

Journal of Materials Chemistry C

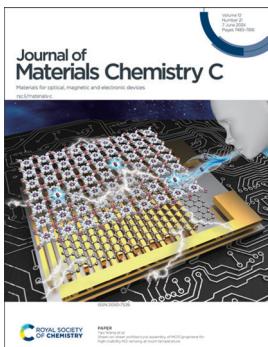
Materials for optical, magnetic and electronic devices

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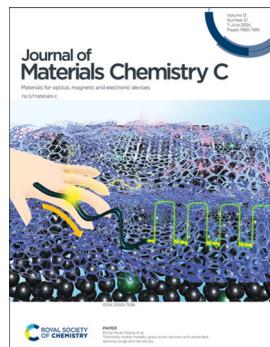
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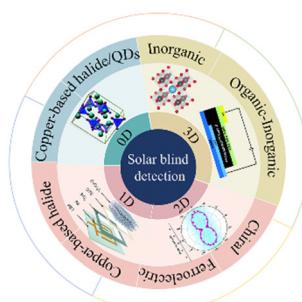
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REVIEW

7497

Recent progress on solar blind deep ultraviolet photodetectors based on metal halide perovskites

Wanfang Yang, Yutian Lei and Zhiwen Jin*

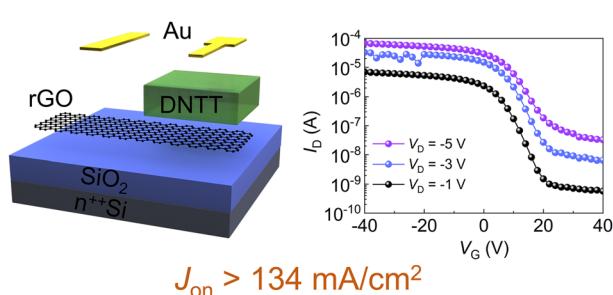


COMMUNICATION

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A design strategy for high-performance vertical organic field-effect transistors based on reduced graphene oxide electrodes

Kun Qiao,* Tingfeng Dai and Tao Zou



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Fundamental questions
Elemental answers



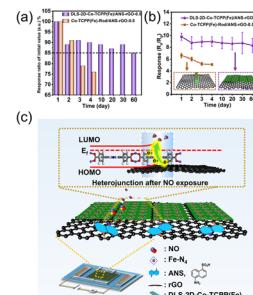
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Sheet-on-sheet architectural assembly of MOF/graphene for high-stability NO sensing at room temperature

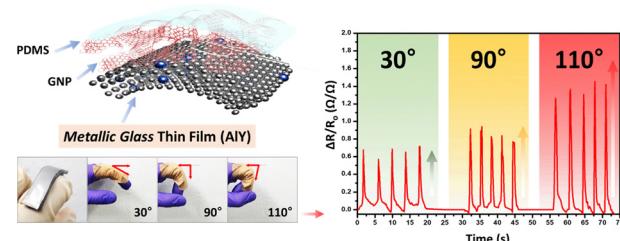
Yanwei Chang, Jingxing Zhang, Ruofei Lu, Weiran Li, Yuchen Feng, Yixun Gao, Haihong Yang, Fengnan Wang, Hao Li, Yi-Kuen Lee, Patrick J. French, Ahmad M. Umar Siddiqui, Yao Wang* and Guofu Zhou



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Thermally stable metallic glass strain sensors with extended sensing range and sensitivity

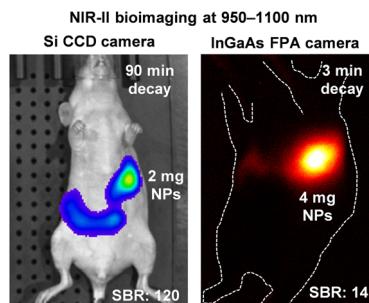
Jae Sang Cho, Woongsik Jang, Keum Hwan Park and Dong Hwan Wang*



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Deep-tissue NIR-II bioimaging performance of Si-based and InGaAs-based imaging devices using short-wave infrared persistent luminescence

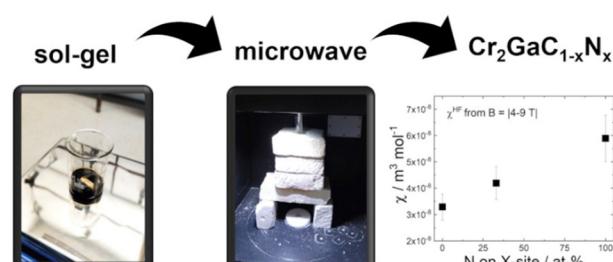
Yafei Chen,* Simona Spinelli and Zhengwei Pan*



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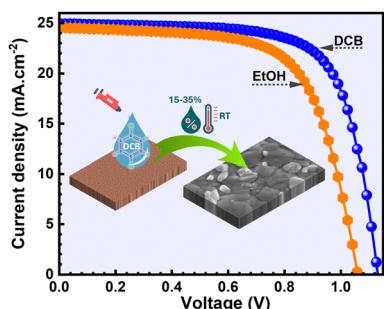
Between carbide and nitride MAX phases: sol-gel assisted synthesis and characterization of the carbonitride phase $\text{Cr}_2\text{GaC}_{1-x}\text{N}_x$

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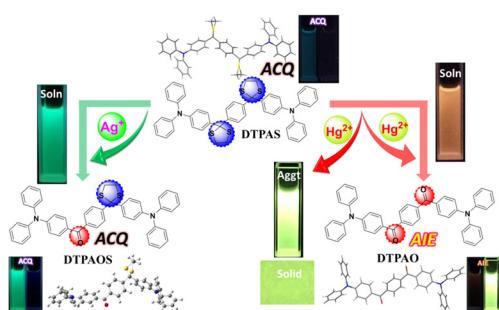


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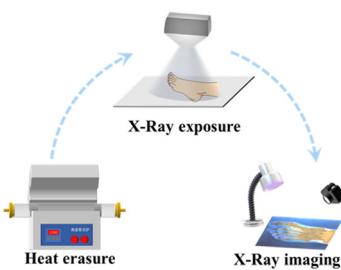
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**Anti-solvent engineering enables efficient ambient-processed halide perovskite solar cells**Ivy M. Asuo,* Arezo Mahdavi Varposhti,
Enrique D. Gomez and Nutifafa Y. Doumon*

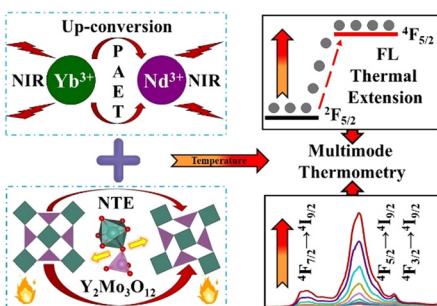
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**A novel fluorescent chemosensor enables dual-channel selective "turn-on" detection of Hg^{2+} and Ag^+ via distinct thiophilic effects, essential mechanisms, and excellent sensing performance for mercury(II) in aggregated states**Zhijun Ruan,* Xinyi Dong, Tao Long,* Shanshan Liu,
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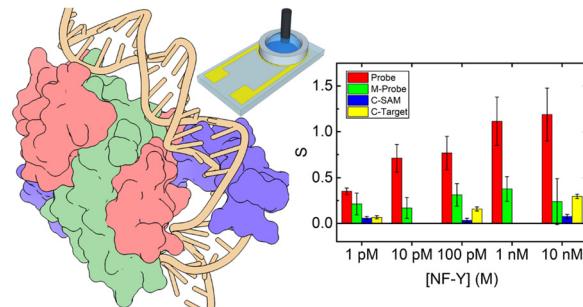
**Thermally enhanced NIR up-conversion fluorescence multimode thermometry based on $\text{Y}_2\text{Mo}_3\text{O}_{12}:\text{Nd}^{3+},\text{Yb}^{3+}$** Yexuan Zhang, Minkun Jin, Wang Chen, Ziyang Wu,
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Investigation of transcription factor–DNA binding with electrolyte-gated organic transistors

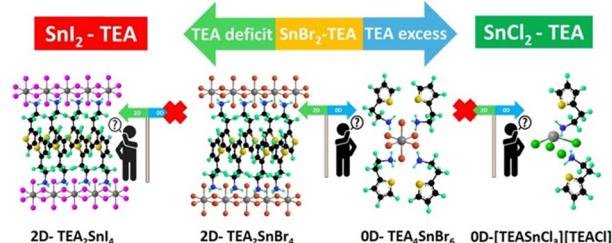
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Chemically driven dimensionality modulation of hybrid tin(II) halide perovskite microcrystals

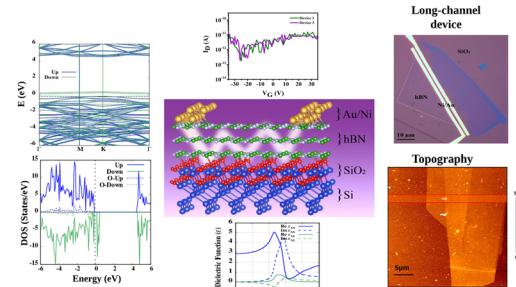
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Current-in-plane tunneling measurement of oxygen-functionalized few-layer boron nitride lateral barriers

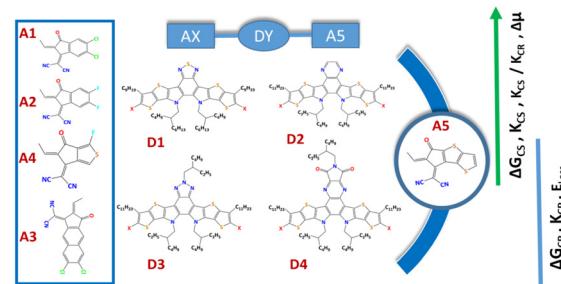
Ziba Torkashvand, Kavoos Mirabbaszadeh,* Farzaneh Shayeganfar,* Pawan Kumar Srivastava, Changgu Lee and Mohadese Beigtan



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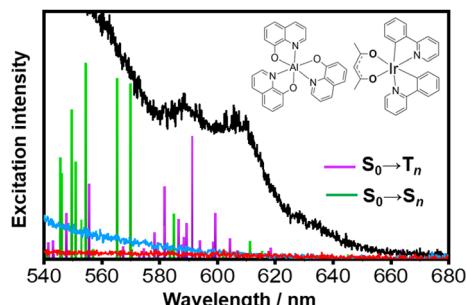
Unveiling symmetry: a comparative analysis of asymmetric and symmetric non-fullerene acceptors in organic solar cells

Rudranarayan Khatua and Anirban Mondal*



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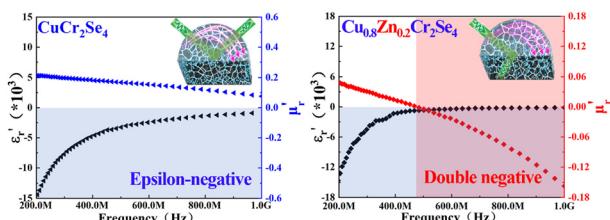
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Crystalline confinement leads to broadening of absorption spectra through activated spin-forbidden transitions in $\text{Alq}_3\text{-Irppy}_2\text{acac}$ engineered crystals

Yufang Nie, Heming Zhang*, Jiaxuan Wang, Lianbao Ke, Semion K. Saikin*, Hai Bi, Wangqiao Chen and Guofu Zhou*

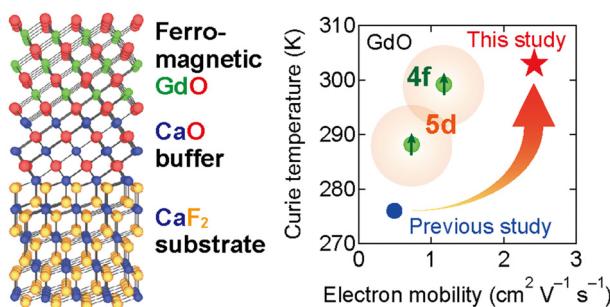
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Modified Lossy epsilon-negative CuCr_2Se_4 toward single-phase metamaterials with double negative parameters via Zn doping

Zechao Xu, Weiyi Lu, Kelan Yan*, Runhua Fan and Ningzhong Bao*

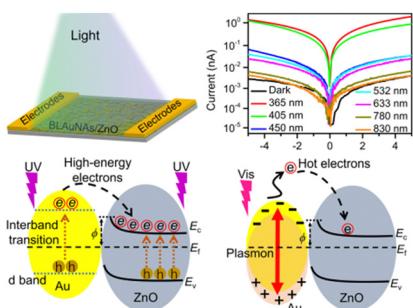
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Enhanced Curie temperature near 300 K in highly crystalline GdO epitaxial thin films concomitant with an anomalous Hall effect

Takato Fukasawa, Dai Kutsuzawa, Daichi Oka*, Kenichi Kaminaga, Daichi Saito, Hirokazu Shimizu, Hiroshi Naganuma and Tomoteru Fukumura*

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Heterostructures made from bone-like plasmonic Au nanoantennas and ZnO quantum dots for broadband photodetectors

Bingwu Liu, Xi Xie, Yuan Feng, Pu Chen, Dong Li, Huan Cheng, Changjun Min*, Qinglin Zhang* and Jiawen Hu*

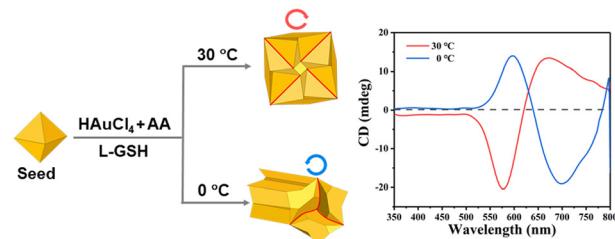


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Tuning chiral morphology of gold nanoparticles with reversed chiral signals by adjusting the reaction temperature of the seed-mediated growth process

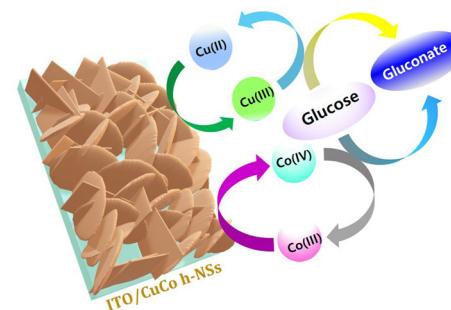
Qingyuan Liu, Miao Zhang, Chunli Xu* and Baoxin Li*



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Methionine-assisted electrodeposition of porous copper cobalt bi-metallic hetero-nanostructures on an indium tin oxide electrode: a disposable and stable electrode for non-enzymatic glucose sensing

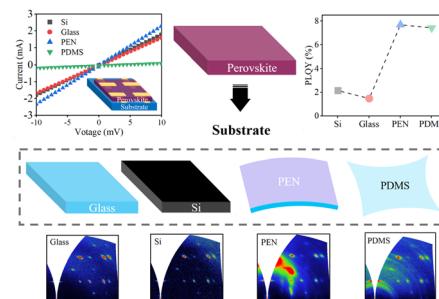
Perumal Viswanathan, Ji Won Kim, Shanmugam Manivannan and Kyuwon Kim*



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Substrate effects on structural and optoelectronic properties of quasi-2D perovskite films

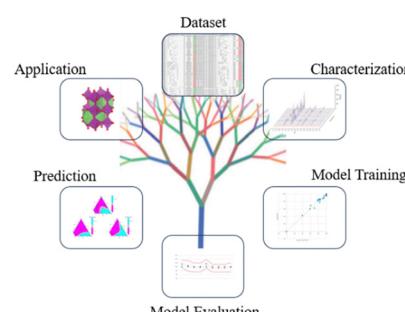
Chenyu Hu, Zhenmei He, Shuochen Wang, Lixuan Kan, Sanfeng Lei, Xiang Zhu, Jinpeng Li, Kai Wang and Haomiao Yu*



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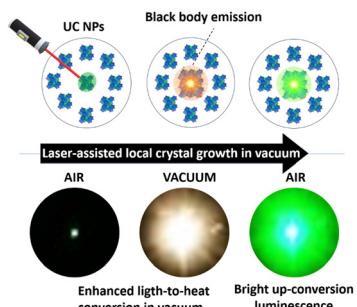
A chemometric approach for the design of lanthanum-based high entropy perovskite oxides

Luca Angelo Betti, Lisa Rita Magnaghi,* Aldo Bossetti, Raffaella Biesuz and Lorenzo Malavasi*



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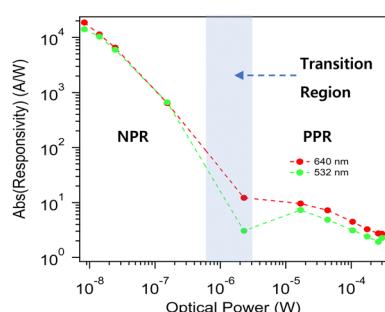
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Vacuum-assisted colossal enhancement of up-conversion luminescence of lanthanide-doped nanoparticles upon NIR laser irradiation – a new strategy for phosphor development

Christian Hernández-Álvarez * Kevin Soler-Carracedo, Przemysław Woźny, Inocencio R. Martín* and Marcin Runowski*

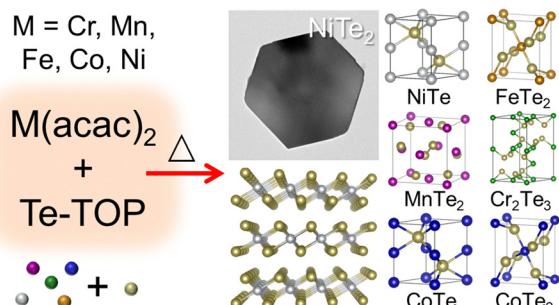
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Transition of photoresponsivity in graphene–insulator–silicon photodetectors

Hong-Ki Park and Jaewu Choi*

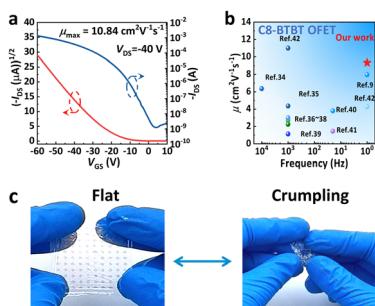
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General synthesis of magnetic binary transition metal telluride nanocrystals

Jingxia Wang, Bin Wang, Yifen Wang, Ruixia Yang, Lanfang Wang, Fang Wang, Xiaohong Xu and Yang Liu*

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Antisolvent polysulfone dielectric for ultrastable solution-processed high-performance conformal organic transistor array

Mingxin Zhang, Mengqiao Du, Yanhong Tong,* Xue Wang, Jing Sun, Shanlei Guo, Xiaoli Zhao, Qingxin Tang* and Yichun Liu

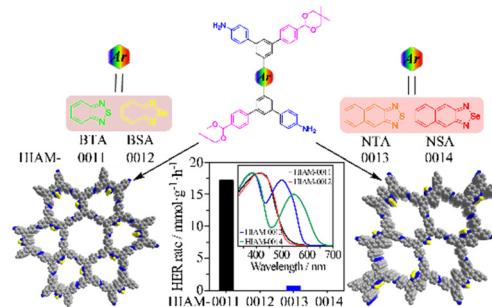


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Facile synthesis of benzothiadiazole and its derivative-based covalent organic frameworks using “two-in-one” monomers for photocatalytic hydrogen generation

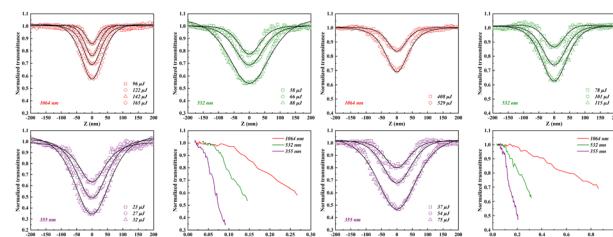
Jia-Xin Guo, Ze-Yang Wang, Chao-Qin Han, Shuai Sun, Lei Wang,* Gonghao Lu* and Xiao-Yuan Liu*



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2D Ta_4AlC_3 and Ta_4C_3 nanosheets with excellent ultraviolet optical limiting behavior for laser protection

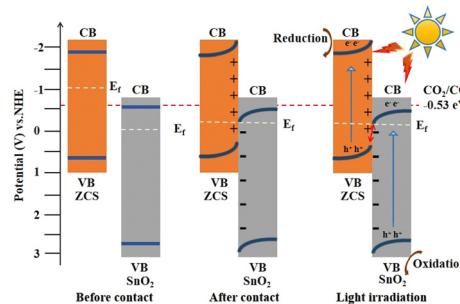
Binjian Du, Zhenyu Zhao, Zihan Ren, Qianhou Liu and Fang Zhang*



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Construction of a $Zn_{0.65}Cd_{0.35}S/SnO_2$ S-scheme heterojunction for efficient photocatalytic CO_2 reduction

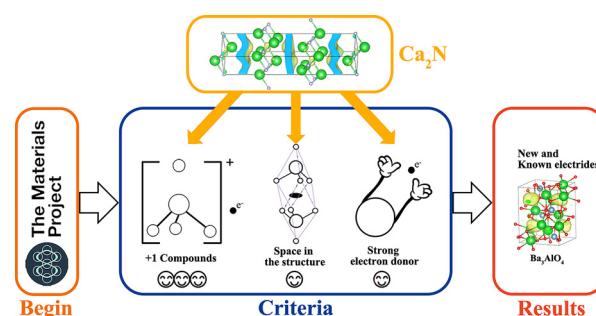
Tao Li, Xiong He, Junhao Wu, Guangyu Pan, Dandan Wang, Fan Zhang, Limin Gao,* Haiquan Xie and Kui Li*



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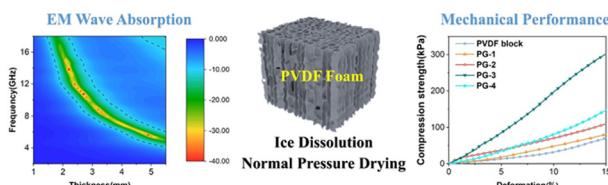
Assessing the design rules of electrides

Zhikun Yao, Yanzhen Zhao, Wenjun Zhang and Lee A. Burton*



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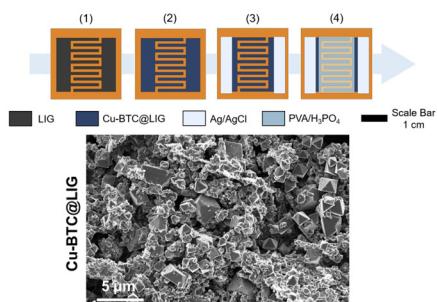
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Enhanced electromagnetic wave absorption and mechanical performances of graphite nanosheet/PVDF foams via ice dissolution and normal pressure drying

Xiaogang Su,* Yu Zhang, Jun Wang and Yaqing Liu*

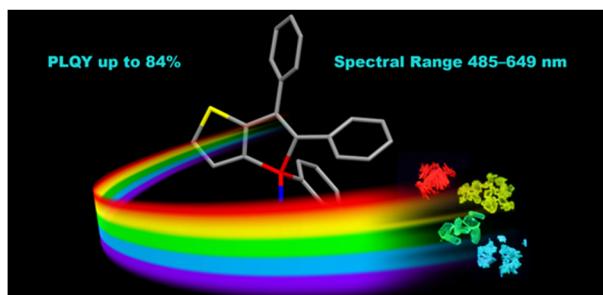
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Simple fabrication of laser-induced graphene functionalized with a copper-based metal-organic framework and its application in solid-state supercapacitors

Samuel Morales-Cámaras, Víctor Toral, Iñigo J. Vitorica-Yrezabal, Almudena Rivadeneyra, Luis Pereira, Sara Rojas and Francisco J. Romero*

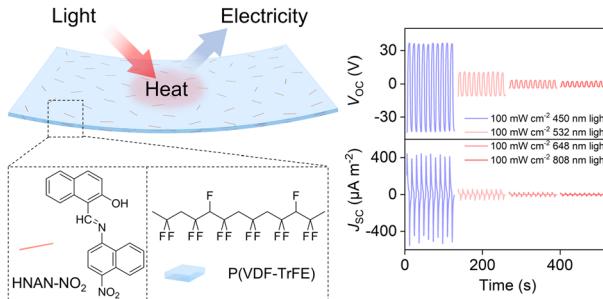
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Thieno[3,2-b]phosphole-based AIEgens: facile preparation and dual modulation of solid-state luminescence

Nils König, Justin Mahnke, Yokari Godínez-Loyola, Hendrik Weiske, Julian Appel, Peter Lönnecke, Cristian A. Strassert* and Evamarie Hey-Hawkins*

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Schiff base organic molecular crystals/ferroelectric polymer composite for photo-pyroelectric conversion

Zhaopeng Wang, Jie Liu and Baojin Chu*

