

Journal of Materials Chemistry C

Materials for optical, magnetic and electronic devices

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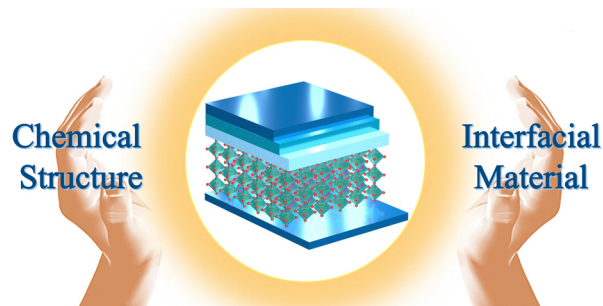
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A review on conventional perovskite solar cells with organic dopant-free hole-transport materials: roles of chemical structures and interfacial materials in efficient devices

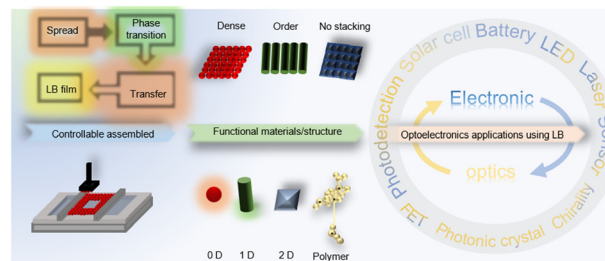
Wenhui Li, Wenning Zhao, Kairui Li and Xiuxun Han*



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Controllable-assembled functional monolayers by the Langmuir–Blodgett technique for optoelectronic applications

Heng Lin, Yueting Zheng, Chao Zhong, Lihua Lin, Kaiyu Yang, Yang Liu,* Hailong Hu and Fushan Li*



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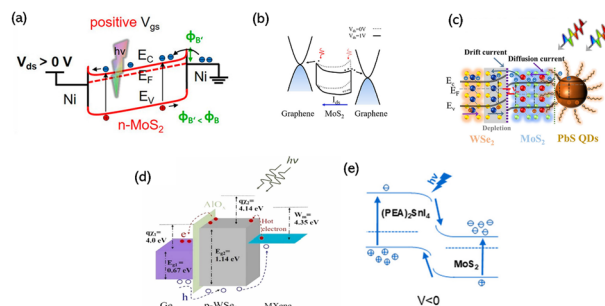


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Progress in photodetector devices utilizing transition metal dichalcogenides

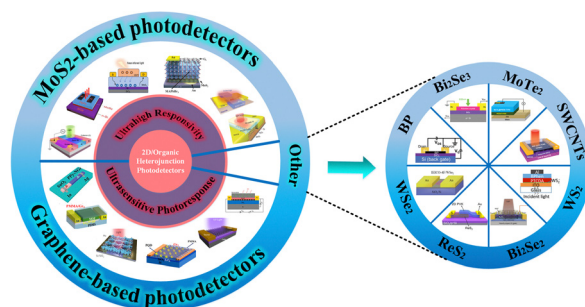
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Lei Guo, Jiayue Han and Jun Wang*

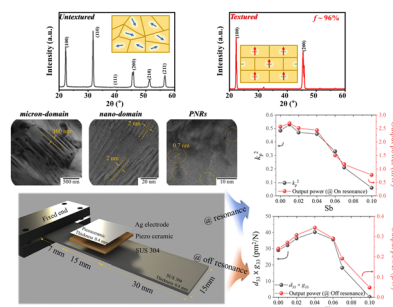


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Optimized physical properties of [001]-textured (Na, K)NbO₃-based lead-free piezoceramics for high power piezoelectric energy harvesters

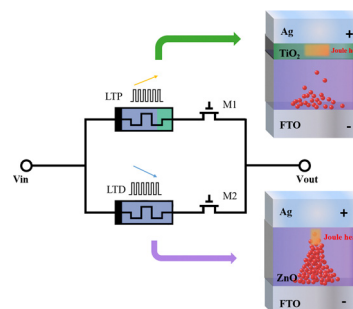
Seok-June Chae, Seung-Hyun Kim, In-Su Kim, Geun-Soo Lee, Seok-Jung Park and Sahn Nahm*



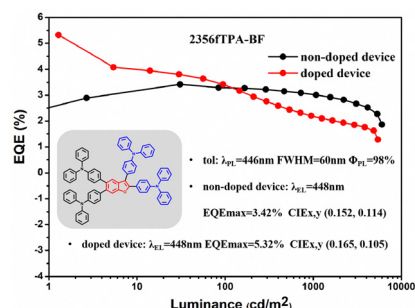
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LTP–LTD transformation of unipolar pulse voltage-driven zinc oxide memristors via TiO₂ thin layer incorporation

Yucheng Wang, Jiawei Zheng, Yueyang Shang, Dingyun Guo, Hexin Wang, Zeyang An, XiaoChuan Chen, Ruixi Huang, JunYu Jiang, Kai Sun and Shaoxi Wang*



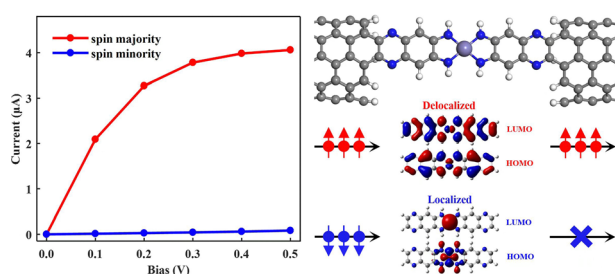
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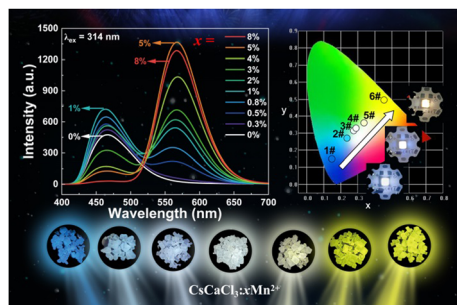
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High-performance molecular spin filters based on a square-planar four-coordinate Fe complex and covalent pyrazine anchoring groups

Yudi Wang, Haoyang Pan, Yuxuan Jiang, Jie Li, Dongying Lin, Shi Li, Yongfeng Wang, Stefano Sanvito and Shimin Hou*

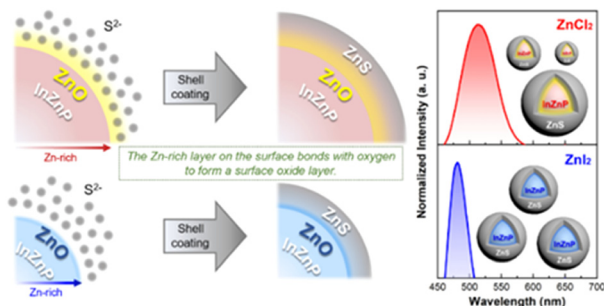
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The unique luminescent properties and enhanced thermal stability of a novel all-inorganic perovskite CsCaCl₃:Mn²⁺ for solid-state lighting applications

Zhichao Liu, Yuexiao Pan,* Xiaoxiao Fu, Yihong Ding and Liyi Li*

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Enhancing optical properties through zinc halide precursor selection: interfacial optimization of InZnP quantum dots

Chien-Chi Huang, Shu-Ru Chung* and Kuan-Wen Wang*

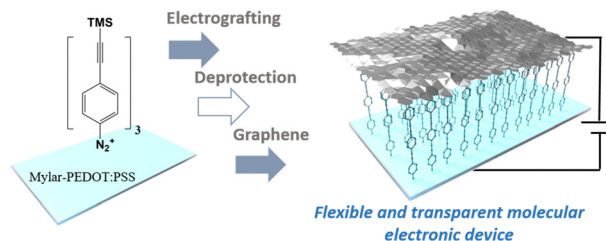


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Robust large area molecular junctions based on transparent and flexible electrodes

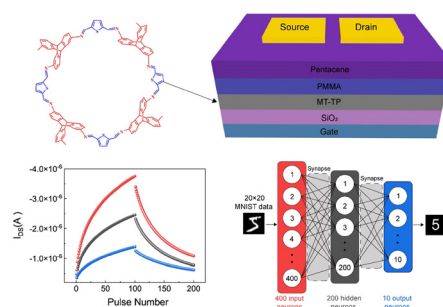
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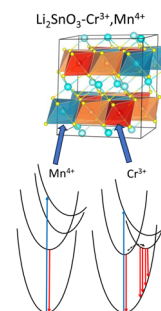
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Evaluation of $\text{Li}_2\text{SnO}_3\text{:Cr}^{3+}$, Mn^{4+} as a dual-emitter luminescence sensor for cryogenic temperatures

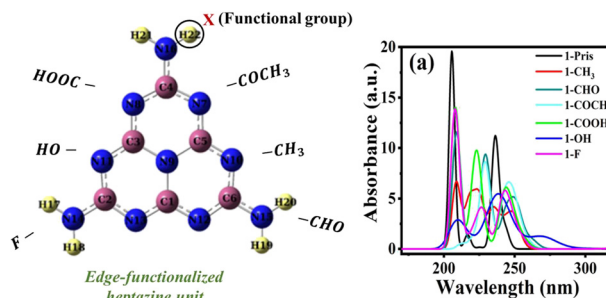
V. Mykhaylyk,* Y. Zhydashkevskyy, H. Kraus, V. Stasiv, G. Leniec, V. Hreb, L. Vasylechko, V. Sydorchuk and A. Suchocki



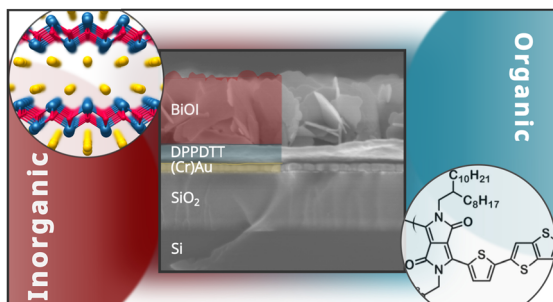
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Tuning the electronic and optical properties of hg- C_3N_4 quantum dots with edge-functionalization: a computational perspective

Khushboo Dange, Vaishali Roondhe and Alok Shukla*



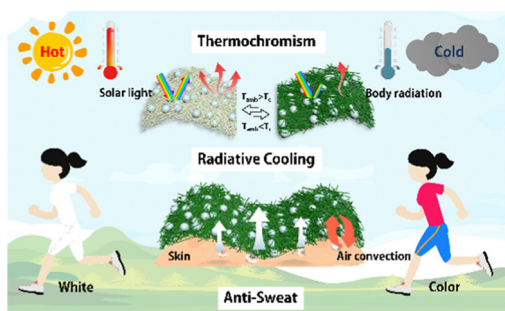
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Influence of chemical interactions on the electronic properties of BiOI/organic semiconductor heterojunctions for application in solution-processed electronics

Vaidehi Lapalikar, Preetam Dacha, Mike Hambsch, Yvonne J. Hofstetter, Yana Vaynzof, Stefan C. B. Mannsfeld* and Michael Ruck*

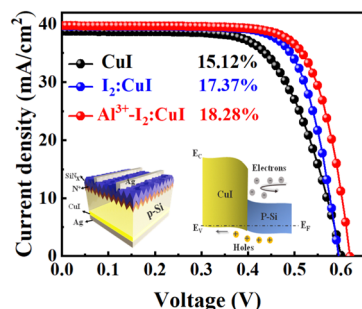
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A hierarchical metafabric with dynamically thermochromic property for subambient daytime radiative cooling

Rong Zhang, Renzhi Li, Peng Xu and Bo Xiang*

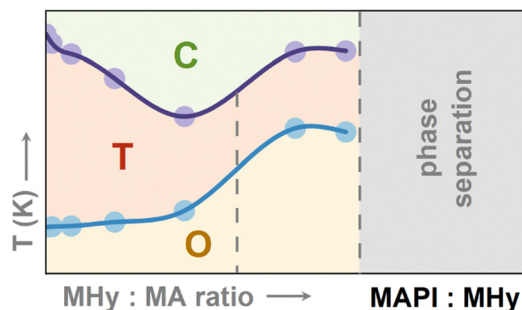
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Solution-processed copper(I) iodide *via* co-doping for enhanced hole selective contacts in p-type crystalline silicon solar cells

Wang Fu, Wuqi Liu, Yaju Wei, Dan Liu, Songyu Li, Di Zhao, Xiaoping Wu, Lingbo Xu, Ping Lin, Can Cui,* Xuegong Yu and Peng Wang*

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The lattice symmetrization worked, but with a plot twist: effects of methylhydrazinium doping of MAPbI₃ on phase transitions, cation dynamics and photoluminescence

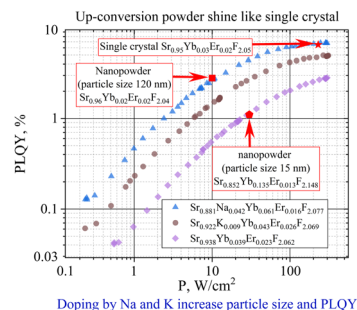
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Effect of the fluorinating agent type (NH_4F , NaF , KF) on the particle size and emission properties of $\text{SrF}_2\text{:Yb:Er}$ luminophores

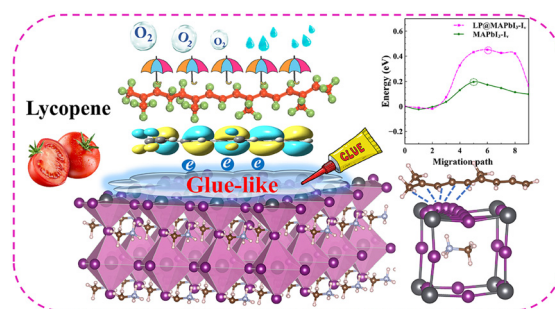
J. A. Ermakova, E. I. Madirov, P. P. Fedorov,
A. A. Alexandrov and S. V. Kuznetsov*



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Glue-like passivation by the natural alkene lycopene for efficient and stable perovskite solar cells: insights from a theoretical perspective

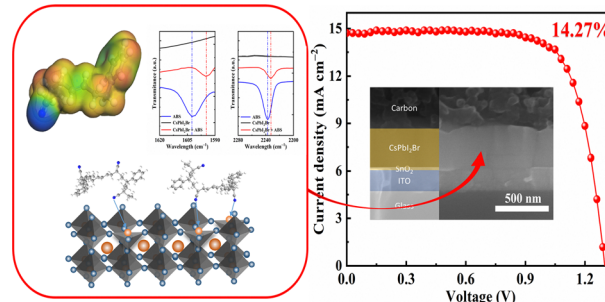
Na Chen and Quan-Song Li*



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Enhanced comprehensive performance of carbon-based hole-transport-layer-free CsPbI_2Br solar cells by a low-cost and stable long chain polymer

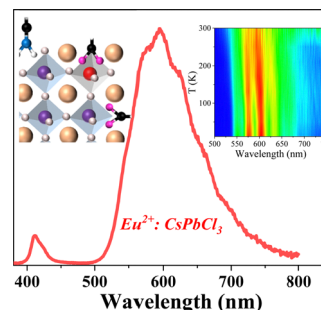
Wenxuan Li, Yali Li,* Zhe Gao, Guodong Wan,
Xiaoyang Liu, Yujun Fu, Qiming Liu, Deyan He and
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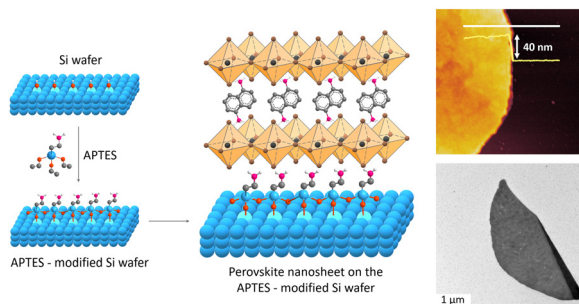
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Nanocrystals of divalent europium-doped CsPbCl_3 perovskites: a novel optoelectronic material with dual-emissions

He Yuan, Shilin Jin, Song Zheng, Rong Xie, Tao Pang,
Bin Zhuang, Feng Huang and Daqin Chen*



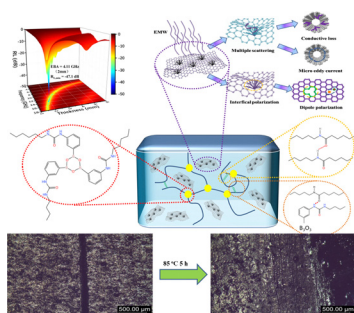
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Surface-assisted synthesis of perovskite nanosheets with bivalent aromatic cations

Andrei Mitrofanov, Khrystyna Rymsha, Dmitrii Sychev, Karina Zakirova, Petr Formanek, Darius Pohl, Eva Bittrich, Ilka M. Hermes, Quinn A. Besford* and Brigitte Voit*

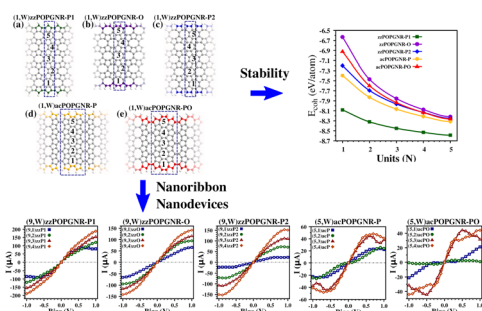
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Ultra-strength polyurethane/MOF-derived composites with self-healing and recycling capabilities and highly efficient microwave absorption properties

Wenhong Zhang, Kun Li, Liuwenlin Han, Tianyu Wu, Junying Zhang* and Jue Cheng*

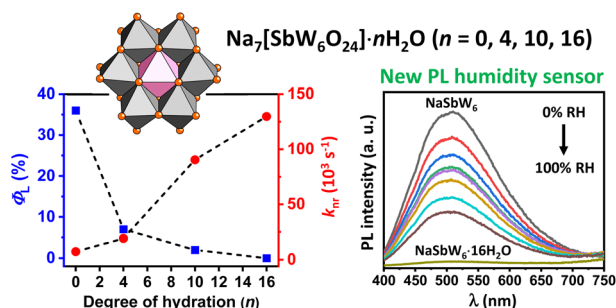
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Theoretical investigation of width effects in the electronic and transport properties of carbon nanoribbons with 5-8-5 carbon rings: a first-principles study

Elder Augusto Viana Mota,* Carlos Alberto Brito da Silva Jr and Jordan Del Nero

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$\text{Na}_7[\text{SbW}_6\text{O}_{24}]$: a new type of turn-off luminescence humidity sensor based on a lanthanide-free polyoxometalate

Aurély Bagghi, Philippe Deniard, Yohann Cartigny* and Rémi Dessapt*

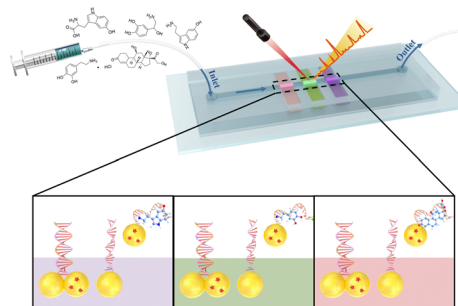


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An ultrasensitive SERS sensing chip for the serum screening of psychiatric disorders

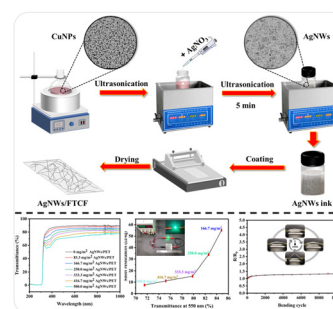
Ziteng Zhang, Qianqian Dong, Mulong Xu, Kuo Yang* and Zhuyuan Wang*



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Fast synthesis of silver nanowires at room temperature via ultrasonication-mediated galvanic replacement for flexible transparent electrodes

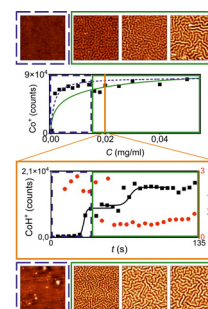
Qiusui Chen, Yuehua Ding, Meiling Xu, Ziyi Liu, Zhenpeng Liu, Qiang Liu, Yanmin Qin, Xing Wang, Zheng Fang* and Haifeng Bao*



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Means of control over poly(4-vinylpyridine)-CoBr₂ complex functional thin film formation in static and dynamic conditions

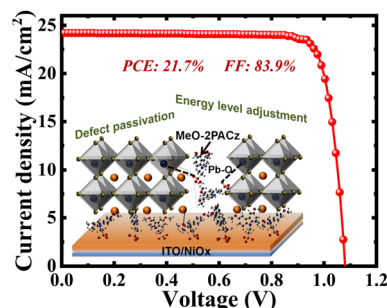
J. Chudzik, P. Dąbczyński, J. Rysz, S. Tymetska and A. M. Majcher-Fitas*

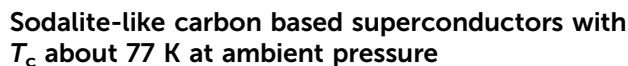


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Efficient inverted perovskite solar cells with a low-temperature processed NiO_x/SAM hole transport layer

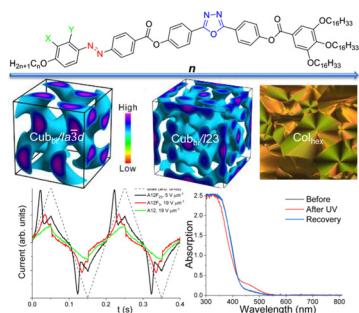
Yi Guo, Like Huang,* Chaofeng Wang, Jiajia Huang, Shuang Liu, Xiaohui Liu, Jing Zhang, Ziyang Hu and Yuejin Zhu*





Siyu Jin, Xiaoyu Kuang, Xilong Dou, Andreas Hermann*
and Cheng Lu*

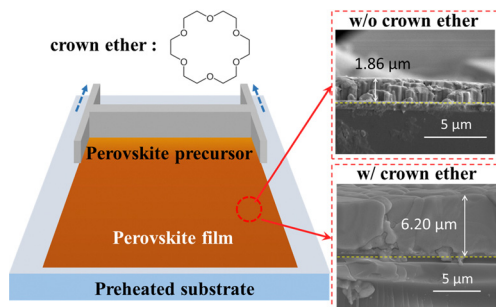
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Electric field- and light-responsive oxadiazole bent-core polycatenar liquid crystals

Mohamed Alaasar,* Ahmed F. Darweesh, Yu Cao,
Konstantin Iakoubovskii* and Masafumi Yoshio

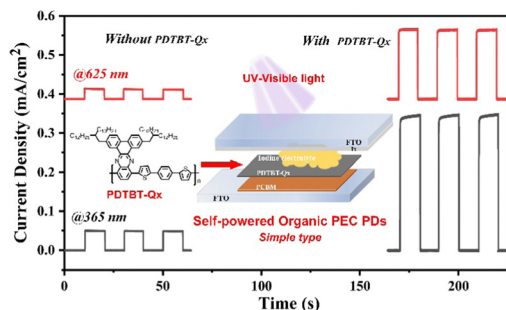
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Fast fabrication of μm -thick perovskite films by using a one-step doctor-blade coating method for direct X-ray detectors

Kuo-Wei Huang, Ming-Hsien Li, Yen-Ting Chen,
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Efficient organic self-powered photoelectrochemical photodetectors based on conjugated polymers/fullerene heterojunctions

Peng Han, Zhi Zheng, Yi Lu, Caili Lang, Shiyong Gao,*
Fengyun Guo, Jinzhong Wang and Yong Zhang*