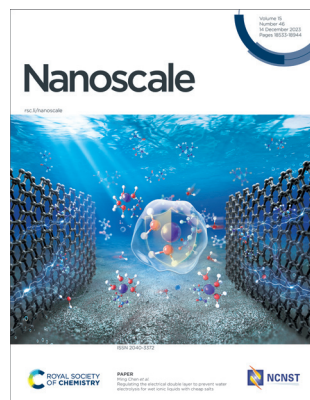


IN THIS ISSUE

ISSN 2040-3372 CODEN NANOHL 15(46) 18533–18944 (2023)



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See Ming Chen *et al.*,
pp. 18603–18612.

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EDITORIAL

18547

Editor's Choice collection: photon upconversion

Xiaogang Liu

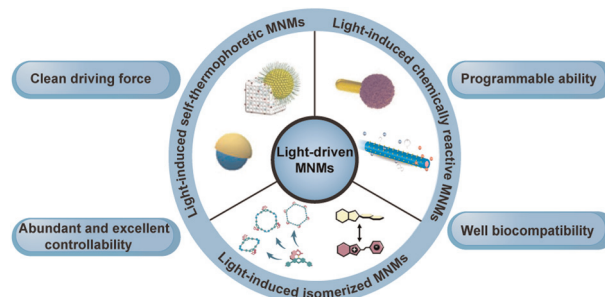


REVIEW

18550

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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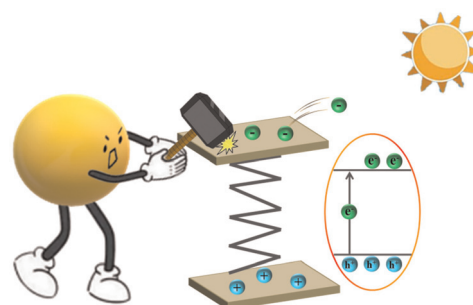


MINIREVIEW

18571

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*

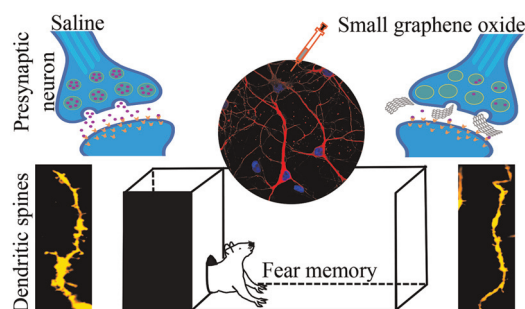


COMMUNICATIONS

18581

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

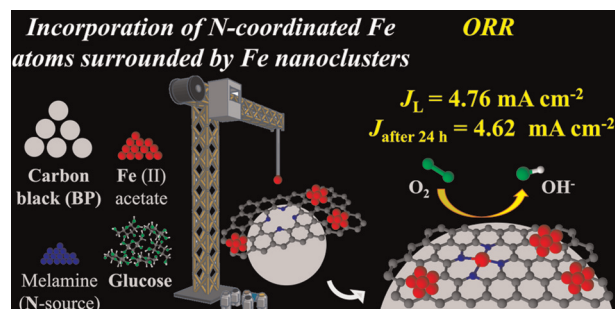
Elisa Pati, Audrey Franceschi Biagioni, Raffaele Casani, Neus Lozano, Kostas Kostarelos, Giada Cellot* and Laura Ballerini*



18592

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*

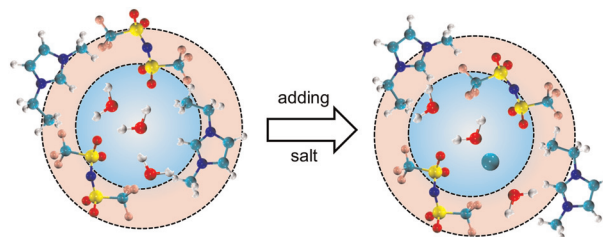


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18603

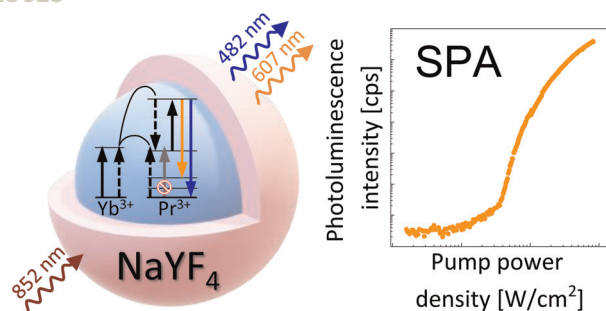
Regulating the electrical double layer to prevent water electrolysis for wet ionic liquids with cheap salts

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



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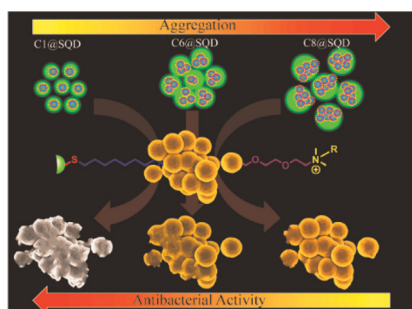
18613



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*

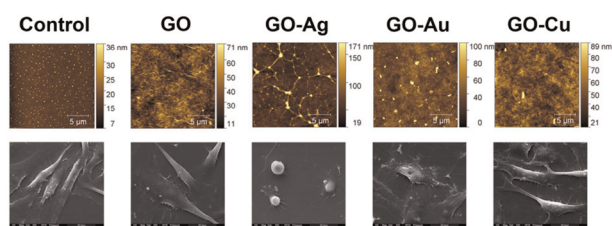
18624



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

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

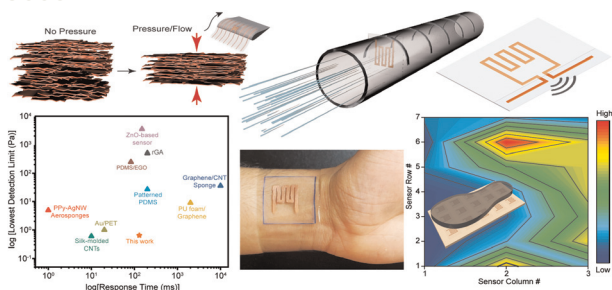
18639



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*

18660



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

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

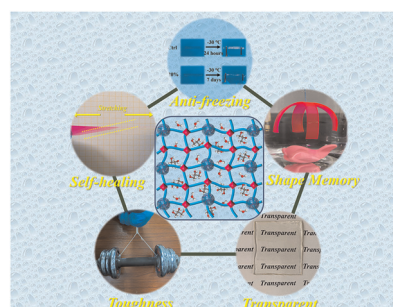


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18667

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

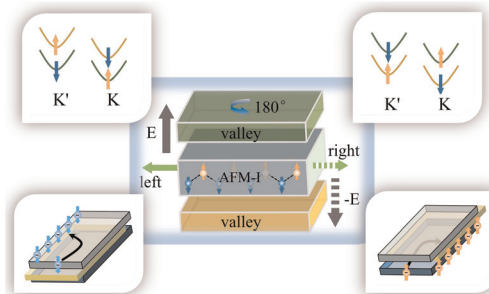
Yanqing Wang, Pengcheng Li, Shuting Cao, Yuetao Liu and Chuanhui Gao*



18678

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

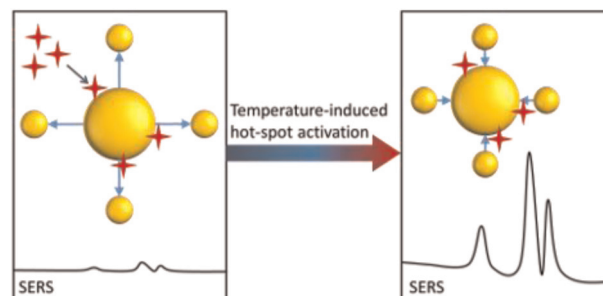
Xikui Ma, Yingcai Fan, Weifeng Li, Yangyang Li, Xiangdong Liu, Xian Zhao* and Mingwen Zhao*



18687

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

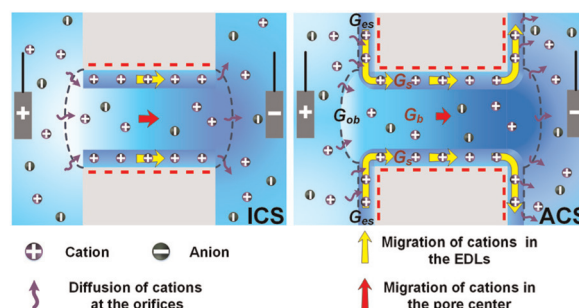
Sophie Jancke, Chen Liu, Ruosong Wang, Swagato Sarkar, Quinn A. Besford, Tobias A. F. König, Jürgen Popp, Dana Cialla-May and Christian Rossner*



18696

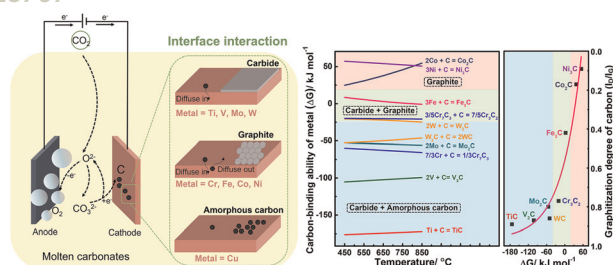
Modulation mechanism of ionic transport through short nanopores by charged exterior surfaces

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



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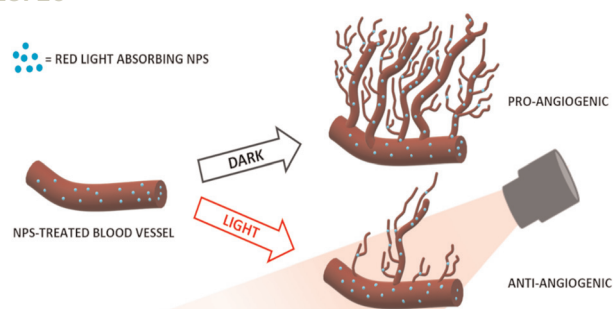
18707



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*

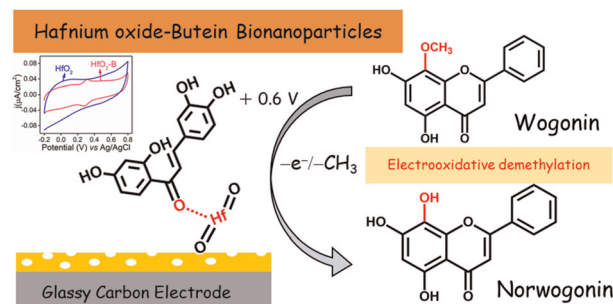
18716



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*

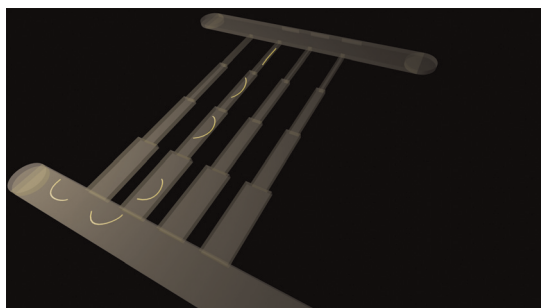
18727



Buteinylated-hafnium oxide bionanoparticles for electrochemical sensing of wogonin

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

18737



Probing physical properties of single amyloid fibrils using nanofluidic channels

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

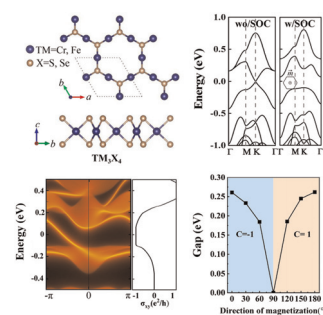


PAPERS

18745

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

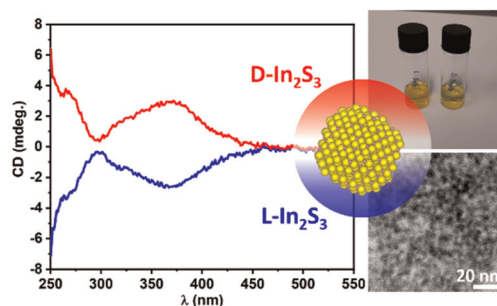
Huijie Lian, Xiaokang Xu, Ying Han, Jie Li, Wenqi Zhou, Xiaojing Yao,* Jinlian Lu* and Xiuyun Zhang*



18753

Ligand induced chirality in In_2S_3 nanoparticles

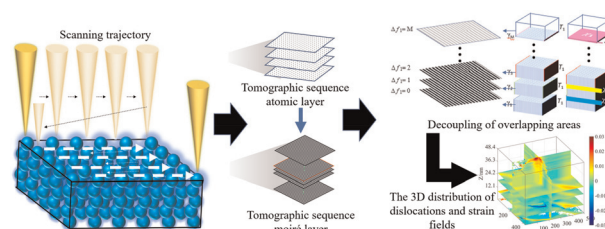
Lorenzo Branzi,* Oriane Lavet and Yurii K. Gun'ko*



18762

A STEM tomographic multiplication nano-moiré method

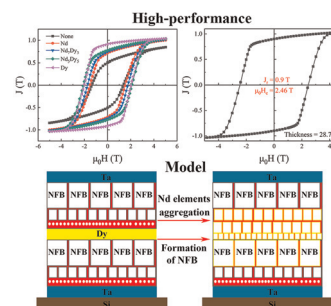
Yao Zhao, Huihui Wen, Yang Yang, Jie Dong, Wei Feng, Hongye Zhang, Zhanwei Liu* and Chao Liu*



18775

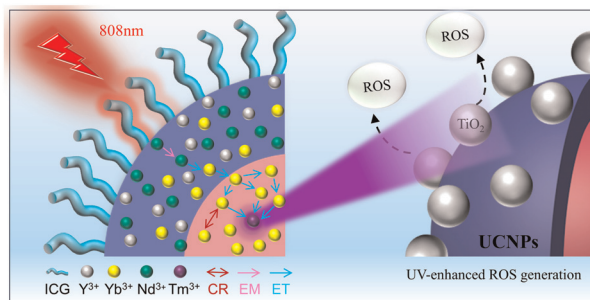
Simultaneous enhancement of coercivity and saturation magnetization in high-performance anisotropic NdFeB thick films with a Dy diffusion layer

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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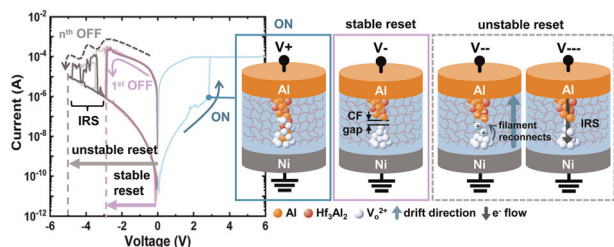
18785



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*

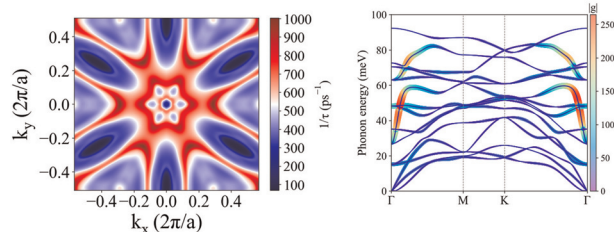
18794



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*

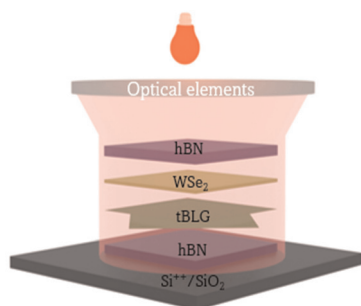
18806



The carrier mobility and superconducting properties of monolayer oxygen-terminated functionalized MXene Ti₂CO₂

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

18818



Band structure sensitive photoresponse in twisted bilayer graphene proximitized with WSe₂

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

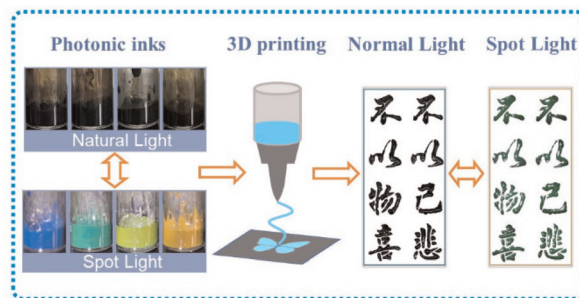


PAPERS

18825

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

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



18832

Cool carriers: triplet diffusion dominates upconversion yield

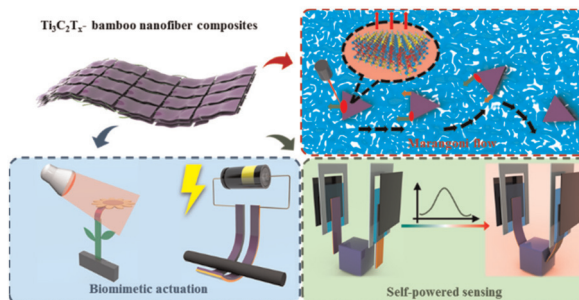
Colette M. Sullivan, Jason E. Kuszynski, Alexey Kovalev, Theo Siegrist, Richard D. Schaller, Geoffrey F. Strouse and Lea Nienhaus*



18842

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

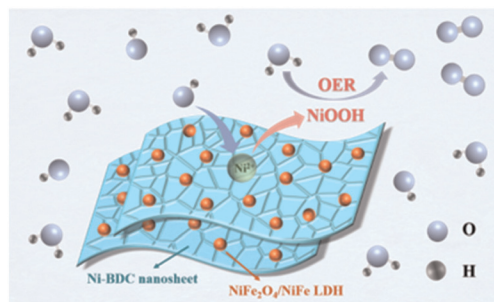
Kaihuai Yang,* Junjie Lin, Congchun Fu, Jing Guo, Jiahao Zhou, Fengliang Jiao, Qiaohang Guo, Peidi Zhou* and Mingcen Weng*



18858

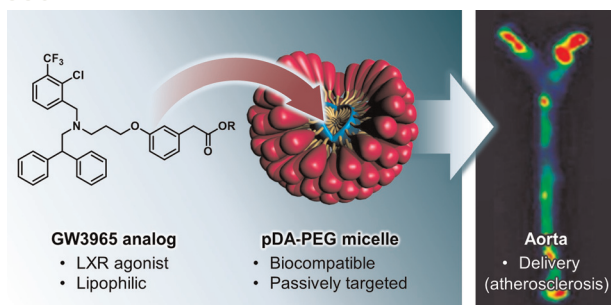
Accelerating structure reconstruction to form NiOOH in metal-organic frameworks (MOFs) for boosting the oxygen evolution reaction

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



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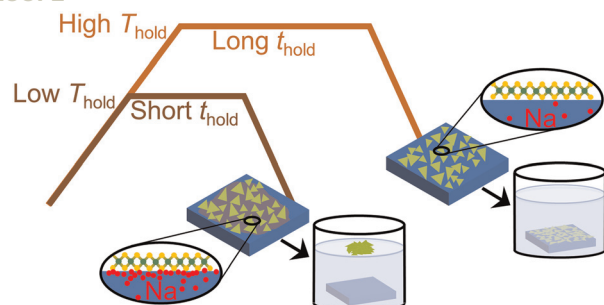
18864



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*

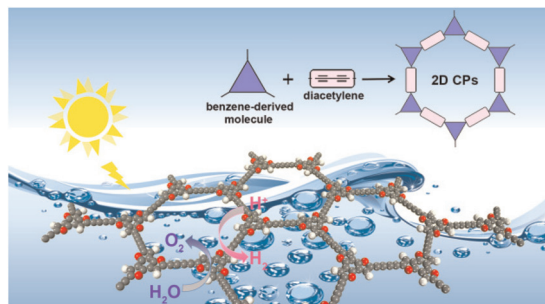
18871



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*

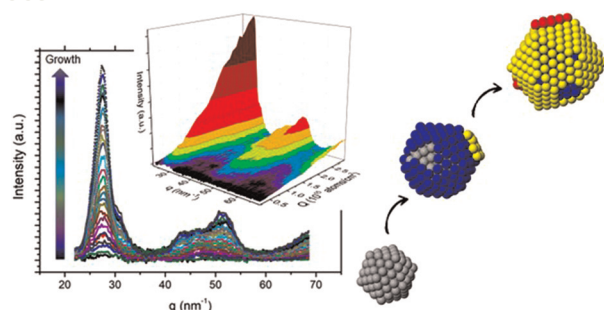
18883



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*

18891



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*

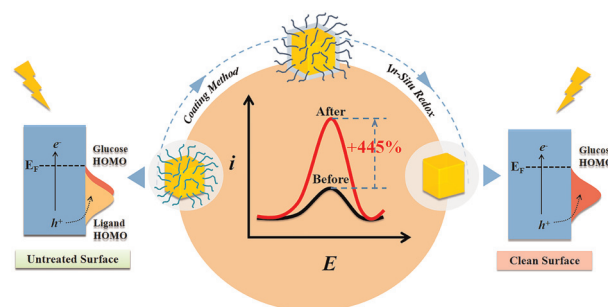


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18901

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

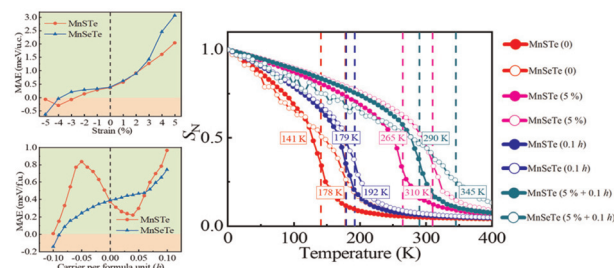
Yu Wang, Xueqing Sang, Fengxia Wu, Yuanhao Pang, Guobao Xu, Yali Yuan,* Hsien-Yi Hsu and Wenxin Niu*



18910

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

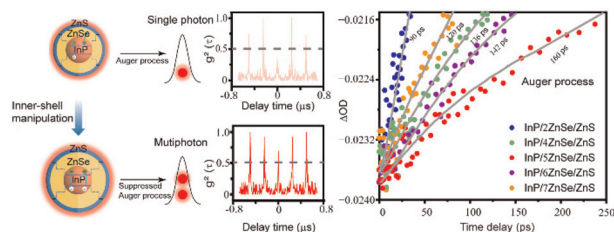
Long Zhang, Yan Zhao, Yuqi Liu and Guoying Gao*



18920

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

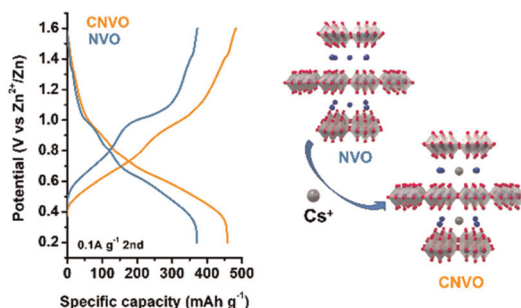
Yaru Chen, Rixin Wang, Yanmin Kuang,* Yangyang Bian, Fei Chen, Huaibin Shen, Zhen Chi, Xia Ran and Lijun Guo*



18928

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

18939

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

18940

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*

18941

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*

