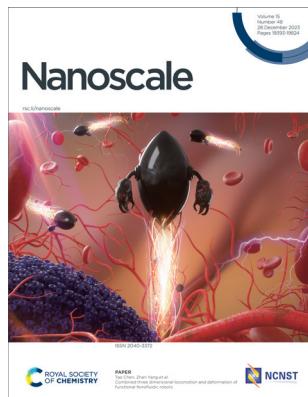


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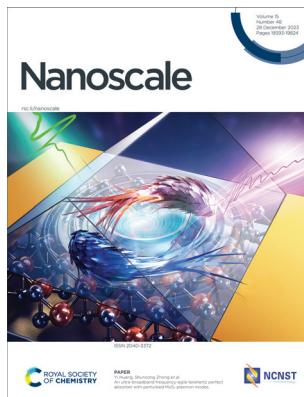
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See Tao Chen, Zhan Yang et al., pp. 19499–19513.

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Inside cover

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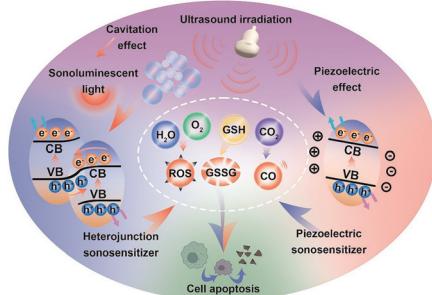
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Sonocatalytic cancer therapy: theories, advanced catalysts and system design

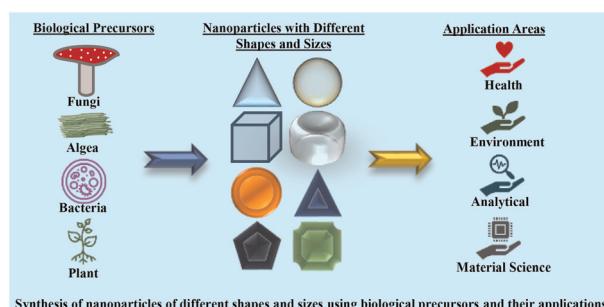
Ruiyan Li, Xuan Wang, Jiacheng Shi, Yong Kang* and Xiaoyuan Ji*



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Biogenic synthesis of novel nanomaterials and their applications

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Synthesis of nanoparticles of different shapes and sizes using biological precursors and their applications



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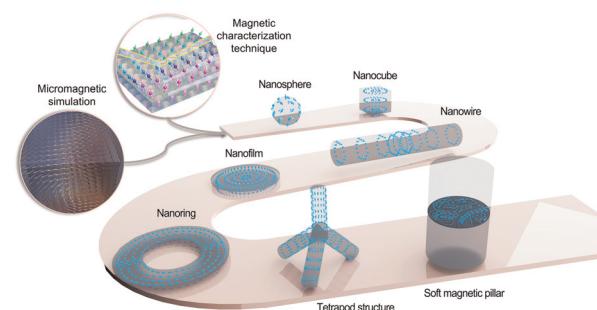
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Magnetic characterization techniques and micromagnetic simulations of magnetic nanostructures: from zero to three dimensions

Xin Li, Zhaolian Wang, Zhongyun Lei, Wei Ding, Xiao Shi, Jujian Yan and Jianguang Ku*

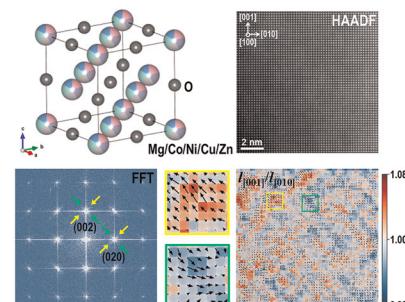


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Sub-Ångstrom-scale structural variations in high-entropy oxides

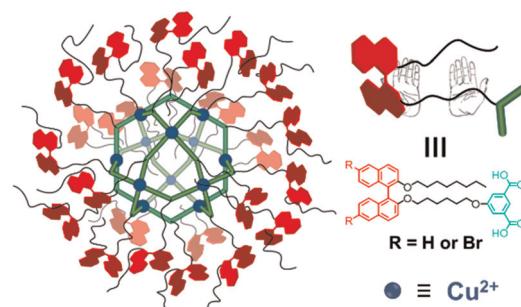
Hanbin Gao, Ning Guo, Yue Gong, Lu Bai, Dongwei Wang and Qiang Zheng*



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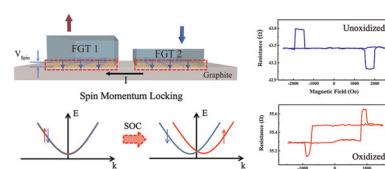
Cheng Huang, Jiajia Li, Xinyuan Zhu and Youfu Wang*



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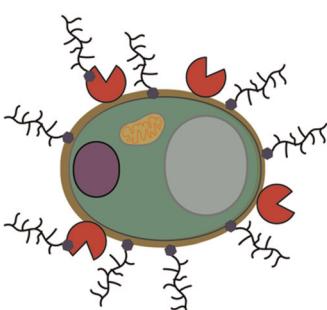
Tunable asymmetric magnetoresistance in an Fe₃GeTe₂/graphite/Fe₃GeTe₂ lateral spin valve

Xiangyu Zeng, Ge Ye, Fazhi Yang, Qikai Ye, Liang Zhang, Boyang Ma, Yulu Liu, Mengwei Xie, Yan Liu, Xiaozhi Wang,* Yue Hao and Genquan Han



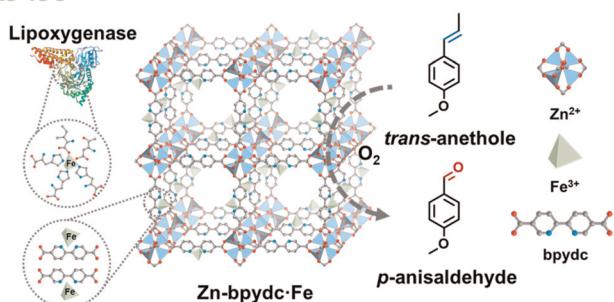
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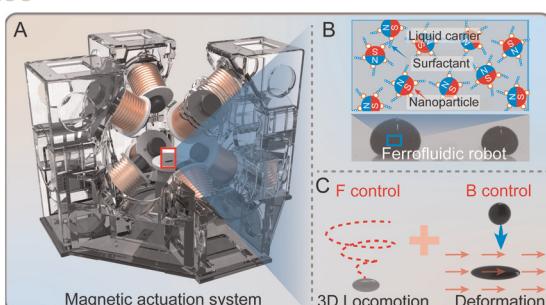
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Iron-incorporated metal–organic frameworks for oxidative cleavage of *trans*-anethole to *p*-anisaldehyde

Jun Xiong, Xin Yuan, Min-Hua Zong, Xiaoling Wu* and Wen-Yong Lou*

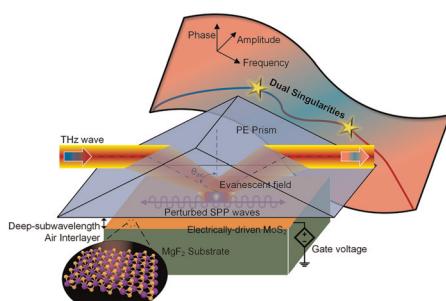
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Combined three dimensional locomotion and deformation of functional ferrofluidic robots

Xinjian Fan, Yunfei Zhang, Zhengnan Wu, Hui Xie, Lining Sun, Tao Chen* and Zhan Yang*

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An ultra-broadband frequency-agile terahertz perfect absorber with perturbed MoS₂ plasmon modes

Yujie Zhong, Yi Huang,* Shuncong Zhong,* Tingting Shi, Fuwei Sun, Tingling Lin, Qiuming Zeng, Ligang Yao and Xuefeng Chen

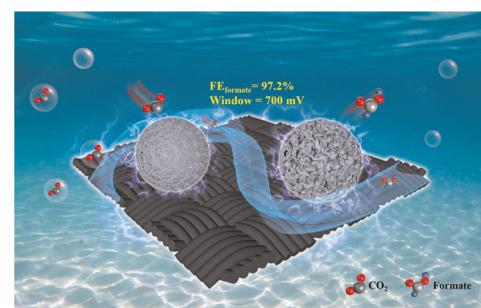


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Active-site stabilized Bi metal–organic framework-based catalyst for highly active and selective electroreduction of CO_2 to formate over a wide potential window

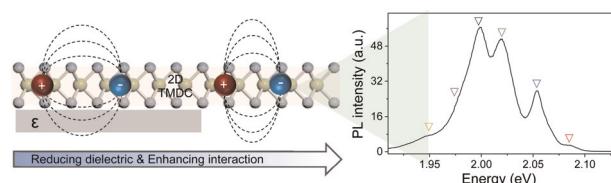
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Enhanced interactions of excitonic complexes in free-standing WS_2

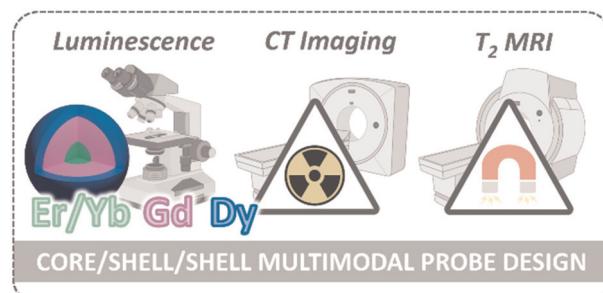
Xueqian Sun, Zhuoyuan Lu and Yuerui Lu*



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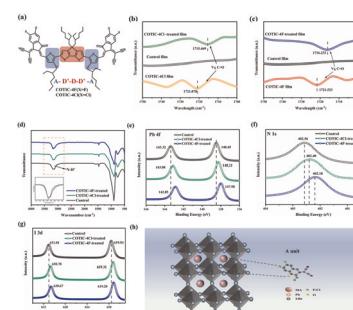
Nan Liu, Christian Homann, Samuel Morfin, Meghana S. Kesanakurti, Nicholas D. Calvert, Adam J. Shuhendler, Tom Al and Eva Hemmer*



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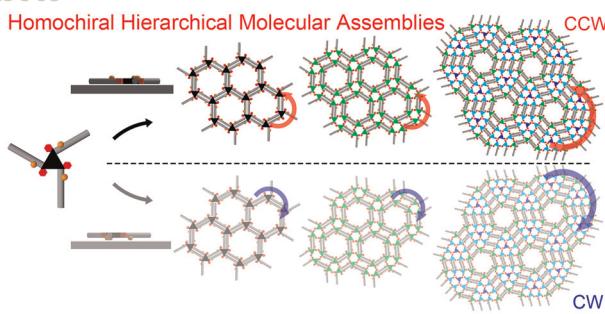
Stable and efficient perovskite solar cells *via* hydrogen bonding and coordination

Tianrui Li, Tao Zhu,* Xiyao Zhang, Haorui Tang, Kai Zhang, Xing Zhu, Shaoyuan Li, Wenhui Ma and Jie Yu*



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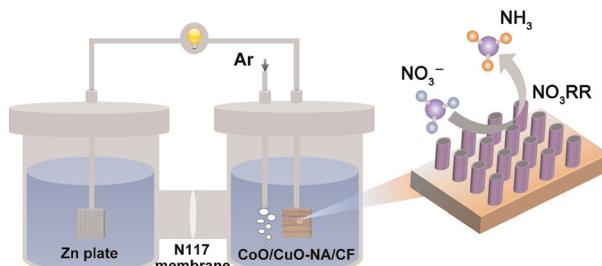
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Homochiral hierarchical molecular assemblies through dynamic combination of conformational states of a single chiral building block at the liquid/solid interface

Matsuhiro Maeda, Kazuya Sato, Steven De Feyter and Kazukuni Tahara*

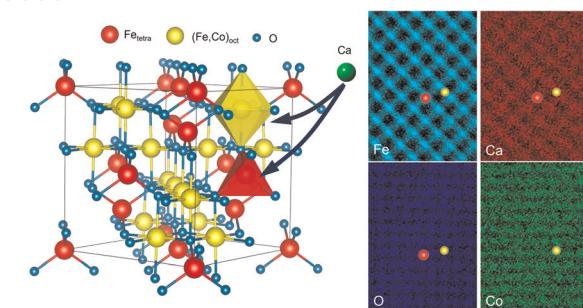
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Electrocatalytic nitrate-to-ammonia conversion on CoO/CuO nanoarrays using Zn–nitrate batteries

Shanshan Chen, Gaocan Qi,* Ruilian Yin, Qian Liu, Ligang Feng, Xincai Feng, Guangzhi Hu, Jun Luo, Xijun Liu* and Wenxian Liu*

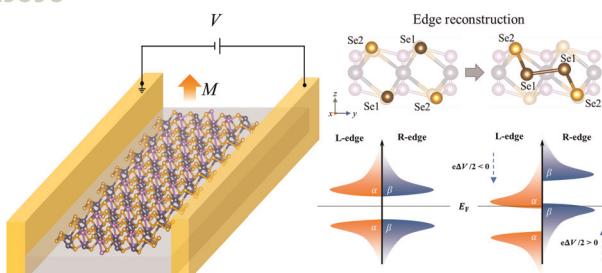
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Atomic-scale observation of calcium occupation in spinel cobalt ferrite towards the regulation of intrinsic magnetic properties

Guohua Bai, Weijia Zhong, Zhenhua Zhang,* Sateesh Bandaru, Xiuyuan Fan, Xiaolian Liu and Xuefeng Zhang*

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Electrically induced net magnetization in FePSe_3 nanoribbons: the role of edge reconstructions

Wenqi Zhang, Weifeng Xie, Bin Shao* and Xu Zuo*

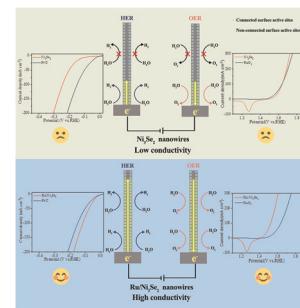


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Exceptional green hydrogen production performance of a ruthenium-modulated nickel selenide

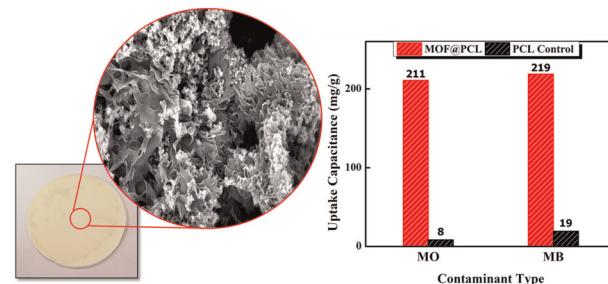
Rong Li, Lanli Chen, Huaming Zhang,* Muhammad Humayun, Junhong Duan, Xuefei Xu, Yanjun Fu, Mohamed Bououdina and Chundong Wang*



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Durable and recyclable MOF@polycaprolactone mixed-matrix membranes with hierarchical porosity for wastewater treatment

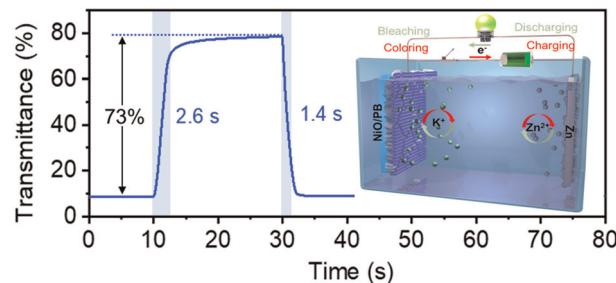
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Transparent metal oxide interlayer enabling durable and fast-switching zinc anode-based electrochromic devices

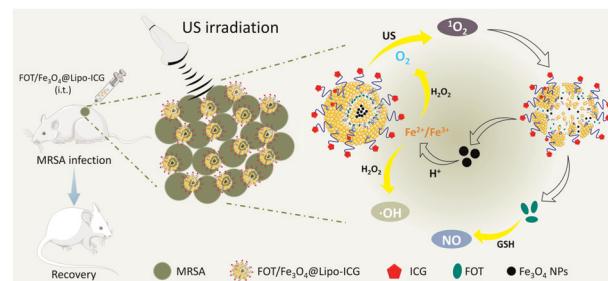
Bing Xu, Jingwei Chen,* Ping Li, Yujia Ouyang, Yu Ma, Huanlei Wang* and Haizeng Li*



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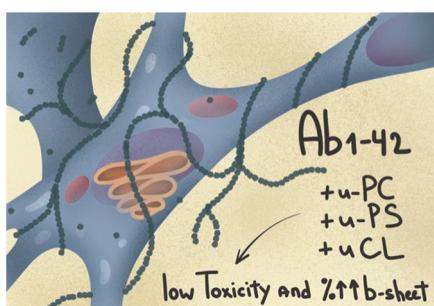
An ultrasound-controllable ROS-responsive nanoplatform for O₂ and NO generation to enhance sonodynamic therapy against multidrug-resistant bacterial infections

Jingyi Zhang, Lin Zhang, Yuhang Zhang, Rong Ju and Guoqing Wei*



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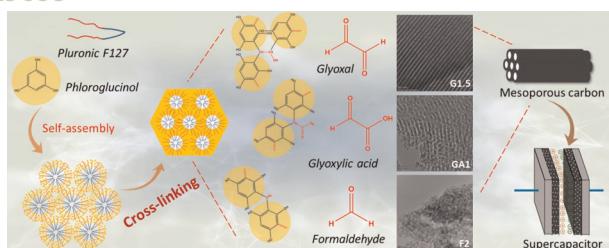
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Nano-infrared analysis of amyloid β_{1-42} fibrils formed in the presence of lipids with unsaturated fatty acids

Kiryl Zhaliazka and Dmitry Kurouski*

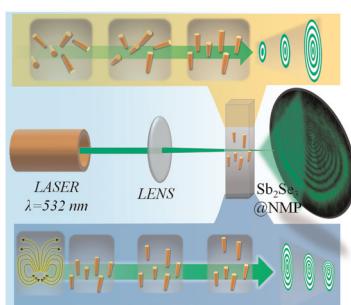
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Advancing mesoporous carbon synthesis for supercapacitors: a systematic investigation of cross-linking agent effects on pore structure and functionality

Yaoguang Song, Xiaolei Zhang,* Peter A. A. Klusener and Peter Nockemann*

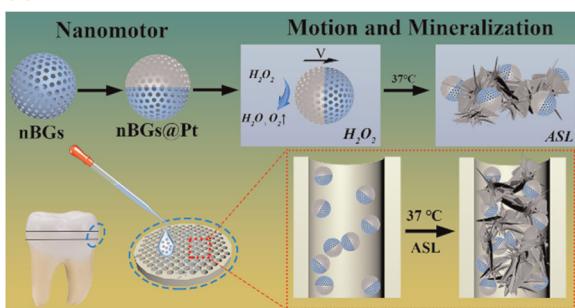
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Strong non-linear optical response of Sb_2Se_3 nanorods in a liquid suspension based on spatial self-phase modulation and their all-optical photonic device applications

Nabanita Sen, Nabamita Chakraborty, Biswajit Das and Kalyan Kumar Chattopadhyay*

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Self-propelled bioglass janus nanomotors for dentin hypersensitivity treatment

Wei Wu, Hang Chi, Qianyang Zhang, Ce Zheng, Narisu Hu,* Yingjie Wu* and Jiaxin Liu*

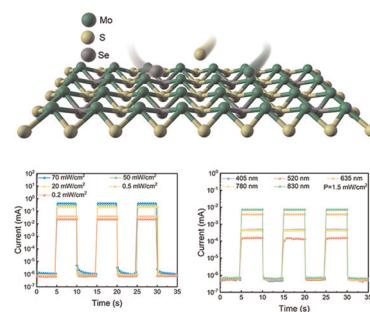


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An ultrafast and self-powered $\text{MoS}_x\text{Se}_{2-x}/\text{Si}$ photodetector with high light-trapping structures and a SiO_x interface layer

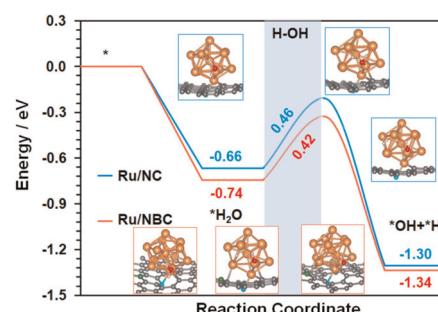
Zhen Yue, Honglie Shen,* Chen Wang, Yajun Xu, Jinjie Zheng, Yufang Li, Jingzhe Zhang, Jianian Chen, Hang Bai, Hechao Li, Jiuchuan Zeng and Long Wang



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Ru nanoclusters anchored on boron- and nitrogen-doped carbon for a highly efficient hydrogen evolution reaction in alkaline seawater

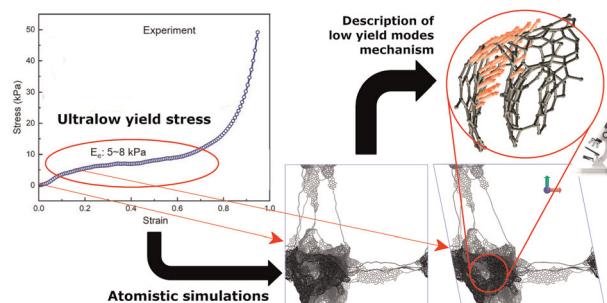
Binbin Jiang, Zhen Wang, Hui Zhao, Xie Wang, Xiaoxia Mao, Aijian Huang,* Xuehua Zhou, Kui Yin,* Kefa Sheng and Junwei Wang*



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Atomistic mechanisms underlying plastic flow at ultralow yield stress in ductile carbon aerogels

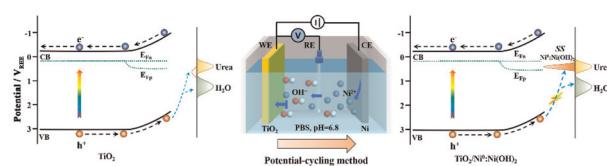
Giorgio Conter, Kailu Xiao, Xianqian Wu, William A. Goddard, III* and Alessandro Fortunelli*



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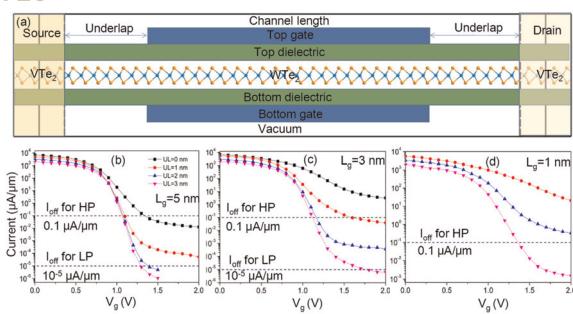
Tailoring the density of states of $\text{Ni}(\text{OH})_2$ with Ni^0 towards solar urea wastewater splitting

Li Zou, Wenyang Tao, Jing Huang, Shuxiang Wang, Yijia Zhang, Keqiang Han, Yi Hu, Haoyan Gao, Pingping Yang and Jiale Xie*



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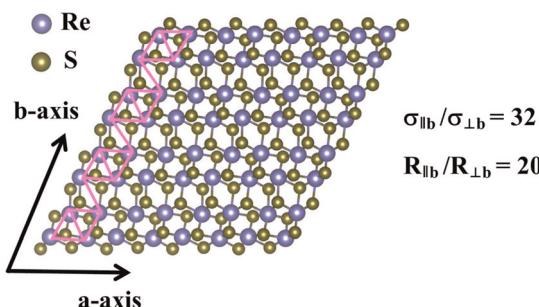
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The device performance limit of in-plane monolayer VTe₂/WTe₂ heterojunction-based field-effect transistors

Xingyi Tan, Qiang Li, Dahua Ren and Hua-Hua Fu*

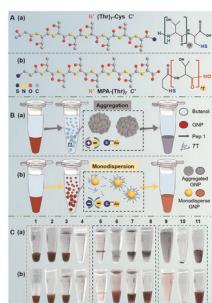
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Electrical and optoelectronic anisotropy and surface electron accumulation in ReS₂ nanostructures

Hemanth Kumar Bangolla, Muhammad Yusuf Fakhri, Ching-Hsuan Lin, Cheng-Maw Cheng, Yi-Hung Lu, Tsu-Yi Fu, Pushpa Selvarasu, Rajesh Kumar Ulaganathan, Raman Sankar and Ruei-San Chen*

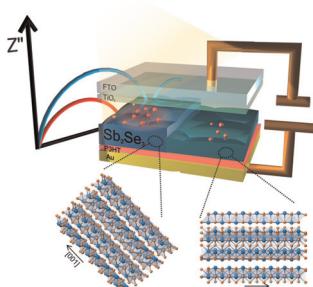
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Quantified instant conjugation of peptides on a nanogold surface for tunable ice recrystallization inhibition

Shixuan Yang, Zhongxiang Ding, Leiming Chu, Mengke Su and Honglin Liu*

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Impedance spectroscopy of Sb₂Se₃ photovoltaics consisting of (Sb₄Se₆)_n nanoribbons under light illumination

Jaemin Park, Thomas P. Shalvey, Thomas Moehl, Kyoohhee Woo, Jonathan D. Major, S. David Tilley and Wooseok Yang*

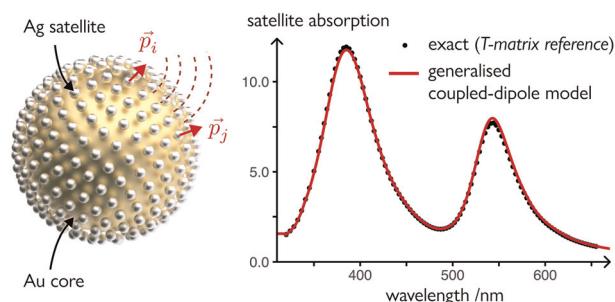


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Generalised coupled-dipole model for core-satellite nanostructures

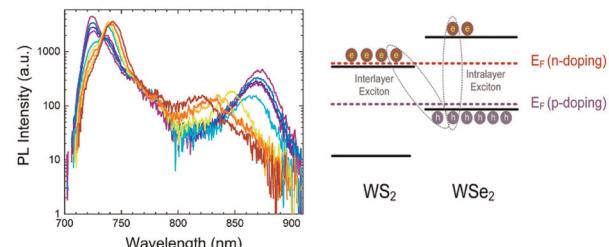
Stefania Glukhova, Eric C. Le Ru and Baptiste Auguié*



19777

Probing the interlayer excitation dynamics in WS₂/WSe₂ heterostructures with broadly tunable pump and probe energies

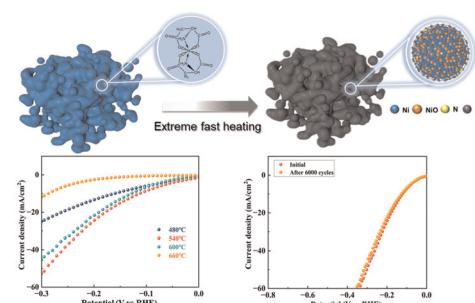
Anran Wang, Wendum Yao, Zidi Yang, Dingqi Zheng, Songlin Li, Yi Shi, Dehui Li and Fengqiu Wang*



19784

Ni/NiO@NC as a highly efficient and durable HER electrocatalyst derived from nickel(II) complexes: importance of polydentate amino-acid ligands

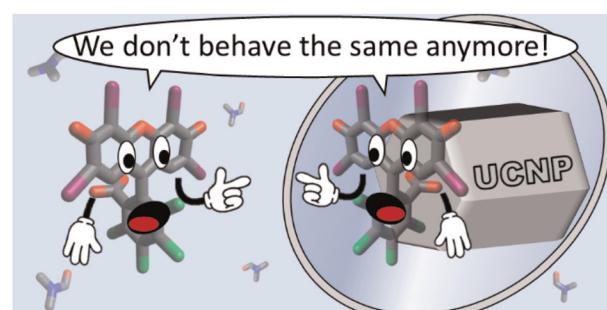
Xu Yang, Mengxue Liu, Fang Cui,* Qinghai Ma and Tieyu Cui*



19792

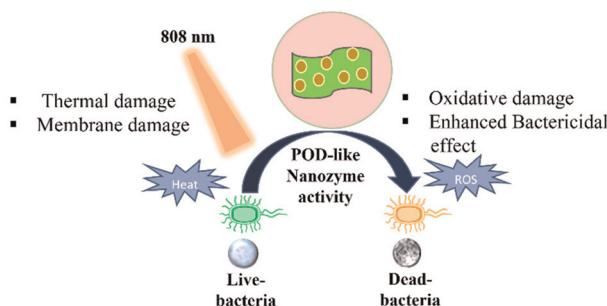
Synergistic or antagonistic effect of lanthanides on Rose Bengal photophysics in upconversion nanohybrids?

Juan Ferrera-González, María González-Béjar* and Julia Pérez-Prieto*



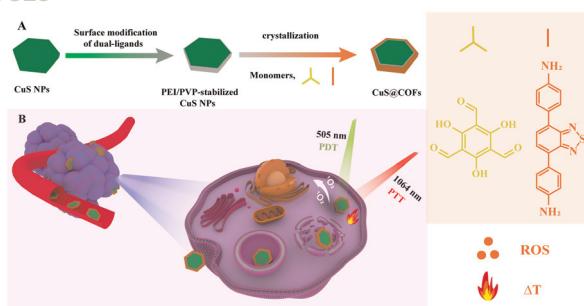
PAPERS

19801

2D-MoS₂-supported copper peroxide nanodots with enhanced nanzyme activity: application in antibacterial activity

Archana Kumari, Jagabandhu Sahoo and Mrinmoy De*

19815



Dual-wavelength responsive CuS@COF nanosheets for high-performance photothermal/photodynamic combination treatments

Qian An, Shengze Su, Wei Hu, Yanying Wang, Tao Liang,* Xianghong Li* and Chunya Li*

CORRECTIONS

19820

Correction: Pursuing colloidal diamonds

Łukasz Baran,* Dariusz Tarasewicz, Daniel M. Kamiński and Wojciech Rzysko

19821

Correction: MXenes vs. clays: emerging and traditional 2D layered nanoarchitectonics

Eduardo Ruiz-Hitzky* and Cristina Ruiz-Garcia

