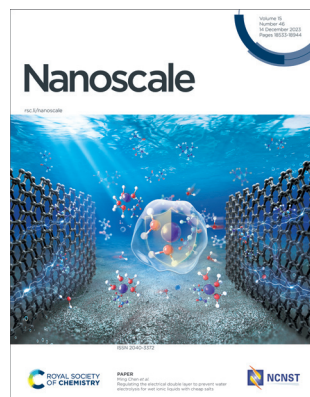


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EDITORIAL

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Editor's Choice collection: photon upconversion

Xiaogang Liu

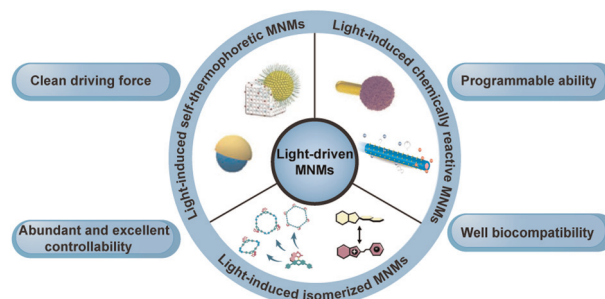


REVIEW

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Light-driven micro/nanomotors in biomedical applications

Xuejiao Zeng, Mingzhu Yang, Hua Liu,
Zhenzhong Zhang, Yurong Hu,* Jinjin Shi* and
Zhi-Hao Wang*



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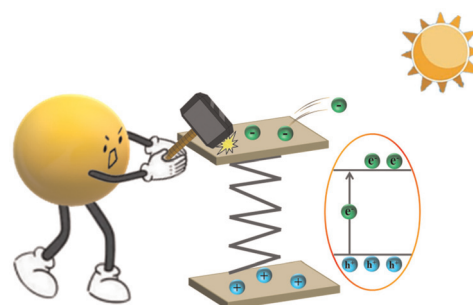


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Review of Bi-based catalysts in piezocatalytic, photocatalytic and piezo-photocatalytic degradation of organic pollutants

Ying Cheng, Yubo Zhang, Zhaobo Wang, Rui Guo,* Junhua You and Hangzhou Zhang*

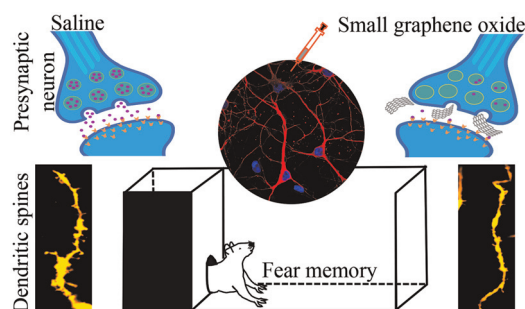


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Delivery of graphene oxide nanosheets modulates glutamate release and normalizes amygdala synaptic plasticity to improve anxiety-related behavior

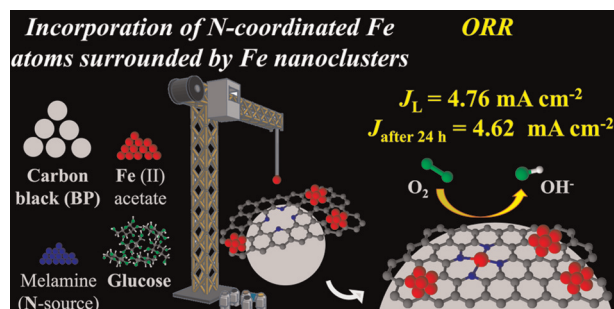
Elisa Pati, Audrey Franceschi Biagioni, Raffaele Casani, Neus Lozano, Kostas Kostarelos, Giada Cellot* and Laura Ballerini*



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Converting carbon black into an efficient and multi-site ORR electrocatalyst: the importance of bottom-up construction parameters

Rui S. Ribeiro,* Marc Florent, Juan J. Delgado, M. Fernando R. Pereira and Teresa J. Bandosz*

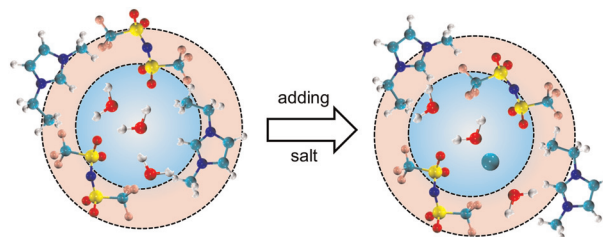


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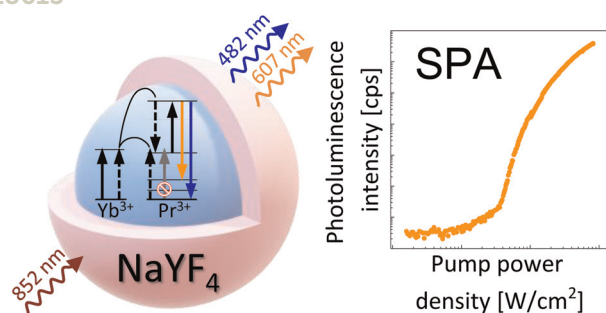
Regulating the electrical double layer to prevent water electrolysis for wet ionic liquids with cheap salts

Jiedu Wu, Jinkai Zhang, Ming Chen,* Jiawei Yan, Bingwei Mao and Guang Feng



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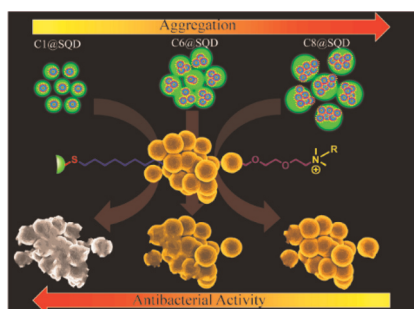
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Understanding Yb³⁺-sensitized photon avalanche in Pr³⁺ co-doped nanocrystals: modelling and optimization

Magdalena Dudek,* Zuzanna Korczak, Katarzyna Prorok, Oleksii Bezkravnyi, Lining Sun, Marcin Szalkowski and Artur Bednarkiewicz*

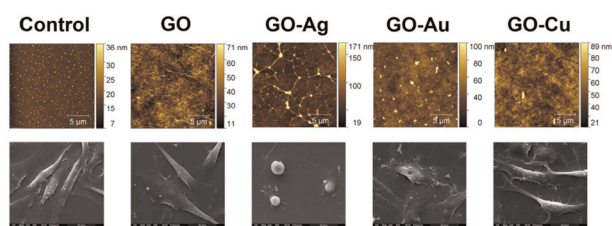
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Post-functionalization of sulfur quantum dots and their aggregation-dependent antibacterial activity

Avijit Mondal, Subrata Pandit, Jagabandhu Sahoo, Yogeswari Subramaniam and Mrinmoy De*

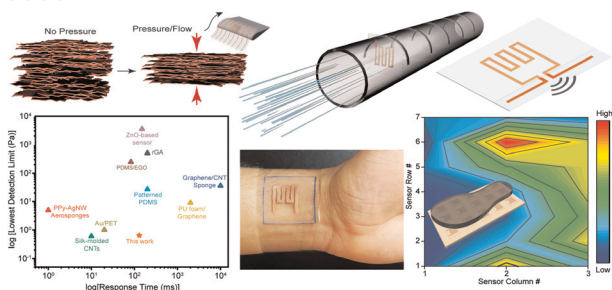
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Nanostructured graphene oxide enriched with metallic nanoparticles as a biointerface to enhance cell adhesion through mechanosensory modifications

Michał Pruchniewski, Ewa Sawosz, Malwina Sosnowska-Ławnicka, Agnieszka Ostrowska, Maciej Łojkowski, Piotr Koczoń, Paweł Nakielski, Marta Kutwin, Sławomir Jaworski and Barbara Strojny-Cieślak*

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Printing conformal and flexible copper networks for multimodal pressure and flow sensing

Saurabh Khuje, Abdullah Islam, Jian Yu* and Shenqiang Ren*

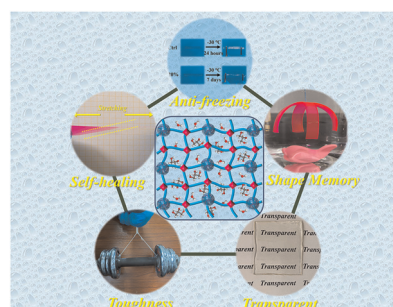


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Nanoarchitectonics composite hydrogels with high toughness, mechanical strength, and self-healing capability for electrical actuators with programmable shape memory properties

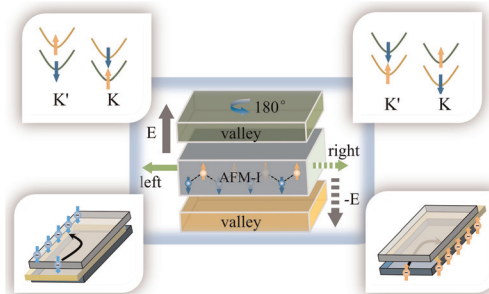
Yanqing Wang, Pengcheng Li, Shuting Cao, Yuetao Liu and Chuanhui Gao*



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Valley manipulation by sliding-induced tuning of the magnetic proximity effect in heterostructures

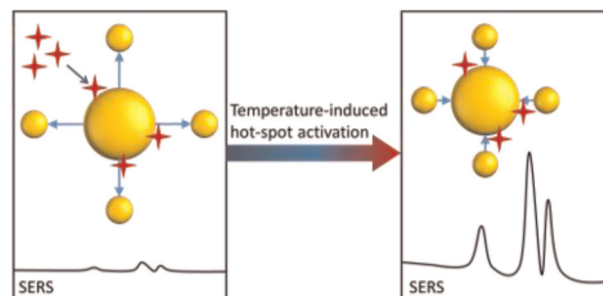
Xikui Ma, Yingcai Fan, Weifeng Li, Yangyang Li, Xiangdong Liu, Xian Zhao* and Mingwen Zhao*



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Turning on hotspots: supracolloidal SERS probes made brilliant by an external activation mechanism

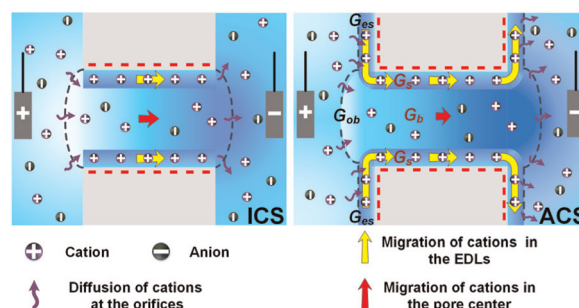
Sophie Jancke, Chen Liu, Ruosong Wang, Swagato Sarkar, Quinn A. Besford, Tobias A. F. König, Jürgen Popp, Dana Cialla-May and Christian Rossner*



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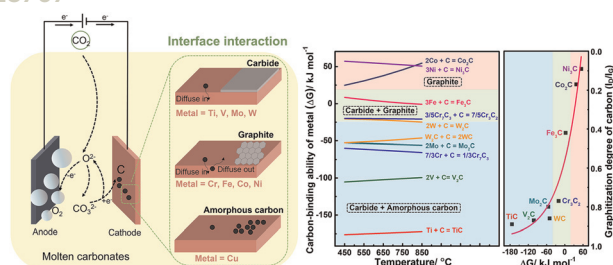
Modulation mechanism of ionic transport through short nanopores by charged exterior surfaces

Long Ma, Zhe Liu, Jia Man, Jianyong Li, Zuzanna S. Siwy and Yinghua Qiu*



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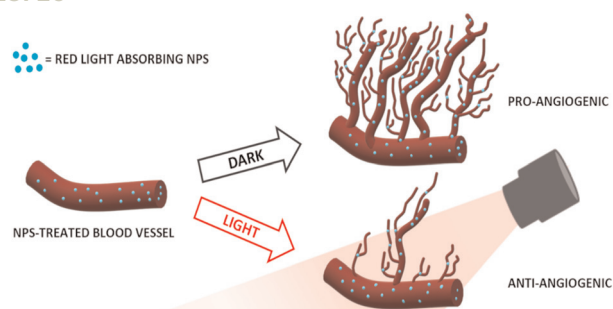
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Unraveling the role of substrate materials in governing the carbon/carbide growth of molten carbonate electrolysis of CO₂

Rui Yu, Kaifa Du,* Bowen Deng, Huayi Yin and Dihua Wang*

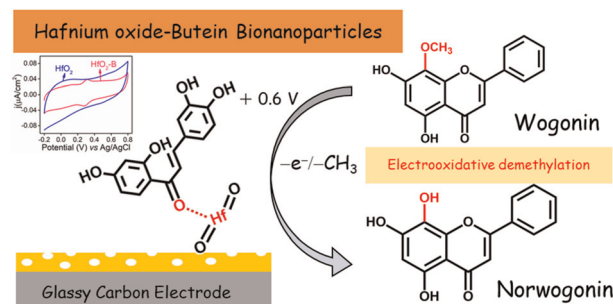
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Bimodal modulation of *in vitro* angiogenesis with photoactive polymer nanoparticles

Gabriele Tullii,* Edgar Gutierrez-Fernandez, Carlotta Ronchi, Christian Bellacanzone, Luca Bondi, Miryam Criado-Gonzalez, Paola Lagonegro, Francesco Moccia, Tobias Cramer, David Mecerreyes, Jaime Martin and Maria Rosa Antognazza*

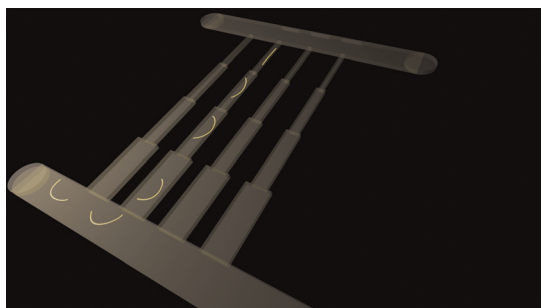
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Buteinylated-hafnium oxide bionanoparticles for electrochemical sensing of wogonin

Vinoth Krishnan, Moghitha Parandhaman, Ramya Kanagaraj and Murugan Veerapandian*

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Nima Sasanian, Rajhans Sharma, Quentin Lubart, Sriram KK, Marziyeh Ghaeidamini, Kevin D. Dorfman, Elin K. Esbjörner* and Fredrik Westerlund*

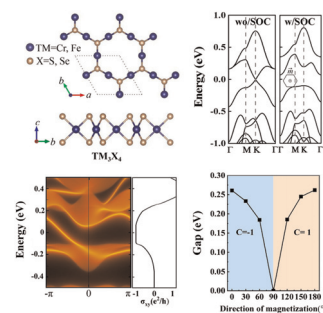


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Insight into the quantum anomalous Hall states in two-dimensional kagome Cr_3Se_4 and Fe_3S_4 monolayers

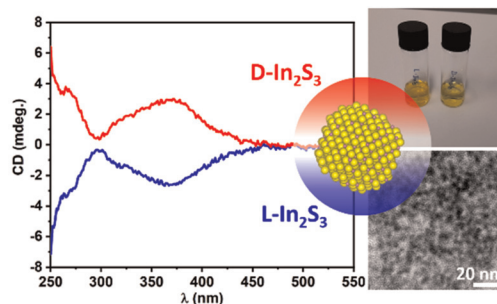
Huijie Lian, Xiaokang Xu, Ying Han, Jie Li, Wenqi Zhou, Xiaojing Yao,* Jinlian Lu* and Xiuyun Zhang*



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Ligand induced chirality in In_2S_3 nanoparticles

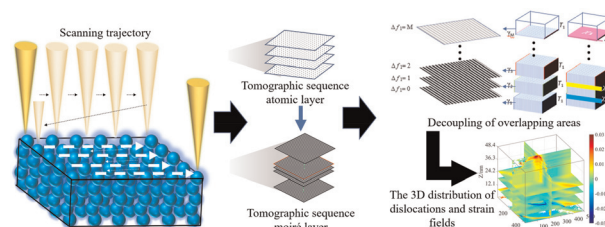
Lorenzo Branzi,* Oriane Lavet and Yurii K. Gun'ko*



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A STEM tomographic multiplication nano-moiré method

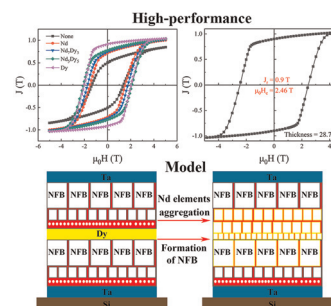
Yao Zhao, Huihui Wen, Yang Yang, Jie Dong, Wei Feng, Hongye Zhang, Zhanwei Liu* and Chao Liu*



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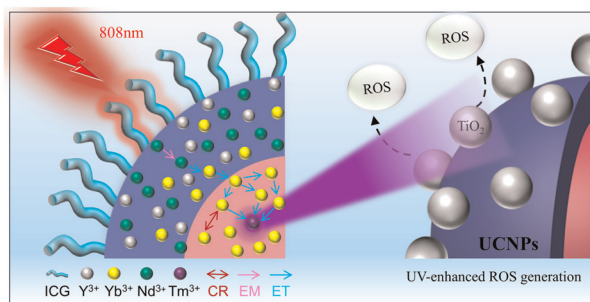
Simultaneous enhancement of coercivity and saturation magnetization in high-performance anisotropic NdFeB thick films with a Dy diffusion layer

Zhixing Ye, Xiaotian Zhao,* Long Liu, Wei Liu,* Jinghui Wang, JinXiang Wu, Yang Li, Jun Ma, Hongzhan Ju and Zhidong Zhang



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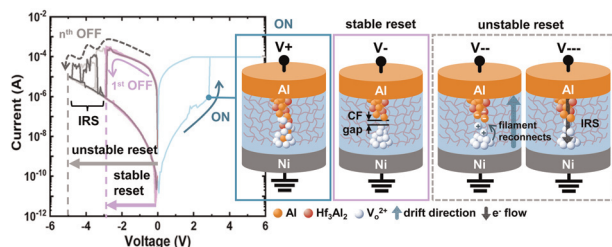
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Near-infrared light responsive intensified multiphoton ultraviolet upconversion in nanostructures towards efficient reactive oxygen species generation

Shan Yang, Songbin Liu,* Yuxuan Qiu, Yu Liao, Ze Zhang, Di Wu and Xinyu Ye*

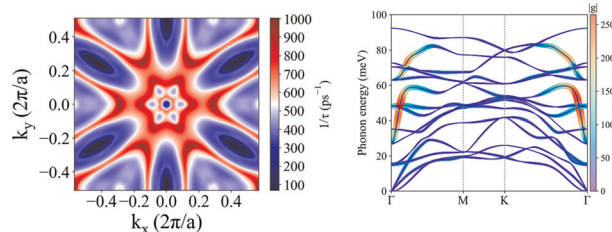
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A non-invasive approach to the resistive switching physical model of ultra-thin organic–inorganic dielectric-based ReRAMs

Alba Martinez, Byung Jin Cho* and Min Ju Kim*

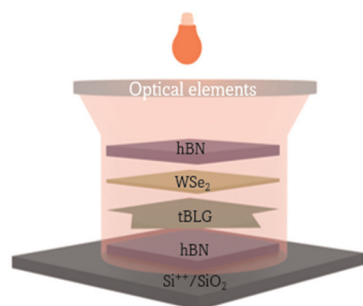
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The carrier mobility and superconducting properties of monolayer oxygen-terminated functionalized MXene Ti_2CO_2

Reza Shayanfar, Mohammad Alidoosti, Davoud Nasr Esfahani and Mahdi Pourfath*

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Band structure sensitive photoresponse in twisted bilayer graphene proximitized with WSe_2

Aparna Parappurath,* Bhaskar Ghawri, Saisab Bhowmik, Arup Singha, K. Watanabe, T. Taniguchi and Arindam Ghosh

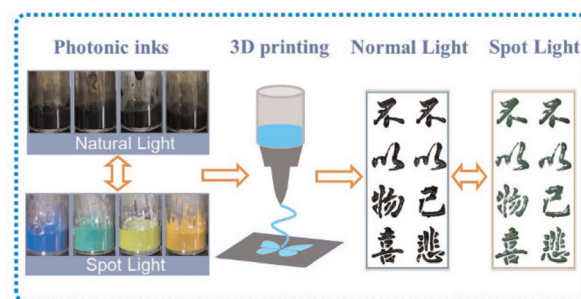


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3D printing of non-iridescent structural color inks for optical anti-counterfeiting

Qilin Guo, Xiuli Wang, Jia Guo and Changchun Wang*



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Cool carriers: triplet diffusion dominates upconversion yield

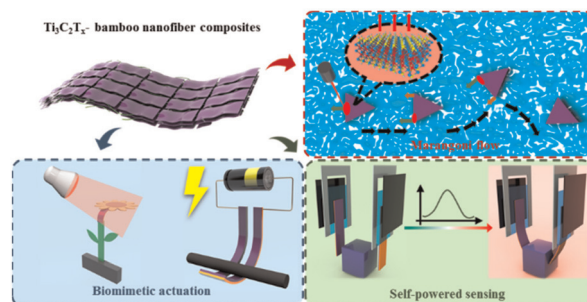
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Multifunctional actuators integrated with the function of self-powered temperature sensing made with $\text{Ti}_3\text{C}_2\text{T}_x$ -bamboo nanofiber composites

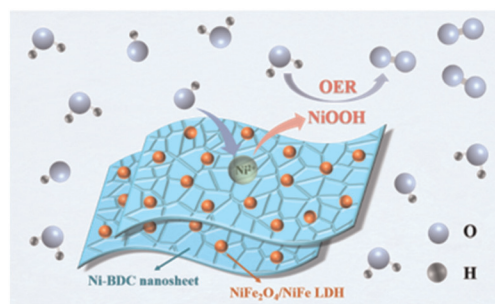
Kaihuai Yang,* Junjie Lin, Congchun Fu, Jing Guo, Jiahao Zhou, Fengliang Jiao, Qiaohang Guo, Peidi Zhou* and Mingcen Weng*



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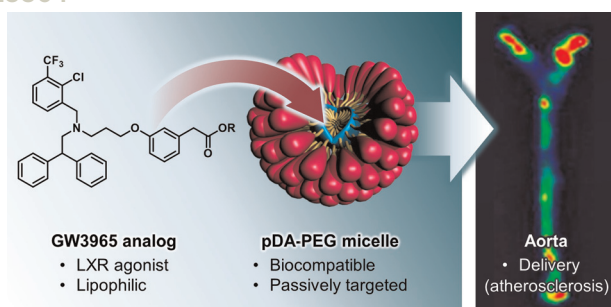
Accelerating structure reconstruction to form NiOOH in metal-organic frameworks (MOFs) for boosting the oxygen evolution reaction

Ruiyao Hou, Xiaoxia Yang, Linghui Su, Wanglai Cen, Lin Ye and Dengrong Sun*



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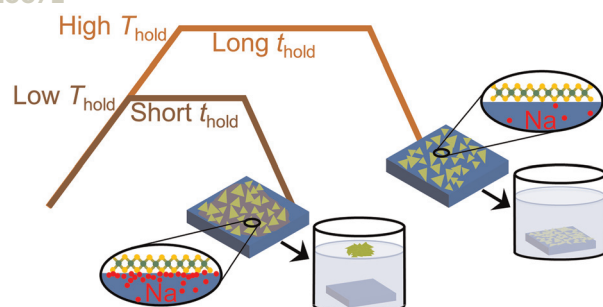
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Targeted delivery of LXR-agonists to atherosclerotic lesions mediated by polydiacetylene micelles

Lucie Jamgotchian, Laurent Devel,* Robert Thai, Lucie Poupel, Thierry Huby, Emmanuel Gautier, Wilfried Le Goff, Philippe Lesnik,* Edmond Gravel* and Eric Doris*

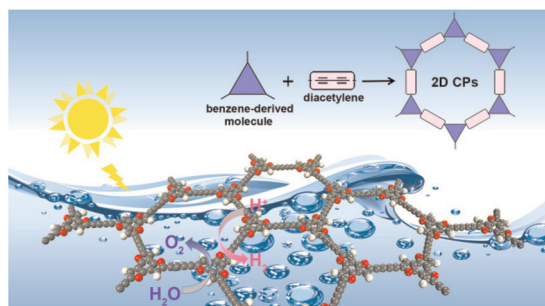
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CVD of MoS_2 single layer flakes using Na_2MoO_4 – impact of oxygen and temperature–time–profile

Romana Alice Kalt, Andrea Arcifa, Christian Wäckerlin and Andreas Stemmer*

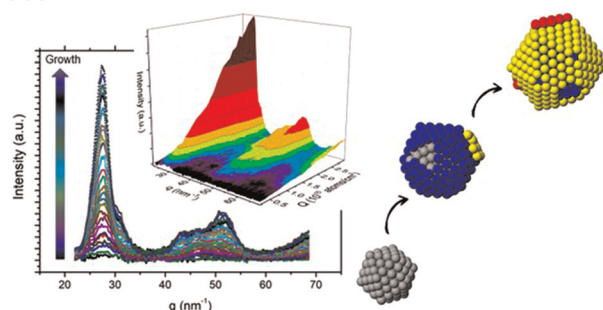
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Tunable covalent benzo-heterocyclic rings constructed using two-dimensional conjugated polymers for visible-light-driven water splitting

Cong Wang, Ying-Nan Zhao, Zhong-Ling Lang,* Yang-Guang Li, Zhong-Min Su and Hua-Qiao Tan*

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Sudden collective atomic rearrangements trigger the growth of defect-free silver icosahedra

Diana Nelli, Cesare Roncaglia, Riccardo Ferrando,* Zeinab Kataya, Yves Garreau, Alessandro Coati, Caroline Andreazza-Vignolle and Pascal Andreazza*

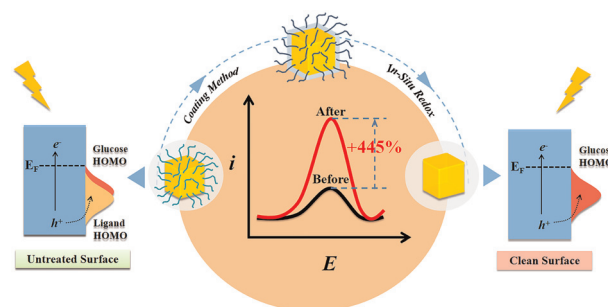


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Boosting plasmon-enhanced electrochemistry by *in situ* surface cleaning of plasmonic nanocatalysts

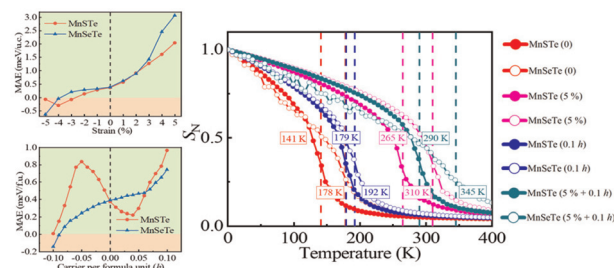
Yu Wang, Xueqing Sang, Fengxia Wu, Yuanhao Pang, Guobao Xu, Yali Yuan,* Hsien-Yi Hsu and Wenxin Niu*



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High spin polarization, large perpendicular magnetic anisotropy and room-temperature ferromagnetism by biaxial strain and carrier doping in Janus MnSeTe and MnSTe

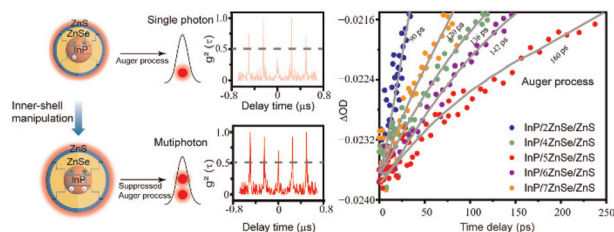
Long Zhang, Yan Zhao, Yuqi Liu and Guoying Gao*



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Suppressed Auger recombination and enhanced emission of InP/ZnSe/ZnS quantum dots through inner shell manipulation

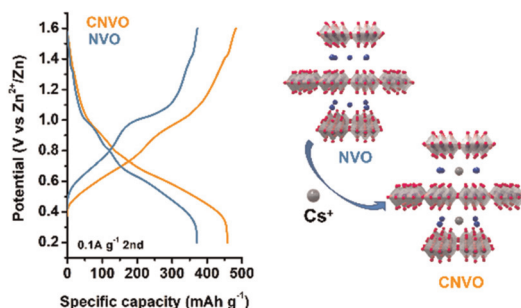
Yaru Chen, Rixin Wang, Yanmin Kuang,* Yangyang Bian, Fei Chen, Huaibin Shen, Zhen Chi, Xia Ran and Lijun Guo*



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Cesium-doped ammonium vanadium bronze nanosheets as high capacity aqueous zinc-ion battery cathodes with long cycle life and superb rate capability

Xinyu Lei, Hao Du, Haiyang Li, Meng Zhang,* Hanlu Zhang, Yiliang Jin and Jiarui Zhang



EXPRESSION OF CONCERN

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Expression of concern: Versatile plasmonic-effects at the interface of inverted perovskite solar cells

Ahmed Esmail Shalan, Tomoya Oshikiri, Hiroki Sawayanagi, Keisuke Nakamura, Kosei Ueno, Quan Sun, Hui-Ping Wu, Eric Wei-Guang Diao* and Hiroaki Misawa*

CORRECTIONS

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Correction: Integrated 4-terminal single-contact nanoelectromechanical relays implemented in a silicon-on-insulator foundry process

Yingying Li, Elliott Worsey, Simon J. Bleiker, Pierre Edinger, Mukesh Kumar Kulsreshath, Qi Tang, Alain Yuji Takabayashi, Niels Quack, Peter Verheyen, Wim Bogaerts, Kristinn B. Gylfason, Dinesh Pamunuwa* and Frank Niklaus*

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Correction: Ferromagnetic and half-metallic phase transition by doping in a one-dimensional narrow-bandgap $W_6\text{P}_{17}\text{Cl}_{17}$ semiconductor

Yusen Qiao and Huabing Yin*

