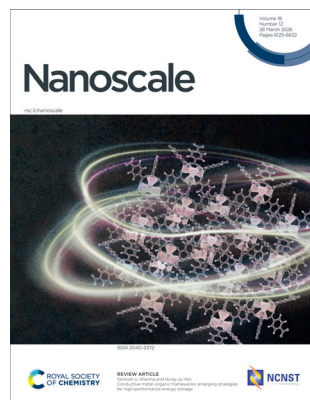


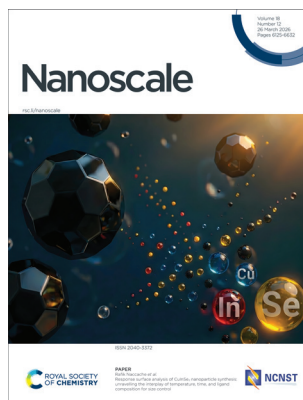
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See Santosh U. Sharma and Hung-Ju Yen, pp. 6139–6183.

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Inside cover
See Rafik Naccache *et al.*, pp. 6271–6281.

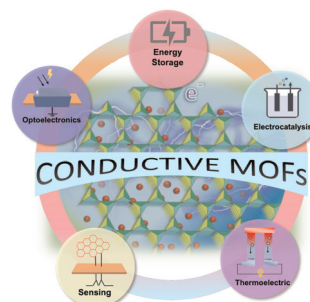
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REVIEWS

6139

Conductive metal–organic frameworks: emerging strategies for high-performance energy storage

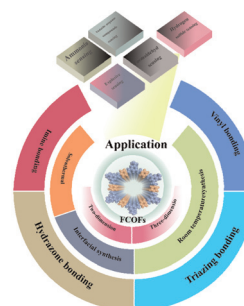
Santosh U. Sharma and Hung-Ju Yen*



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Application of fluorescent covalent organic frameworks in gas sensors

Qihuan Wu, Teng Yang, Junjun Shi, Liping Jia, Binghui Xie, Weilong Lu, Tong Zhao, Changxi Yu, Xiaojuan Mo, Wucheng Xie* and Jie Sheng*



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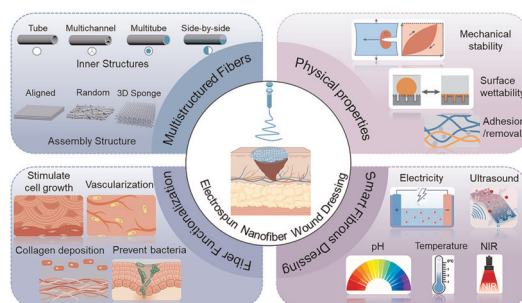
Fundamental questions
Elemental answers

REVIEWS

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Wound dressing applications of electrospun nanofibers: mechanism, construction and recent progress

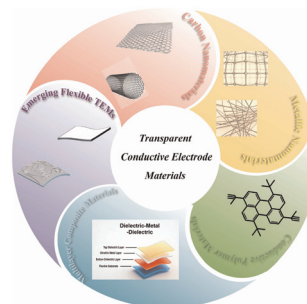
Yaqiong Wang,* Guichu Yue, Hongru Lu, Zhengjiang Liu, Nü Wang, Fuwei Liu,* Hongyu Yin* and Yong Zhao*



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Research progress and perspective of transparent electrode materials in flexible perovskite solar cells

Le Liu, Wenjie Zhu,* Lu Zi,* Xingtao Ma, Jun Zhao, Xurong Wang, Xinhui Zhang, Yanjie Liu and Xiaowei Fan*

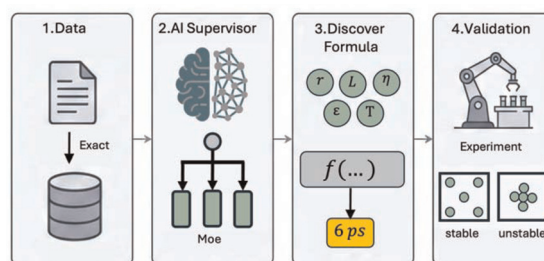


COMMUNICATIONS

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From AI discovery to macroscopic formula: a quasi-stability criterion for quantum dots inspired by Elon Musk's vision

Zhenhai Lai, Jiagen Li and Xi Zhu*

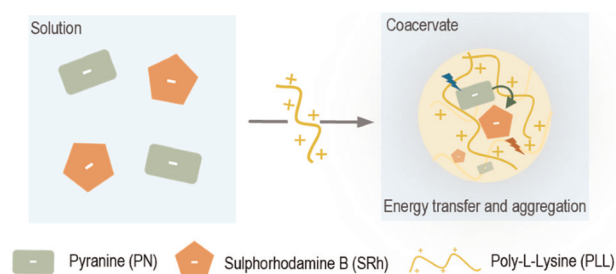


Mining Knowledge, Deriving a Formula, Predicting Stability

6259

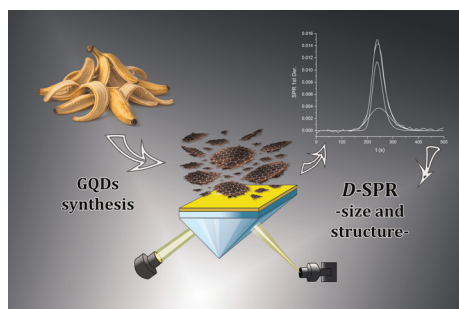
Coacervate microenvironments modulate fluorescent dye behaviour and Förster energy transfer dynamics

Mohit Kumar, Minea Kapidžić and Shikha Dhiman*



COMMUNICATIONS

6264

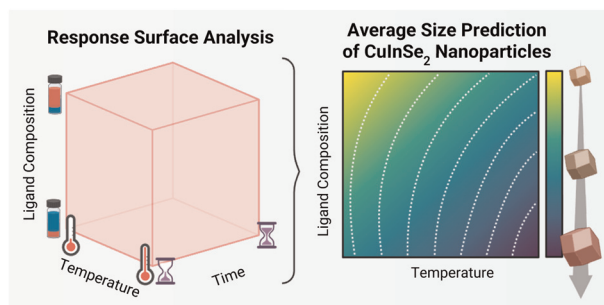


Surface plasmon resonance as a breakthrough tool for characterizing the size and shape of graphene quantum dots

Giuseppe Stefano Basile, Damiano Calcagno, Nunzio Tuccitto, Benoit Maxit, Pascal Boulet, Mélanie Emo, Liang Liu, Giuseppe Grasso* and Philippe Pierrat*

PAPERS

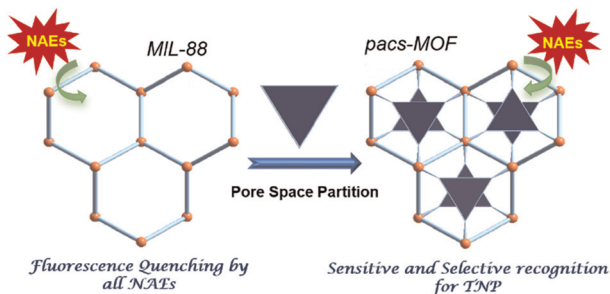
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Response surface analysis of CuInSe₂ nanoparticle synthesis: unravelling the interplay of temperature, time, and ligand composition for size control

Luis Páramo, Camilo Garcia-Henao, John A. Capobianco and Rafik Naccache*

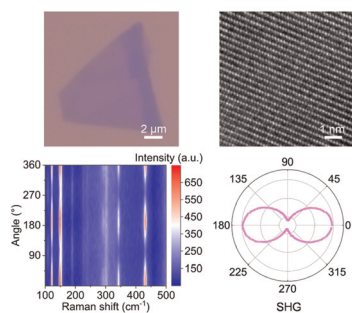
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Pore-space-partitioned metal–organic frameworks for sensitive and selective recognition of 2,4,6-trinitrophenol

Meng-Le Tuo, Nan Song, Chen-Chen Xing and Quan-Guo Zhai*

6293



In-plane optical anisotropy and nonlinear optical effects in 2D InTeO₃Cl

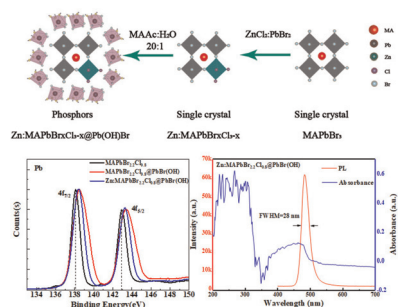
Zemin Zheng, Siyuan Li, Jiuxiang Dai, Ang Li, Xingxing Zhang, Mo Cheng, Zhitong Jin* and Lin Zhou*



6299

Solution-assisted layer peeling for stable and high-efficiency Zn:MAPbBr_xCl_{3-x}@PbBr(OH) cyan phosphors

Feng Chen,* Xuejie Peng, Kai Liu, Qingyi Zhang, Yi Zhang, Jiabin Yan, Yuxin Yang, Dawei Gu and Lei Wang



6309

Reshaping the oxidative stress microenvironment by bionic chiral Cu–Phe (D/L) nanozymes for promoting osteoimmunomodulation and osteogenic differentiation

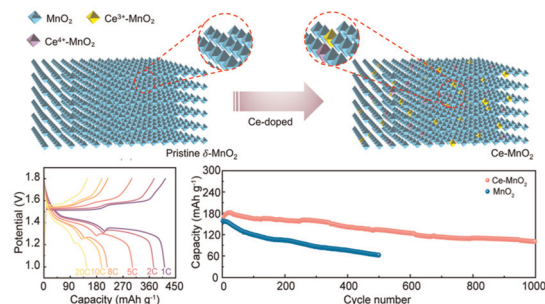
Shaoxiong Feng, Xu Peng, Xi Gao, Lian Jun Tang and Xixun Yu*



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A single-element heterovalent doping strategy stabilizing the cathode structure for reversible zinc-ion storage to power soft robotics

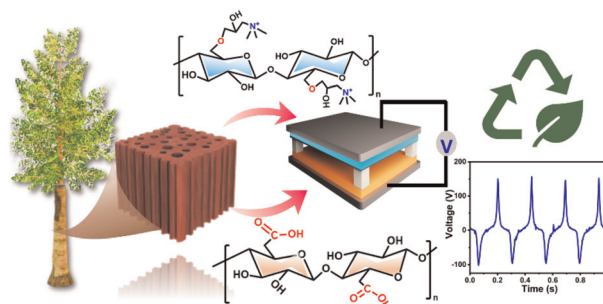
Yameng Zhu, Xiaona Wang,* Jiajia Xia, Xuechun Wang, Ying Kong, Yurong Zhou, Shuxuan Qu, Wei Feng* and Jiangtao Di*



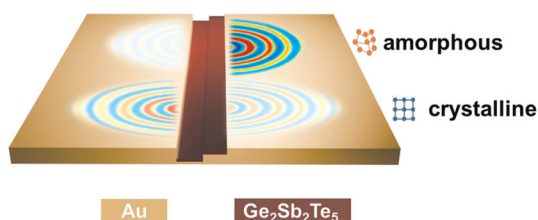
6329

Completely degradable bilayer functional-ionic wood heterostructure-derived nanogenerator for eco-friendly power generation

Vishu Verma, Ritik Mohanty, Romy Garg and Kaushik Parida*



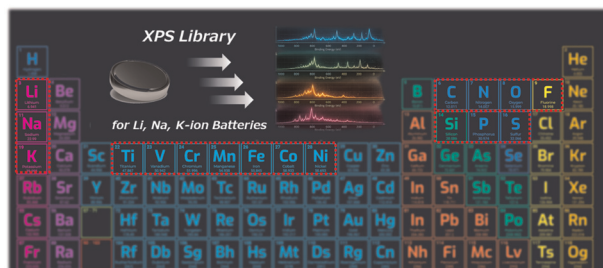
6342



Multilevel dynamic control of surface plasmon propagation direction using phase-change materials

Xianghua Liu, Ruxue Wang,* Ruotian Lu, Jiahao Peng, Chenyang Liu, Qianhong Gong, Peichuan Yin, Xinrui Lei, Qiwen Zhan and Aimin Wu*

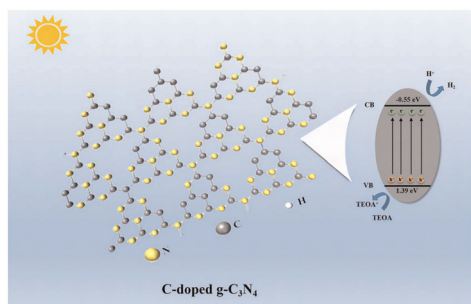
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X-ray photoelectron spectroscopy analysis of reference compounds for studying rechargeable Li-, Na-, and K-ion batteries

Ryoichi Tataru,* Shogo Yamazaki, Satoshi Yasuno and Shinichi Komaba*

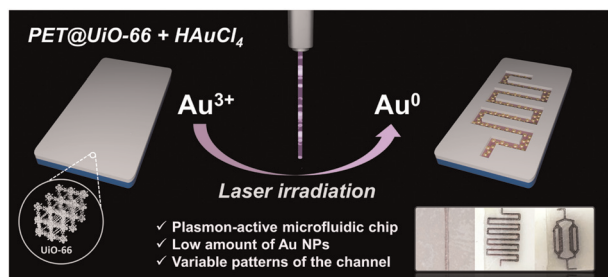
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Band structure engineering in porous g-C₃N₄ via tailoring surface carbon for enhanced photocatalytic hydrogen evolution

Junwen He, Shuben Ye, ZhiXin He, Yong Chen, Lihui Chen, Wenjun Ma, Ao Li,* Fu Yang* and Shuying Gao*

6369



Laser writing of plasmonic catalytic microchannels on UiO-66 layer

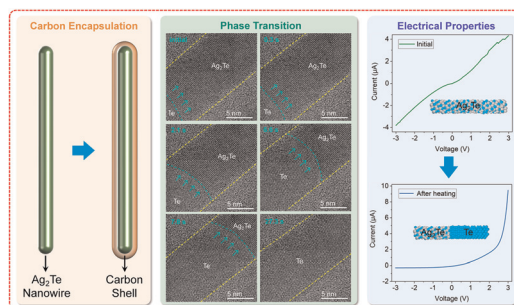
Alina Gorbunova, Swagato Sarkar, Dmitry Kogolev, Wanderson Ferraz do Valle, Markus Ostermann, Thomas Schachinger, Hradil Klaudia, Alexey Ivanov, Markus Valtiner, Pavel S. Postnikov* and Olga Guselnikova*



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Tailoring the phase transition pathway of Ag_2Te nanowires *via* surface confinement: an *in situ* transmission electron microscopy study

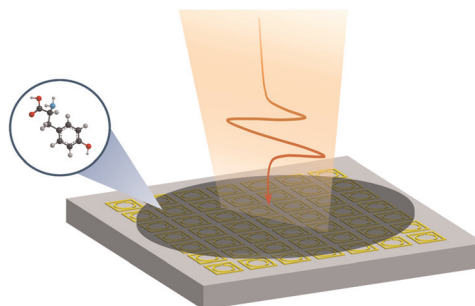
Lei Shangguan,* Ming-Yuan Wang, Hui-Jun Liang, Shuang-Ying Lei, Zhi-Qun Cheng, Long-Bing He* and Li-Tao Sun



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Ultrasensitive trace-analyte detection empowered by a quasi-BIC terahertz metasensor

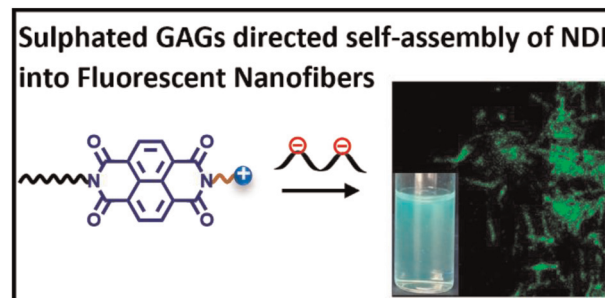
Tian Ma,* Zihao Chen, Jiangkun Tian, Yizu Zou, Doudou Wang, Guozhong Zhao, Depeng Kong and Jun Li



6399

Selective binding of sulphated glycosaminoglycans induces self-assembly of naphthalene diimide into fluorescent nanofibers

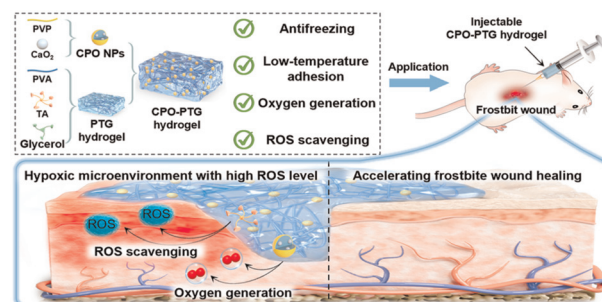
Poonam Sharma, Esteban Fernández-Pedraza López, Beatriz Cantero Nieto, Annalisa Calò, Subhadip Ghosh, Paula Rodríguez, Xavier Companyó, Bart Limburg and Mohit Kumar*



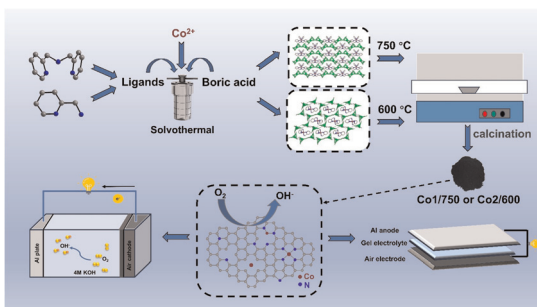
6409

CaO_2 nanoparticle-loaded injectable hydrogel with sustained oxygen release and ROS-scavenging functions for accelerating frostbite wound healing at high altitude

Qinsheng Hu, Shiyang Lang, Yangrui Du, Hexin Zhou, Miao Liu,* Qiao Jin,* Kaijun Li* and Gongyan Liu



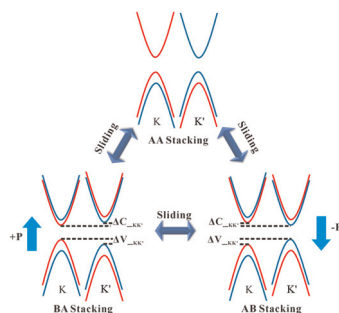
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Pyridylamine templated borate-derived Co nanoparticles anchored on N-doped carbon for enhanced oxygen reduction reaction in Al–air batteries

Xiao-Ting Zhang, Cun-Mao Chen, Qi-Ming Huang and Chun-Yang Pan*

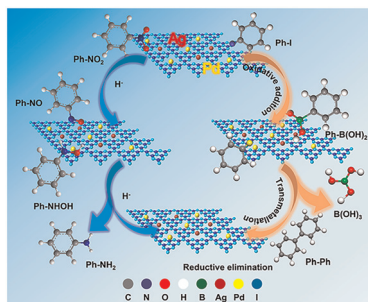
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Sliding ferroelectricity and ferroelectricity-valley coupling in Janus RuXY (X, Y = Cl, Br, I) bilayers

Shuisheng Yi, Peiyao Chen, Yumin Liao, Xumin Chen* and Dexuan Huo

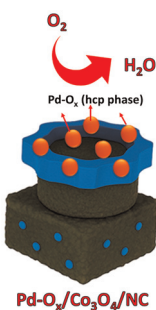
6442



Ag/Pd bimetallic sites embedded in g-C₃N₄ nanosheets synergistically catalyze Suzuki coupling and nitroaromatic reduction reactions

Gongshu Wang,* Aiye Shi, Nannan Wang, Feng Xue* and Jianshe Hu*

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Epitaxial growth of hexagonal Pd on Co₃O₄/NC heterostructures for high-performance ORR electrocatalysis

Fatima Nasim, Muhammad Sajid, Guobao Xu* and Muhammad Arif Nadeem*

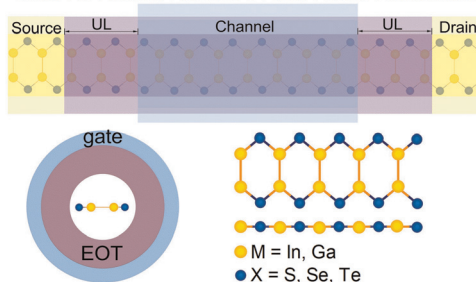


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Sub-5 nm one-dimensional post-transition-metal monochalcogenide gate-all-around MOSFETs

Xiao-Lu Duan, Yan-Dong Guo,* Ye-Wei Chen, Yue Jiang,* Hao-Ran Hu, Man-Jun Jiang, Xing-Yu Ma, Jie-Ling Hu, Cheng-Biao Lin, Fan Guo,* Hong-Li Zeng* and Xiao-Hong Yan

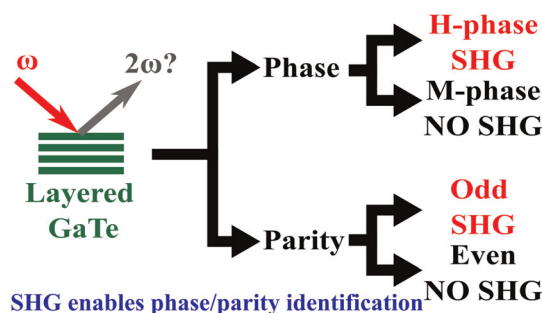
Gate-All-Around Nanowire Field-Effect Transistors



6481

Layers and phase identification of h- and m-GaTe via second harmonic generation

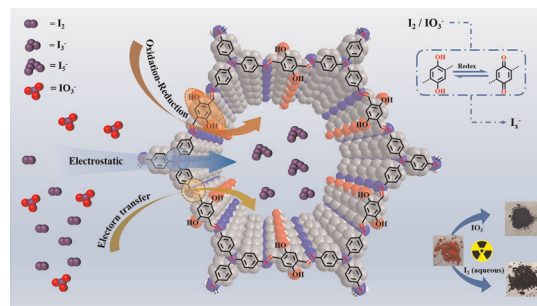
Shi Qiu, Hongsheng Liu, Juan Hou, Zhongran Wei,* Hu Jiang* and Junfeng Gao*



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Designing atomically precise and robust covalent organic frameworks for enhanced iodine/iodate uptake: structures with and without phenol hydroxy groups

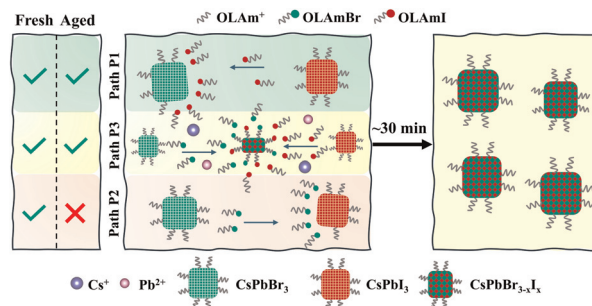
Qianyi Zuo, Xin Zheng, Aokun Jia, Tao Jiang, Bing Han,* Jiahong Pan and Zhuoyu Ji*



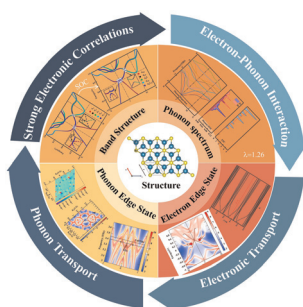
6501

Do the halide ions exchange and mix the same way in fresh and aged CsPbI₃-CsPbBr₃ perovskite nanocrystal mixtures?

Subitan Laskar and Chandran Sudakar*



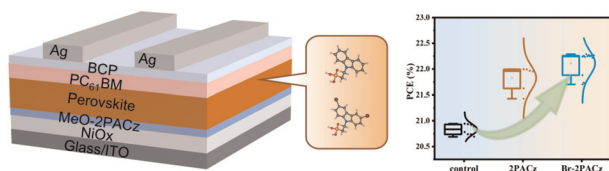
6512



Interwoven electronic and phononic topologies *via* electron–phonon coupling and locality-engineered edge states in monolayer ZrBr

Jinghua Zhao, Zhengxin Yan,* Yu Wang, Chen Qi, Kezhao Xiong and Zhaoqi Wang

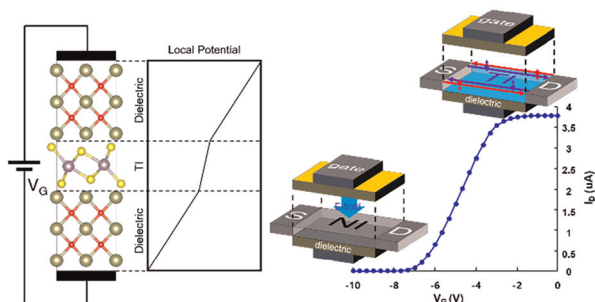
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Bromine-functionalized carbazole derivatives in perovskite precursors: defect passivation for enhanced perovskite photovoltaics

Qianwen Cao, Lifang Wu, Ye Wang, Hengji Li, Xiaojie Liu, Tenglong Xu, Qiling Xiao, Chang Xue, Xingli Zou, Tianhao Wu,* Emilio J. Juarez-Perez, Marta Haro, S. B. Donaev* and Shenghao Wang*

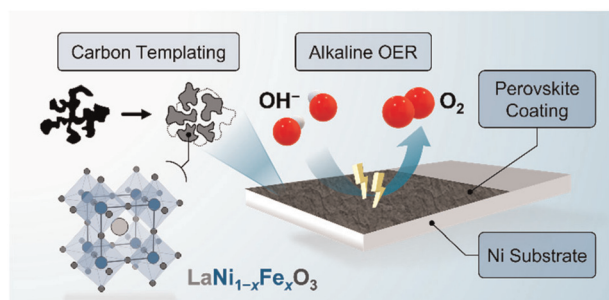
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First-principles modeling of electrostatics and transport in 2D topological transistors

Hyeonseok Choi, Yosep Park, Subeen Lim and Yeonghun Lee*

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High surface area mixed lanthanum nickelate/ ferrates ($\text{LaNi}_{1-x}\text{Fe}_x\text{O}_3$) *via* modified carbon templating coated on nickel in alkaline OER

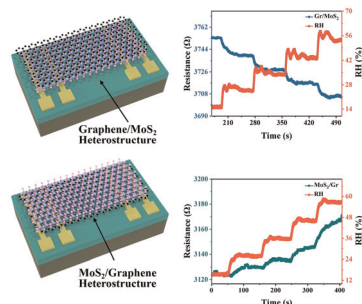
Nikolas Mao Kubo, Harol Moreno Fernández, Ilias Efthimiopoulos, Leila Novalic, Martin Rabe, Jan P. Hofmann and Regina Palkovits*



6554

Humidity sensing characteristics of graphene and MoS₂ as well as their heterostructures with different stacking configurations

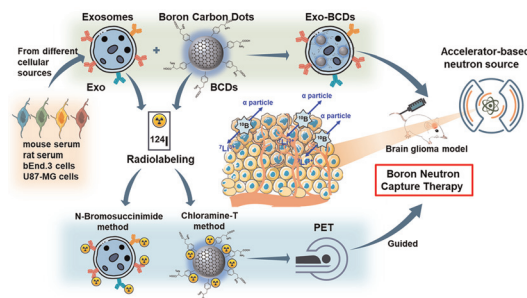
Hongliang Ma, Qiang Gao, Zhe Zhang, Kaige Yang, Jiayin Li, Yabin Chen, Jie Ding,* Wendong Zhang* and Xuge Fan*



6564

An ¹²⁴I-radiolabeled exosome-based treatment platform for enhanced boron neutron capture therapy: precise delivery and real-time PET tracking of boron

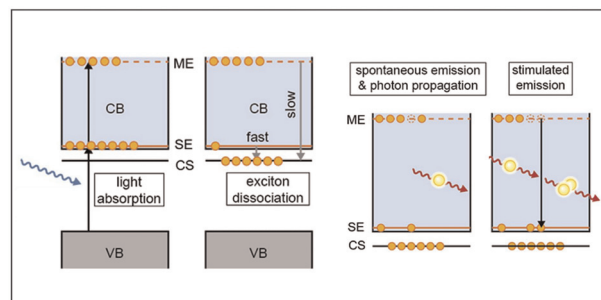
Ziteng Chen, Zhijie Wang, Mingxin Yang, Ruyu Yan, Linwen Lv, Ya-nan Chang, Kui Chen, Wenjiang Yang, Hui Yuan, Xiangxi Meng, Lingbo Zhu, Zhi Yang, Gengmei Xing* and Juan Li*



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Unravelling the amplified spontaneous emission mechanism in three-dimensional metal halide perovskites

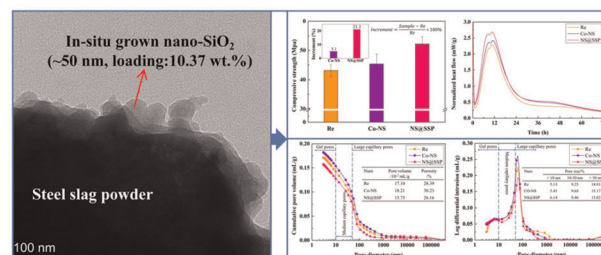
Gayoung Lee, Jinhong Kim, EunSeo Jang, Hyeonji Lee, Yejin Jun, Minhyuk Lee, JunWoo Kim* and Kwangdong Roh*



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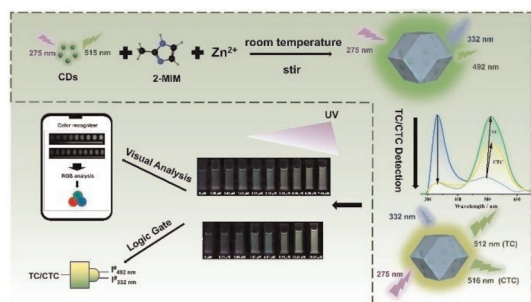
Controllable *in situ* growth of highly dispersed nano-SiO₂ on steel slag powder for enhancing cement-based materials

Feifei Zhou, Renjie Mi, Ganghua Pan,* Qingping Wang, Jiufu Zhang, Hailong Sun, Saqib Iqbal and Jiayu Sun



PAPERS

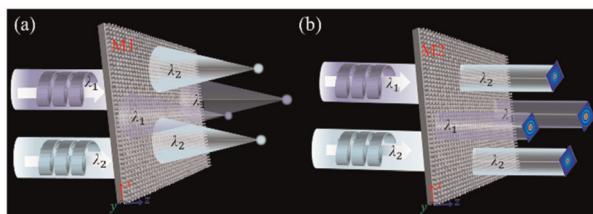
6605



A ratiometric fluorescent sensor based on carbon dots encapsulated in ZIF-8 for visual discrimination and detection of tetracycline and chlortetracycline

Jin Wang, Baojie Liu, Jixing Liang, Hongguo Hao, Yaoyao Wang, Yunwu Li* and Suna Wang*

6618



Arbitrary independent wavefront shaping at dual frequency with an all-silicon metasurface

Susu Hu, Zetao Xu, Li Wei,* Bo Dai,* Songlin Zhuang and Dawei Zhang

CORRECTION

6629

Correction: Mechanism of RGD-conjugated nanodevice binding to its target protein integrin $\alpha_v\beta_3$ by atomistic molecular dynamics and machine learning

Giulia Frigerio, Edoardo Donadoni, Paulo Siani, Jacopo Vertemara, Stefano Motta, Laura Bonati, Luca De Gioia and Cristiana Di Valentin*

