO₆ double perovskite nanocrystals for next-generation spintronic and optoelectronic technologies

Rifat Sarker Apu, Samiul A. Khan, Hatem Taha, Md Serajum Manir, Hussein A. Miran, Zainab Jaf, Musa Talukder, Md Mahfuzur Rahman, Sohan Sheikh, Raihan Sarker, Rubaiyet I. Haque, Amun Amri, Nourin Arobi, Md Harunur Rashid and M. Mahbubur Rahman*



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Study of strain engineered MoS₂ and its application in lactic acid biosensors

Wenzhao Wang,* Junyan Ou, Xi Wang, Zhongyue Luo, Mingcong He, Yinshan Zhu, Da Wan,* Qiongdi Zhang and Xiangbin Zeng*

