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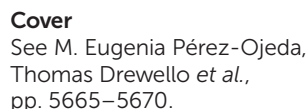


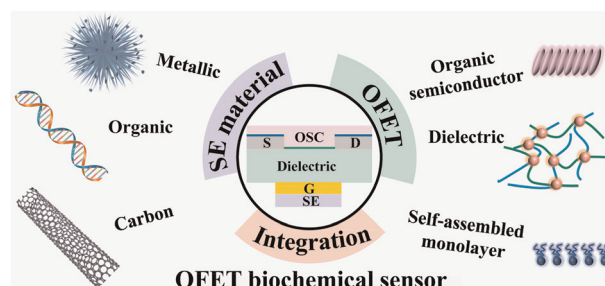
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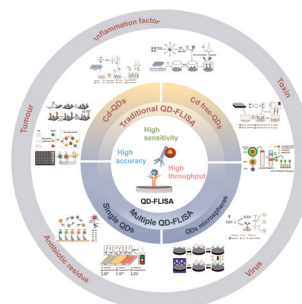
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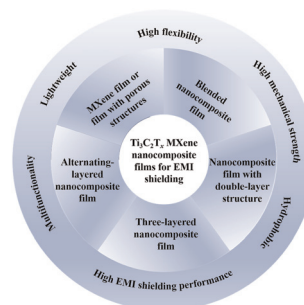


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Progress of high performance $\text{Ti}_3\text{C}_2\text{T}_x$ MXene nanocomposite films for electromagnetic interference shielding

Guirong Hu, Zhuoqi Cen, Yuzhu Xiong* and Kun Liang*

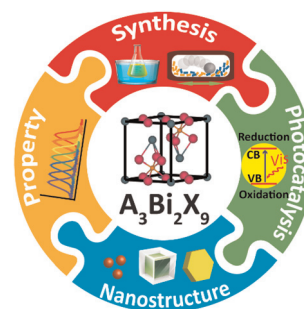


MINIREVIEWS

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Recent developments in lead-free bismuth-based halide perovskite nanomaterials for heterogeneous photocatalysis under visible light

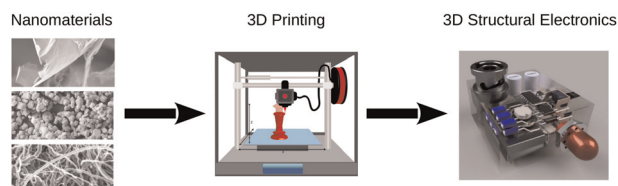
Zehong Wu, Harun Tüysüz, Flemming Besenbacher, Yitao Dai* and Yujie Xiong*



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3D printed electronics with nanomaterials

Marcin Słoma

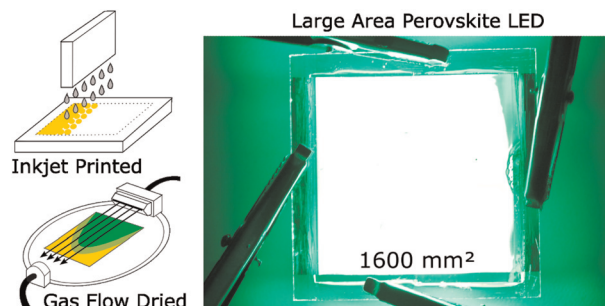


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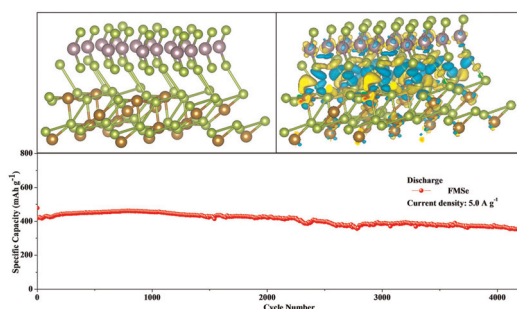
Large area inkjet-printed metal halide perovskite LEDs enabled by gas flow assisted drying and crystallization

Vincent R. F. Schröder, Nicolas Fratzscher, Florian Mathies, Edgar R. Nandayapa, Felix Hermerschmidt,* Eva L. Unger and Emil J. W. List-Kratochvil*



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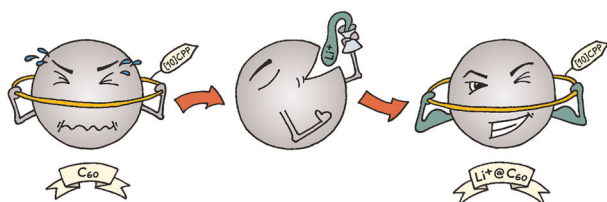


Self-assembled nanoflower-like FeSe₂/MoSe₂ heterojunction anode with enhanced kinetics for superior-performance Na-ion half/full batteries

Shengkai Li, Haiyan Zhang,* Yuliang Cao, Shangshang Zhang, Zhenjiang Liu, Changsheng Yang, Yan Wang and Baoshan Wan

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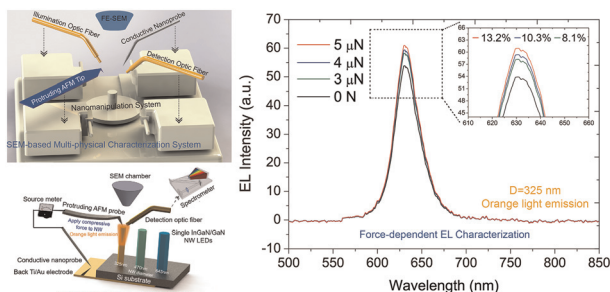
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A molecular Popeye: Li⁺@C₆₀ and its complexes with [n]cycloparaphenylenes

Markus Freiberger, Iris Solymosi, Eva Marie Freiberger, Andreas Hirsch, M. Eugenia Pérez-Ojeda* and Thomas Drewello*

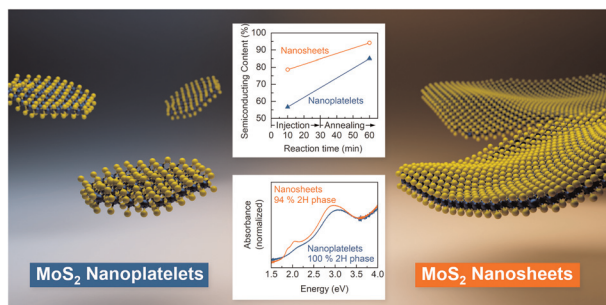
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Optically and electrically invariant multi-color single InGaN/GaN nanowire light-emitting diodes on a silicon substrate under mechanical compression

Juntian Qu, Renjie Wang, Peng Pan, Linghao Du, Yu Sun and Xinyu Liu*

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Untangling the intertwined: metallic to semiconducting phase transition of colloidal MoS₂ nanoplatelets and nanosheets

André Niebur, Aljoscha Söll, Philipp Haizmann, Onno Strolka, Dominik Rudolph, Kevin Tran, Franz Renz, André Philipp Frauendorf, Jens Hübner, Heiko Peisert, Marcus Scheele and Jannika Lauth*

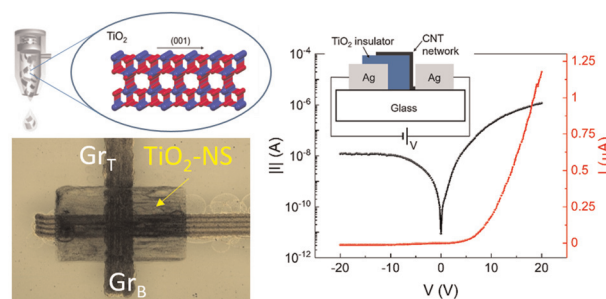


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Water-based 2-dimensional anatase TiO₂ inks for printed diodes and transistors

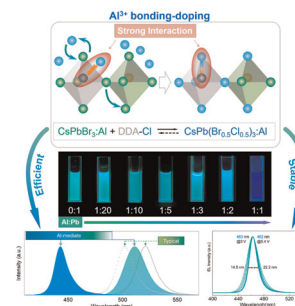
Omar Kassem, Lorenzo Pimpolari, Chaochao Dun, Dmitry K. Polyushkin, Marco Zarattini, Elisabetta Dimaggio, Liming Chen, Giovanni Basso, Federico Parenti, Jeffrey J. Urban, Thomas Mueller, Gianluca Fiori and Cinzia Casiraghi*



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Improving anion-exchange efficiency and spectrum stability of perovskite quantum dots via an Al³⁺ bonding-doping synergistic effect

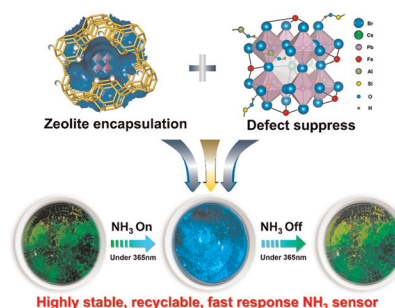
Linxiang Yang, Qingsong Shan,* Shuai Zhang, Yihui Zhou, Yan Li, Yousheng Zou and Haibo Zeng*



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CsPbBr₃ perovskite quantum dots grown within Fe-doped zeolite X with improved stability for sensitive NH₃ detection

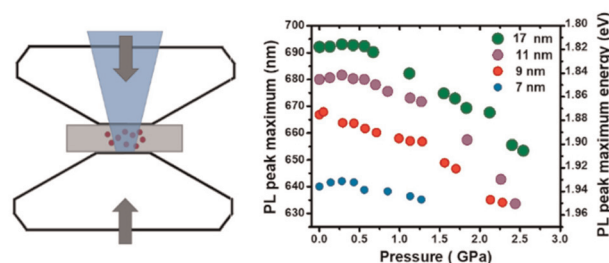
Wan Wu, Chunyu Zhao, Mingyou Hu, Aizhao Pan,* Wei Xiong and Yinghao Chen



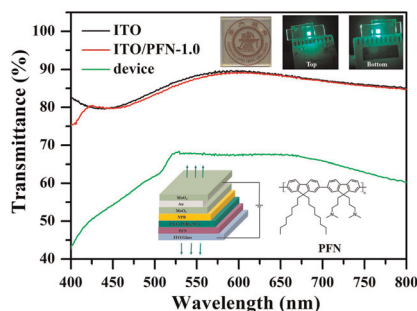
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Structural effects on the luminescence properties of CsPbI₃ nanocrystals

Olivera Vukovic, Giulia Folpini, E Laine Wong, Luca Leoncino, Giancarlo Terraneo, Munirah D. Albaqami, Annamaria Petrozza* and Daniele Cortecchia*



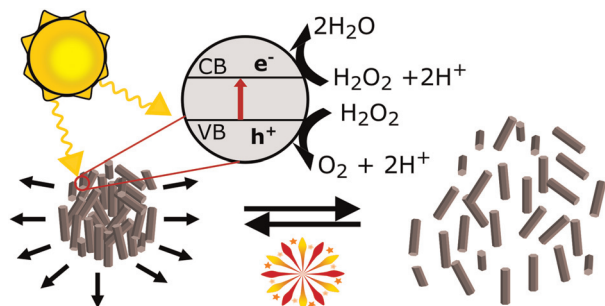
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Inverted semitransparent perovskite nanocrystal light-emitting diodes with a conjugated polymer as an electron transport layer

Qun Wan, Qinggang Zhang, Jinlong Guo, Mingming Liu, Wenji Zhan, Xinrong Liao, Changwei Yuan, Mengda He, Weilin Zheng, Congyang Zhang, Long Kong and Liang Li*

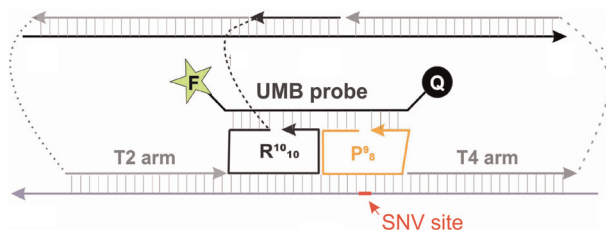
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Light-powered swarming phoretic antimony chalcogenide-based microrobots with "on-the-fly" photodegradation abilities

Anna Jancik-Prochazkova and Martin Pumera*

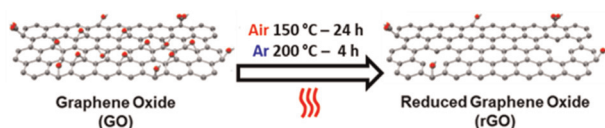
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OWL2: a molecular beacon-based nanostructure for highly selective detection of single-nucleotide variations in folded nucleic acids

Brittany L. Mueller,* Mark J. Liberman and Dmitry M. Kolpashchikov*

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Tuning the electrical properties of graphene oxide through low-temperature thermal annealing

Cataldo Valentini, Verónica Montes-García, Pietro Antonio Livio, Tomasz Chudziak, Jesús Raya, Artur Ciesielski* and Paolo Samori*

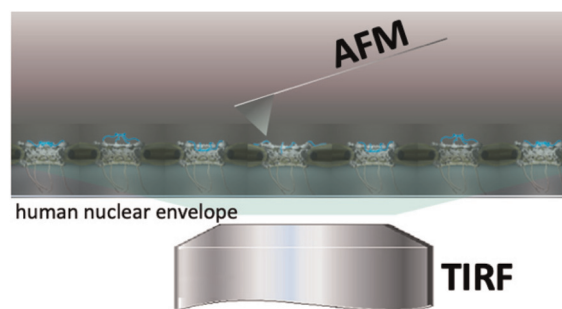


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Structure and mechanics of the human nuclear pore complex basket using correlative AFM-fluorescence superresolution microscopy

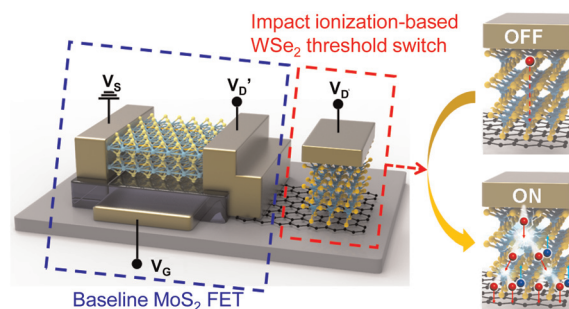
Anthony Vial, Luca Costa, Patrice Dosset, Pietro Rosso, Gaëlle Boutières, Orestis Faklaris, Heiko Haschke, Pierre-Emmanuel Milhiet* and Christine M. Doucet*



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A steep-switching impact ionization-based threshold switching field-effect transistor

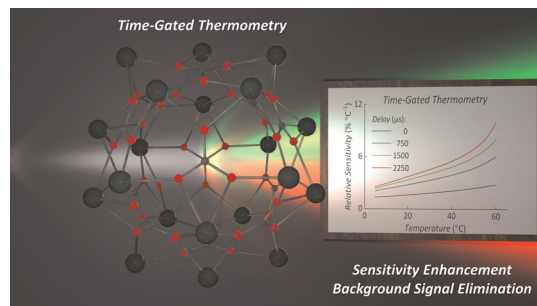
Chanwoo Kang, Haeju Choi, Hyeonje Son, Taeho Kang, Sang-Min Lee and Sungjoo Lee*



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Boosting the sensitivity with time-gated luminescence thermometry using a nanosized molecular cluster aggregate

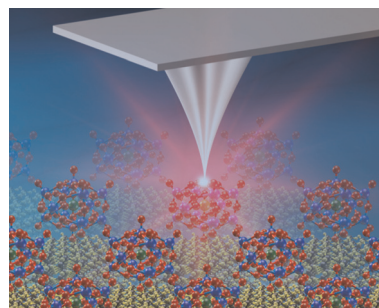
Diogo Alves Gálico and Muralee Murugesu*



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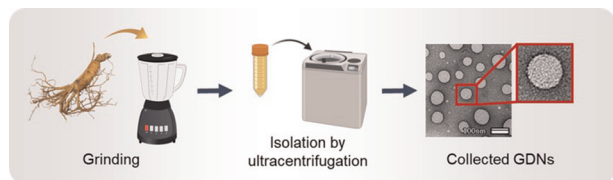
Influence of surface and intermolecular interactions on the properties of supported polyoxometalates

Olivia M. Primera-Pedrozo, Shuai Tan, Difan Zhang, Brian T. O'Callahan, Wenjin Cao, Eric T. Baxter, Xue-Bin Wang, Patrick Z. El-Khoury, Venkateshkumar Prabhakaran, Vassiliki-Alexandra Glezakou and Grant E. Johnson*



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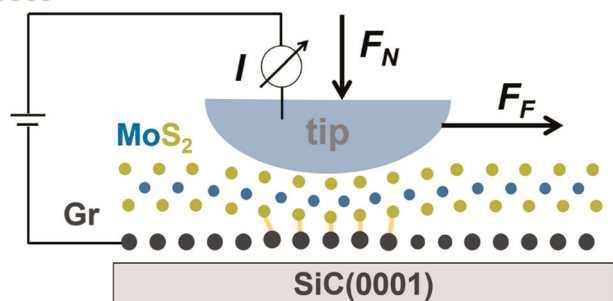
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Ginseng-derived exosome-like nanovesicles extracted by sucrose gradient ultracentrifugation to inhibit osteoclast differentiation

Kwansung Seo, Ji Hye Yoo, Jisu Kim, Sung Jun Min, Dong Nyoung Heo, Il Keun Kwon* and Ho-Jin Moon*

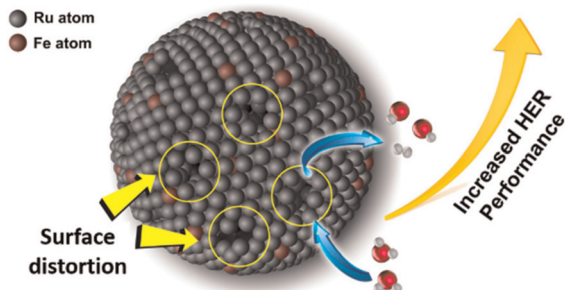
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Nanoscale friction on MoS₂/graphene heterostructures

Zhao Liu, Bartosz Szczefanowicz, J. Marcelo J. Lopes, Ziyang Gan, Antony George, Andrey Turchanin and Roland Bennewitz*

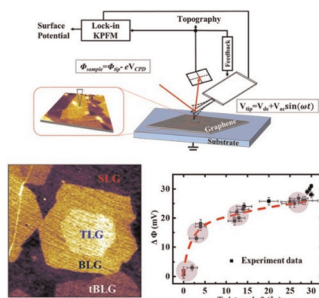
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Surface distortion of FeRu nanoparticles improves the hydrogen evolution reaction performance in alkaline media

Hee Jin Kim, Eunseo Hong, Yonghoon Hong, Jeonghyeon Kim, Mrinal Kanti Kabiraz, Young-Min Kim, Hangil Lee,* Won Seok Seo* and Sang-Il Choi*

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Twist angle-dependent work functions in CVD-grown twisted bilayer graphene probed by Kelvin probe force microscopy

Shangzhi Gu, Wenyu Liu, Shuo Mi, Guoyu Xian, Jiangfeng Guo, Fei Pang, Shanshan Chen,* Haitao Yang,* Hong-Jun Gao and Zhihai Cheng*

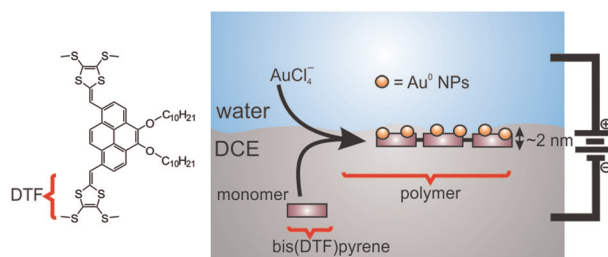


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Electrosynthesis of Au nanocluster embedded conductive polymer films at soft interfaces using dithiafulvenyl-functionalized pyrene

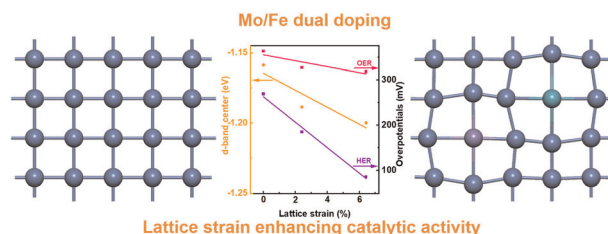
Reza Moshrefi, Katelyn Ryan, Evan P. Connors, Joshua C. Walsh, Erika Merschrod, Graham J. Bodwell and Talia Jane Stockmann*



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Tunable d-band center of a NiFeMo alloy with enlarged lattice strain enhancing the intrinsic catalytic activity for overall water-splitting

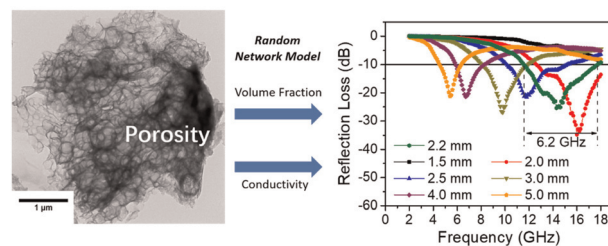
Kewen Ma, Xueru Chang, Zehua Wang, Renchao Deng, Xiao Wu and Hao Yang*



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Modulation of electromagnetic wave absorption via porosity in Pechini-derived carbon guided by a random network model

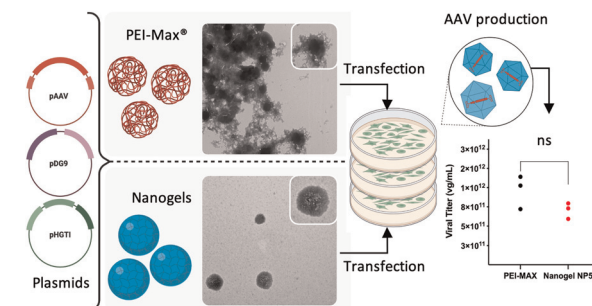
Yuan Fang, Yue Zhang, Wenjian Wang, Shuai Wang, Xingwang Hou, Yilin Huang, Weiping Ye, Rankun Yang, Rui Zhao,* Weidong Xue,* Chenghua Zhou, Honghu Zhang and Xiong He



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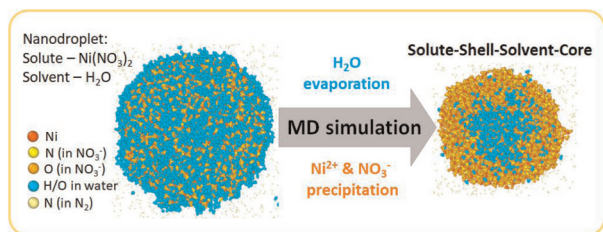
Microfluidic production of nanogels as alternative triple transfection reagents for the manufacture of adeno-associated virus vectors

Zoe Whiteley, Giulia Massaro, Georgios Gkogkos, Asterios Gavrilidis, Simon N. Waddington, Ahad A. Rahim and Duncan Q. M. Craig*



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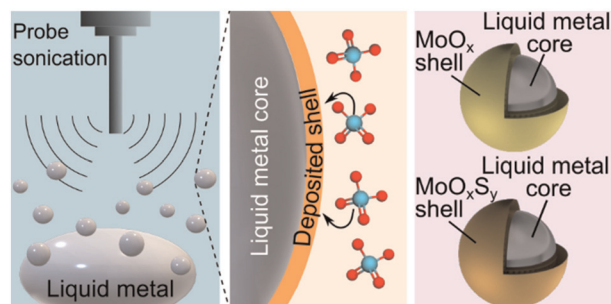
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Molecular dynamics study on evaporation of metal nitrate-containing nanodroplets in flame spray pyrolysis

Dingyu Hou, Geng Wang, Jingqi Gao and Kai H. Luo*

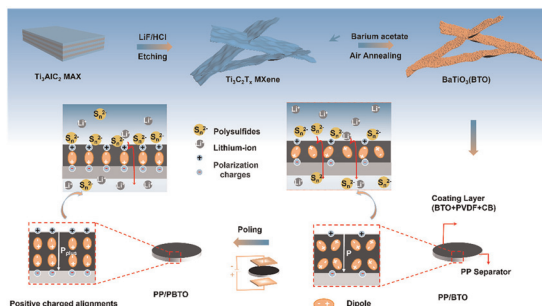
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Coating of gallium-based liquid metal particles with molybdenum oxide and oxysulfide for electronic band structure modulation

Mohammad B. Ghasemian,* Yifang Wang, Francois-Marie Allieux, Ali Zavabeti and Kourosh Kalantar-Zadeh*

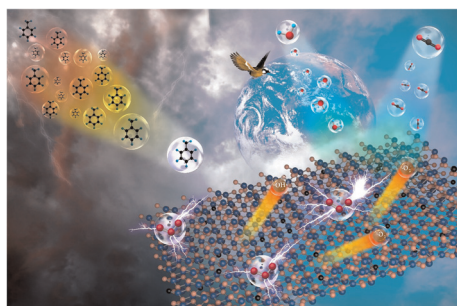
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A separator modified by barium titanate with macroscopic polarization electric field for high-performance lithium–sulfur batteries

Li Ma, Youquan Zhang, Chunxiao Zhang, Hai Zhu, Shuai Zhang, Mingyang Yan, Chaoping Liang, Yan Zhang, Yuejiao Chen, Libao Chen, Weifeng Wei and Liangjun Zhou*

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Volatile organic compound removal by post plasma-catalysis over porous TiO_2 with enriched oxygen vacancies in a dielectric barrier discharge reactor

Wenjie Wu, Saiyu Bu, Liang Bai, Yuanting Su, Yenan Song,* Haitao Sun, Guangyin Zhen, Ke Dong, Lunhua Deng, Qinghong Yuan, Chengbin Jing and Zhuo Sun*

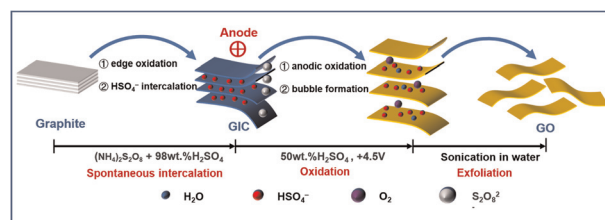


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Stepwise rapid electrolytic synthesis of graphene oxide for efficient adsorption of organic pollutants

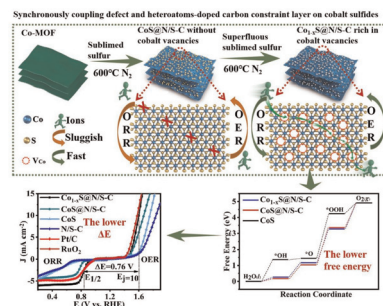
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Synchronous coupling of defects and a heteroatom-doped carbon constraint layer on cobalt sulfides toward boosted oxide electrolysis activities for highly energy-efficient micro-zinc–air batteries

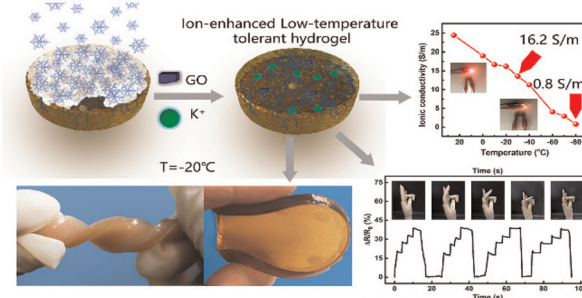
Juanjuan Zhao, Hao Tan, Zhenfa Zi, Li Song, Haibo Hu,* Haijun Zhang* and Mingzai Wu*



5938

Fabrication of an ion-enhanced low-temperature tolerant graphene/PAA/KCl hydrogel and its application for skin sensors

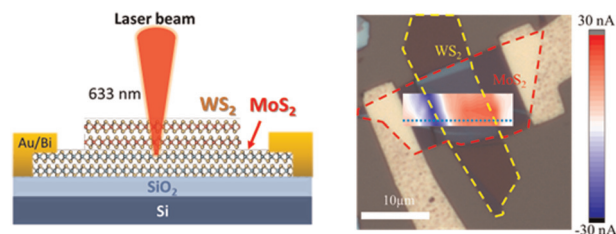
Yaoyao Wang, Longhang Zhu, XiangYu Kong, Haimei Lu, Chao Wang,* Yong Huang and Min Wu*



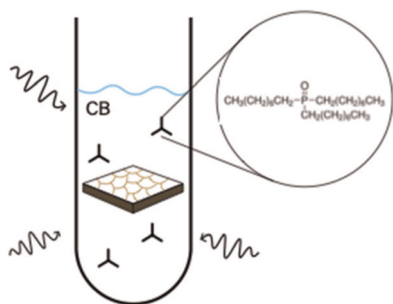
5948

Observation of the photovoltaic effect in a van der Waals heterostructure

Shaochun Zhang, Mina Maruyama, Susumu Okada, Mengsong Xue, Kenji Watanabe, Takashi Taniguchi, Kazuki Hashimoto, Yasumitsu Miyata, Ruben Canton-Vitoria and Ryo Kitaura*



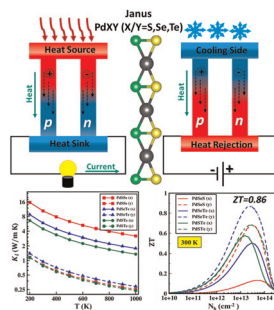
5954



Microwave-facilitated crystal growth of defect-passivated triple-cation metal halide perovskites toward efficient solar cells

Pranta Barua, Chang Min In, Mi Jung Lee* and Inchan Hwang*

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Janus β -PdXY (X/Y = S, Se, Te) materials with high anisotropic thermoelectric performance

Mukesh Jakhar, Raman Sharma and Ashok Kumar*

