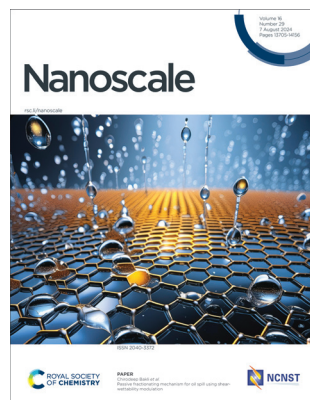


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Cover

See Chirodeep Bakli *et al.*, pp. 13885–13894.

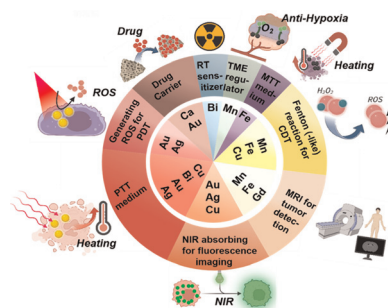
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REVIEWS

13718

Nature-inspired protein mineralization strategies for nanoparticle construction: advancing effective cancer therapy

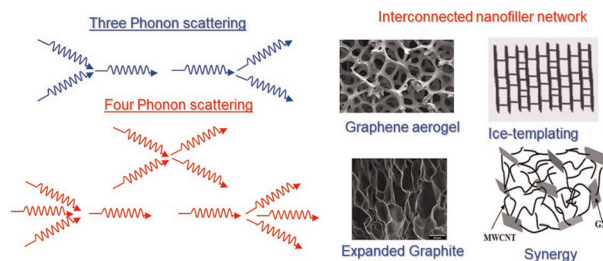
Yuan Cao, Rui Xu, Yixia Liang, Jiabao Tan, Xiaotang Guo, Junyue Fang, Shibo Wang* and Lei Xu*



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Role of four-phonon processes in thermal conductivity of two-dimensional materials and thermal-transport enhancement arising from interconnected nanofiller networks in polymer/nanofiller composites

Swapneel Danayat, Zarin Tasnim Mona, Avinash Singh Nayal, Roshan Sameer Annam and Jivtesh Garg*



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Fundamental questions
Elemental answers

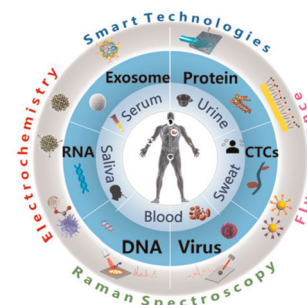


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Recent advances of biocompatible optical nanobiosensors in liquid biopsy: towards early non-invasive diagnosis

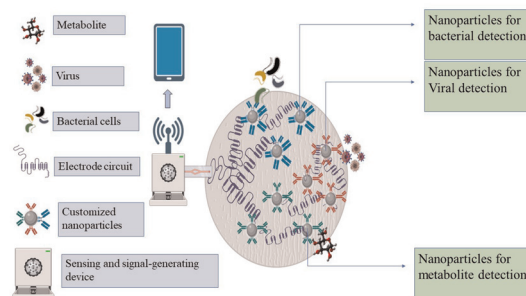
Na Ya, Dangui Zhang, Yan Wang, Yi Zheng, Mo Yang,* Hao Wu* and Gerile Oudeng*



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Breaking boundaries in microbiology: customizable nanoparticles transforming microbial detection

Aboobacker P A,* Latha Ragunathan, Thiyagarajan Sanjeevi, Aravind C. Sasi, Kavitha Kannian, Richa Yadav and Ravikumar Sambandam

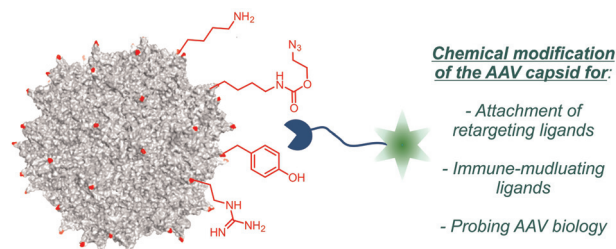


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Chemical approaches to probe and engineer AAV vectors

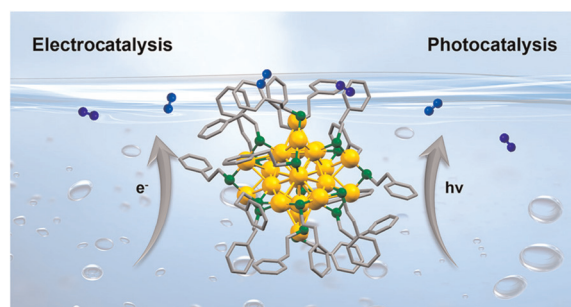
Quan Pham, Jake Glicksman and Abhishek Chatterjee*



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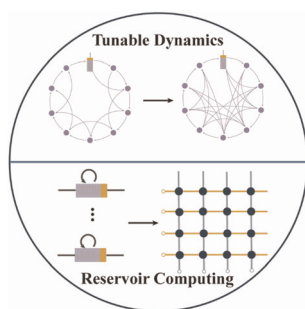
Hydrogen production catalysed by atomically precise metal clusters

Tongxin Song, Xiao Cai and Yan Zhu*



MINIREVIEWS

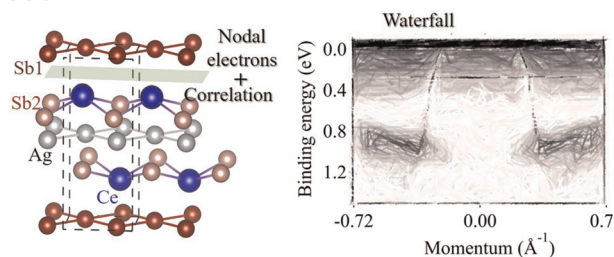
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**Dynamic memristor for physical reservoir computing**

Qi-Rui Zhang, Wei-Lun Ouyang, Xue-Mei Wang, Fan Yang, Jian-Gang Chen, Zhi-Xing Wen, Jia-Xin Liu, Ge Wang, Qing Liu* and Fu-Cai Liu*

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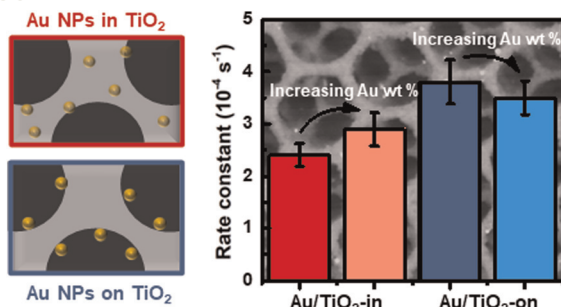


Nodal electrons + Correlation → waterfall (kink)

Anomalies in the Dirac bands in the proximity of correlated electrons

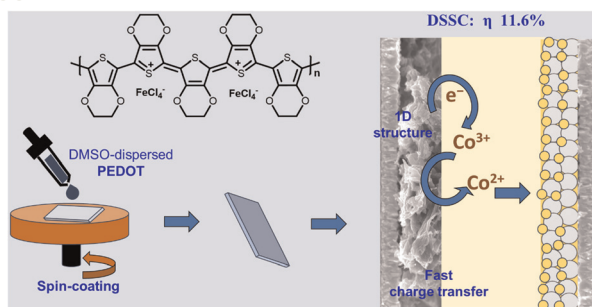
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Marianne Bijl, Kang Rui Garrick Lim, Sadhya Garg, Natalie J. Nicolas, Nienke L. Visser, Michael Aizenberg, Jessi E. S. van der Hoeven* and Joanna Aizenberg*

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**Chemically synthesized poly(3,4-ethylenedioxythiophene) conducting polymer as a robust electrocatalyst for highly efficient dye-sensitized solar cells**

Masud, Md. Aftabuzzaman, Haoran Zhou, Saehyun Kim, Jaekyung Yi, Sarah S. Park, Youn Soo Kim* and Hwan Kyu Kim*

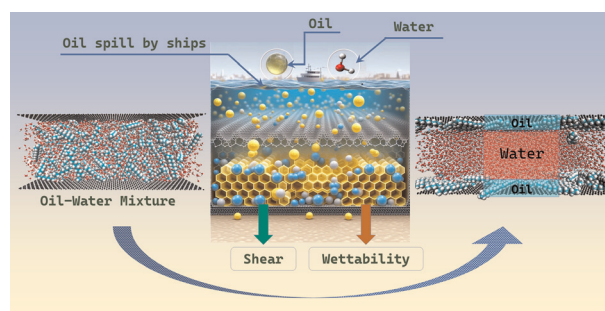


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Passive fractionating mechanism for oil spill using shear-wettability modulation

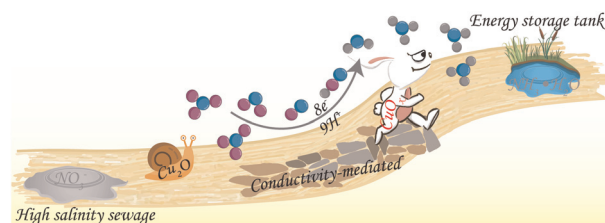
Vinay Arya, Abhirup Chaudhuri and Chirodeep Bakli*



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Conductivity-mediated *in situ* electrochemical reconstruction of CuO_x for nitrate reduction to ammonia

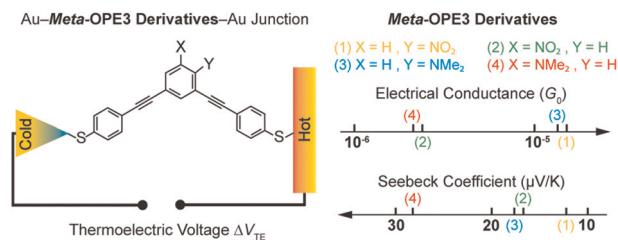
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How substituents tune quantum interference in meta-OPE3 molecular junctions to control thermoelectric transport

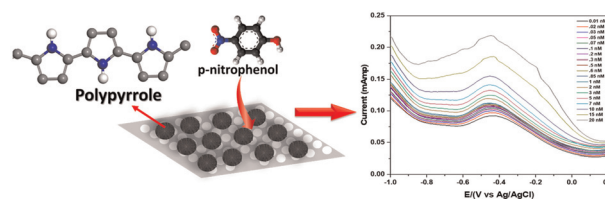
Shen Yan, Yuxuan Luan, Hailiang Xu, Hao Fan, León Martín, Arvind Kumar Gupta, Heiner Linke,* Edgar Meyhofer,* Pramod Reddy,* Fabian Pauly* and Kenneth Wörnmark*



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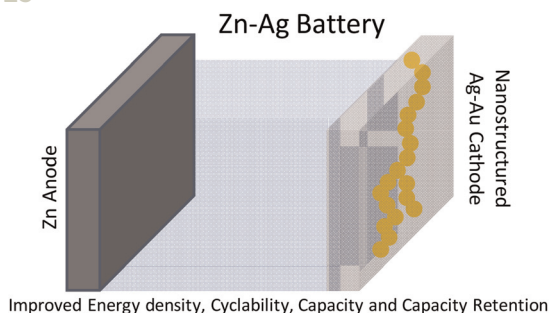
Efficient detection of *p*-nitrophenol via a polypyrrole flower-decorated nickel foam-based electrochemical sensor

Shiv Dutta Lawaniya, Gaurav Pandey, Yeontae Yu and Kamalendra Awasthi*



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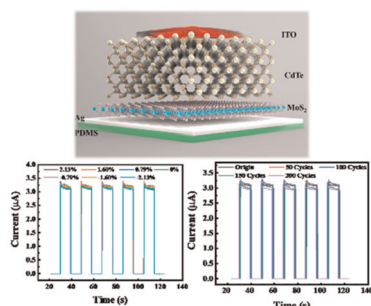
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Enhancement of the electrochemical performance of zinc–silver batteries with a gold nano-scaffold

Pritha Mondal, Ajeet Kumar Rana, Subham Kumar Saha, Akhila Subhakumari, Navyashree Vasudeva, Naga Phani B. Aetukuri and Anshu Pandey*

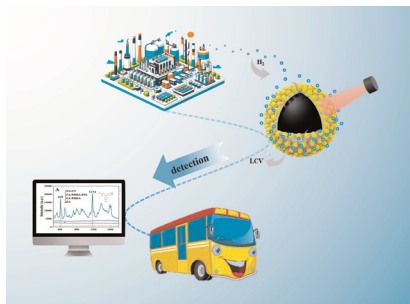
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High-performance flexible photodetectors based on CdTe/MoS₂ heterojunction

Shuo Yang, Yunjie Liu, Yupeng Wu, Fuhai Guo, Mingcong Zhang, Xinru Zhu, Ruqing Xu and Lanzhong Hao*

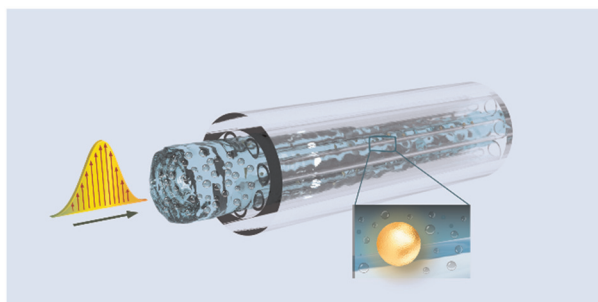
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Crystal violet-modified Fe₃O₄@Au SERS probes: a novel highly sensitive method for H₂ detection

Dan Xie, Youyou Deng, Xunlong Ji, Yiyan Zhang, Wentao Zhang, Zijin Hong, Wenjing Liu, Jingjing Du and Zhenli Sun*

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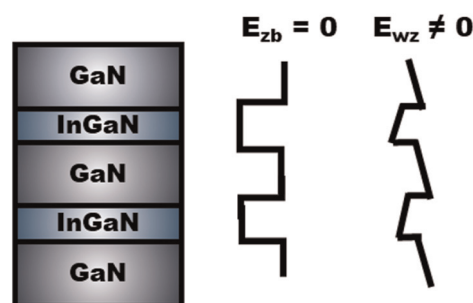


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Efficiency droop in zincblende InGaN/GaN quantum wells

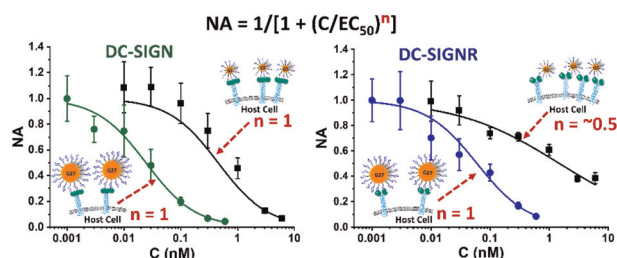
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Probing scaffold size effects on multivalent lectin–glycan binding affinity, thermodynamics and antiviral properties using polyvalent glycan-gold nanoparticles

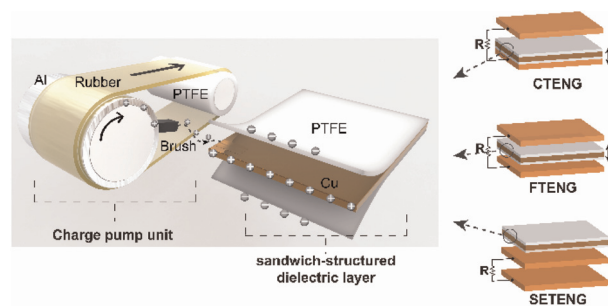
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Performance optimization and comparison of vertical motion-based triboelectric nanogenerators

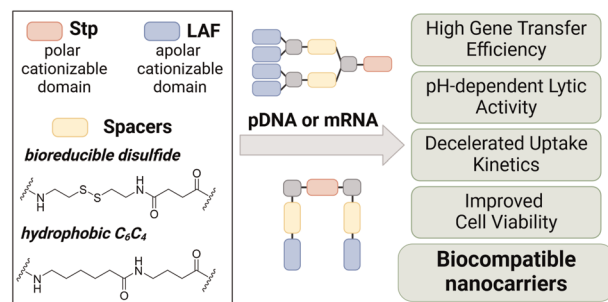
Wenwu Zhu, Jun Peng,* Ao Qin, Kanglong Yuan, Boshi Zhu, Shuai Lang, Jiliang Ma, Chuang Sun and Xuefeng Chen*



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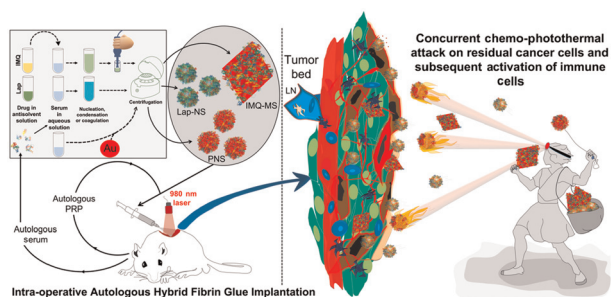
Modulating efficacy and cytotoxicity of lipoamino fatty acid nucleic acid carriers using disulfide or hydrophobic spacers

Ricarda C. Steffens, Sophie Thalmayr, Eric Weidinger, Johanna Seidl, Paul Folda, Miriam Höhn and Ernst Wagner*



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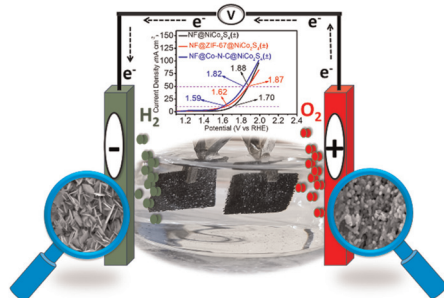
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Shielding against breast tumor relapse with an autologous chemo-photo-immune active Nano–Micro-Sera based fibrin implant

Mimansa, Mohammad Adeel Zafar, Dinesh Kumar Verma, Reena Das, Javed Naim Agrewala and Asifkhan Shanavas*

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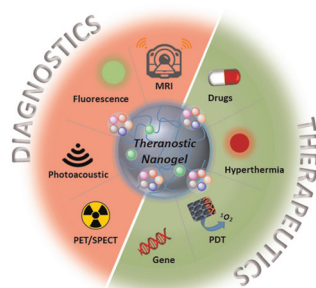


ZIF-67-derived Co–N–C supported nickel cobalt sulfide as a bifunctional electrocatalyst for sustainable hydrogen production via alkaline electrolysis

Sumit, Apurba Borah, Sathishkumar Palaniyappan and Gaddam Rajeshkhanna*

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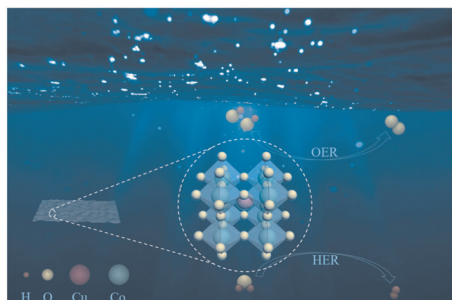


Theranostic nanogels: multifunctional agents for simultaneous therapeutic delivery and diagnostic imaging

Ismail Altinbasak, Yasin Alp, Rana Sanyal and Amitav Sanyal*

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Ferroelectric modulation of CuCo_2O_4 nanorods for controllable alkaline water electrolysis

Ruixue Zhang, Jing Wang, Qiyan Sun, Fuyuan Cao, Guang-Rui Xu,* Yu Miao, Chuanfang Zhang, Zexing Wu and Lei Wang*

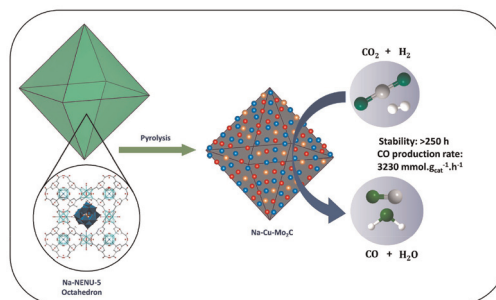


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Polyoxometalate-HKUST-1 composite derived nanostructured Na–Cu–Mo₂C catalyst for efficient reverse water gas shift reaction

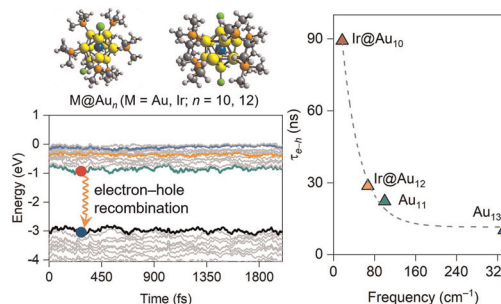
Gaje Singh, Satyajit Panda, Siddharth Sapan, Jogender Singh, Pranay Rajendra Chandewar, Ankush V. Biradar, Debaprasad Shee and Ankur Bordoloi*



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Doping-mediated excited state dynamics of diphosphine-protected M@Au₁₂ (M = Au, Ir) superatom nanoclusters

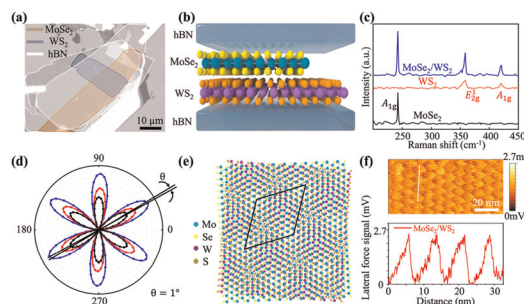
Wei Pei,* Lei Hou, Jing Yang, Si Zhou* and Jijun Zhao*



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Twist angle-dependent interlayer hybridized exciton lifetimes in van der Waals heterostructures

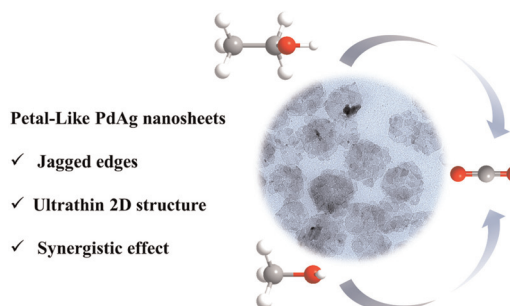
Shihong Chen, Zejun Sun, Huan Liu,* Haowen Xu, Chong Wang, Rui Han, Zihao Wang, Shuchun Huang, Xiaoliang Zhao, Zekai Chen, Weizhou Li* and Dameng Liu*



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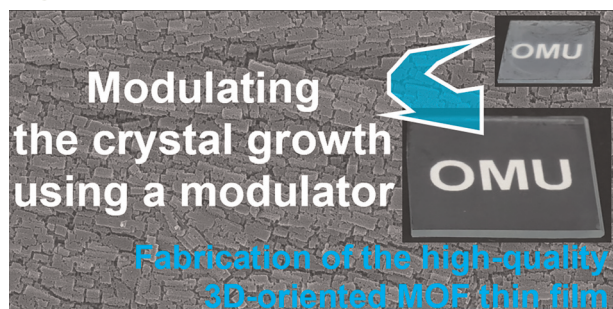
2D petal-like PdAg nanosheets promote efficient electrocatalytic oxidation of ethanol and methanol

Yuhua Xu, Jie Li, Mengyun Hu, Zhengying Wu* and Yukou Du*



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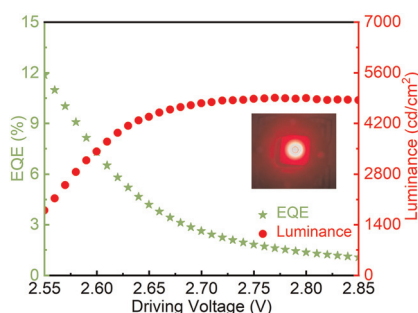
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Improved optical quality of heteroepitaxially grown metal–organic framework thin films by modulating the crystal growth

Yuka Koseki, Kenji Okada,* Shotaro Hashimoto, Shun Hirouchi, Arisa Fukatsu and Masahide Takahashi*

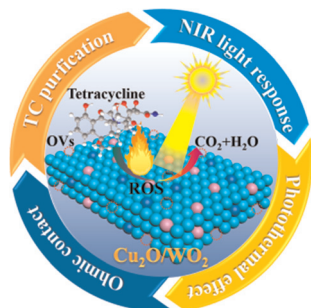
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Efficient open-air synthesis of Mg^{2+} -doped CsPbI_3 nanocrystals for high-performance red LEDs

Jiaying Zheng, Jiwei Ma, Minghuai Yu, Hao Xie, Dongdong Yan,* Yihong Dong, Yi Liu, Xiaoyu Wang and Weixiang Ye*

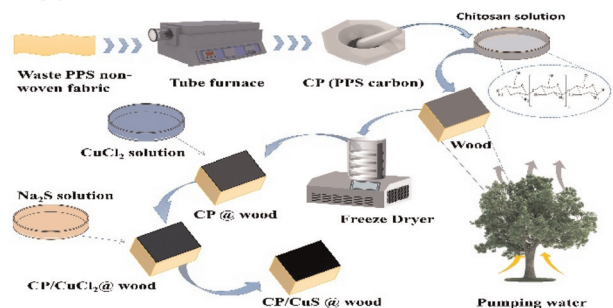
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Mechanistic insight into near-infrared light-driven $\text{Cu}_2\text{O}/\text{WO}_2$ Ohmic contact photothermal catalysts for high-efficiency antibiotic wastewater purification

Jihui Li, Shaodong Sun,* Jieli Lyu, Xiaojing Yu, Jiaqing Zhao, Man Yang, Bian Yang, Qing Yang and Jie Cui*

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Solar-driven water evaporation using a collaborative photothermal conversion material system based on carbonized waste polyphenylene sulfide and copper sulfide

Xuejing Wei, Zixuan Zou, Meng Liao, Liumi Deng, Jiayi Yao, Li Sun, Shaohua Chen,* Yuhao Liu* and Jiayue Chen*



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Coatable strain sensors for nonplanar surfaces

Chan Park, Jungmin Kim, Jeongbeom Kang,
Byeongjun Lee, Haran Lee, Cheoljeong Park,
Jongwon Yoon, Chiwon Song, Hojoong Kim,
Woon-Hong Yeo and Seong J. Cho*

