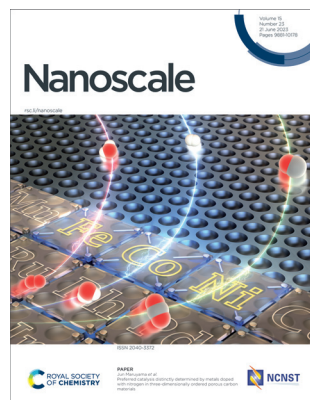


IN THIS ISSUE

ISSN 2040-3372 CODEN NANOHL 15(23) 9881-10178 (2023)



Cover

See Jun Maruyama *et al.*,
pp. 9954–9963.

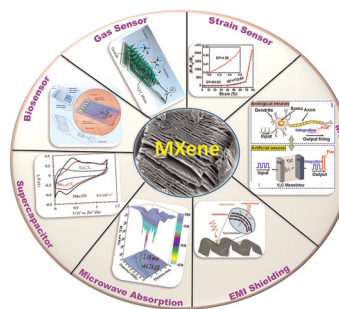
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9954.

REVIEWS

9891

Recent progress in energy, environment, and electronic applications of MXene nanomaterials

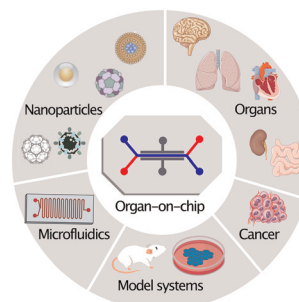
Ruhan E. Ustad, Somnath S. Kundale, Kasturi A. Rokade, Snehal L. Patil, Vijay D. Chavan, Kalyani D. Kadam, Harshada S. Patil, Sarita P. Patil, Rajanish K. Kamat, Deok-kee Kim* and Tukaram D. Dongale*



9927

Organ-on-chip systems as a model for nanomedicine

Marios Stavrou, Ngan Phung, Jan Grimm and Chrysafis Andreou*



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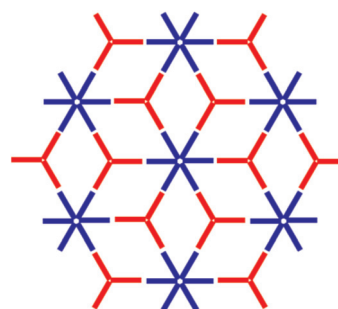


COMMUNICATIONS

9941

Surface-assisted self-assembly of 2D, DNA binary crystals

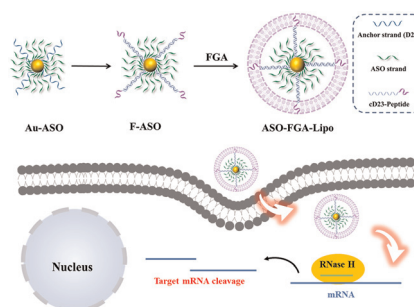
Longfei Liu, Dake Mao, Zhe Li, Mengxi Zheng, Kai He and Chengde Mao*



9946

Preparing liposomes through frame guided assembly with high-loading functional nucleic acids

Wei Yuan, Jiafeng Cheng, Chenyou Zhu, Guizhi Dong, Xiaoping Zhao, Siwen Meng, Dongsheng Liu and Yuanchen Dong*

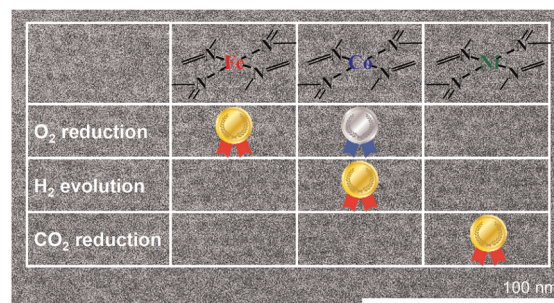


PAPERS

9954

Preferred catalysis distinctly determined by metals doped with nitrogen in three-dimensionally ordered porous carbon materials

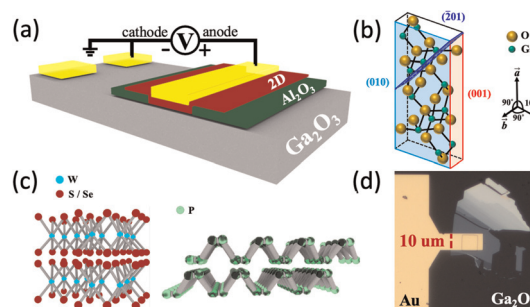
Jun Maruyama,* Hirohumi Sato, Yuko Takao, Shohei Maruyama, Shintaro Kato, Kazuhide Kamiya, Koki Chida, Takeharu Yoshii, Hirotomoto Nishihara and Fumito Tani



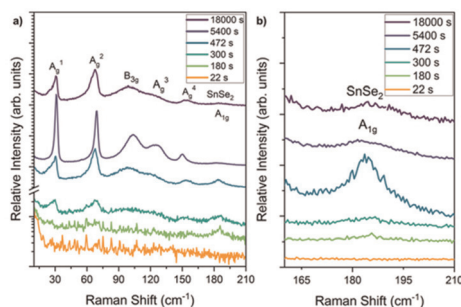
9964

Vertical van der Waals heterojunction diodes comprising 2D semiconductors on 3D β -Ga₂O₃

Chloe Leblanc, Dinusha Herath Mudiyansele, Seunguk Song, Huairuo Zhang, Albert V. Davydov, Houqiang Fu and Deep Jariwala*



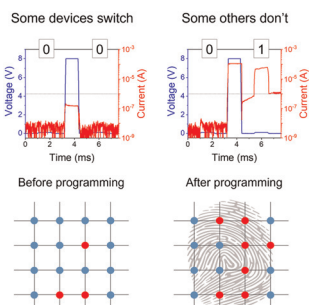
9973



Self-limiting stoichiometry in SnSe thin films

Jonathan R Chin, Marshall B. Frye, Derrick Shao-Heng Liu, Maria Hilse, Ian C. Graham, Jeffrey Shallenberger, Ke Wang, Roman Engel-Herbert, Mengyi Wang, Yun Kyung Shin, Nadire Nayir, Adri C. T. van Duin and Lauren M. Garten*

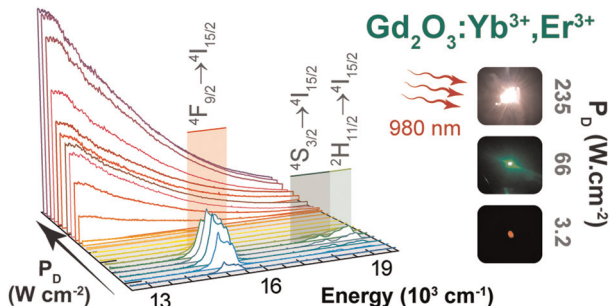
9985



Inkjet-printed h-BN memristors for hardware security

Kaichen Zhu, Giovanni Vescio, Sergio González-Torres, Julià López-Vidrier, Juan Luis Friero, Sebastian Pazos, Xu Jing, Xu Gao, Sui-Dong Wang, Joaquín Ascorbe-Muruzábal, Juan A. Ruiz-Fuentes, Albert Cirera, Blas Garrido and Mario Lanza*

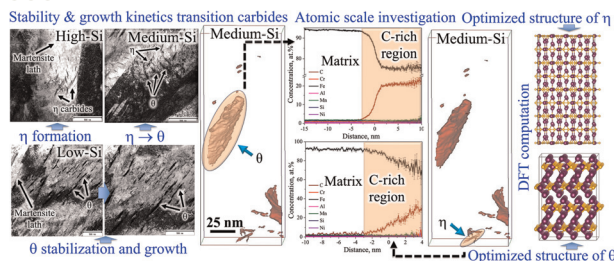
9993



Exploring the intra-4f and the bright white light upconversion emissions of Gd₂O₃:Yb³⁺,Er³⁺-based materials for thermometry

Talita J. S. Ramos, Ricardo L. Longo,* Carlos D. S. Brites, Rute A. S. Ferreira, Oscar L. Malta and Luís D. Carlos*

10004



A combined 3D-atomic/nanoscale comprehension and *ab initio* computation of iron carbide structures tailored in Q&P steels via Si alloying

Sumit Ghosh,* Khushboo Rakha, Assa Aravindh Sasikala Devi, Shahriar Reza, Sakari Pallaspuro, Mahesh Somani, Marko Huttula and Jukka Kömi

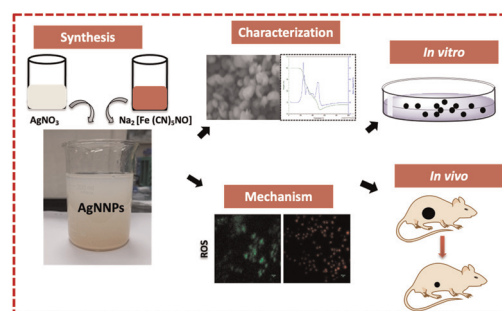


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10017

Silver nitroprusside nanoparticles for breast cancer therapy: *in vitro* and *in vivo* approach

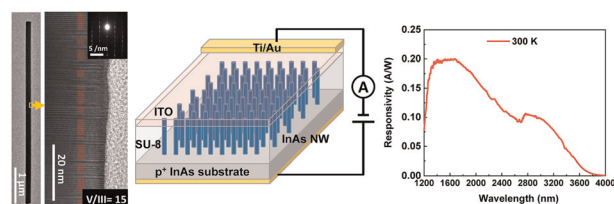
Swapnali Londhe, Shagufta Haque, Sanchita Tripathy, Sreedhar Bojja and Chitta Ranjan Patra*



10033

InAs nanowire arrays for room-temperature ultra-broadband infrared photodetection

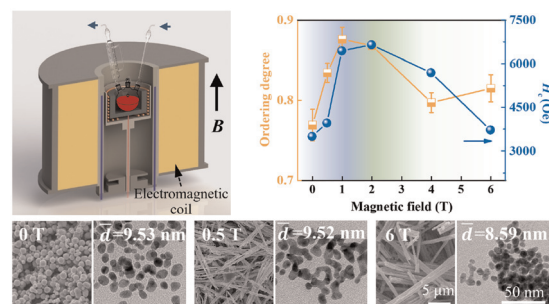
Ziyuan Li, Zahra Azimi, Zhe Li, Yang Yu, Longsibo Huang, Weiqi Jin, Hark Hoe Tan, Chennupati Jagadish, Jennifer Wong-Leung* and Lan Fu*



10042

Regulating the morphology and structures of wet-chemical synthesized L1₀-FePtMn nanoparticles by applying magnetic fields

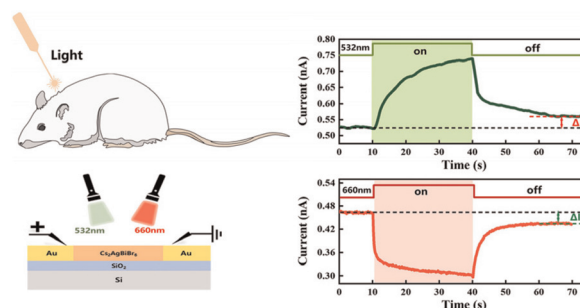
Ling Chang, Chun Wu, Dong Zhao, Qunshou Wang, Kai Wang, Qiang Wang* and Wenli Pei*



10050

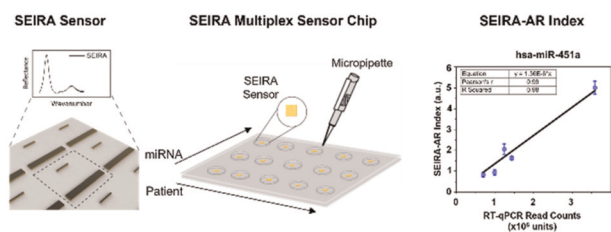
Optogenetics-inspired manipulation of synaptic memory using all-optically controlled memristors

Qihao Sun, Zhecheng Guo, Xiaojian Zhu,* Qian Jiang, Huiyuan Liu, Xuerong Liu, Cui Sun, Yuejun Zhang,* Liu Wu and Run-Wei Li



PAPERS

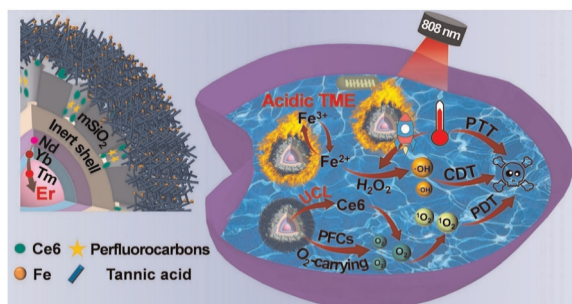
10057



Label-free detection of MiRNA biomarkers using broadband multi-resonant infrared metasurfaces for early breast cancer diagnosis

Shuyan Zhang, Qing Yang Steve Wu, Yi Fan Chen, Melissa Hum, Dave Chi Lok Wong, Ern Yu Tan, Ann Siew Gek Lee,* Jinghua Teng,* Dinish U.S.* and Malini Olivo*

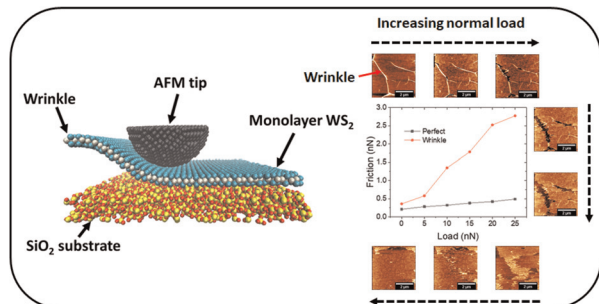
10067



An engineered cascade-sensitized red-emitting upconversion nanostructure with a tandem hydrophobic hydration-shell and metal-phenolic network decoration for single 808 nm triggered simultaneous tumor PDT and PTT enhanced CDT

Yameng Li, Yingjie Ding, Yifan Zhang, Zhiyue Sun, Jiao Liu, Mengxia Dai, Jiayi Feng, Bin Li, Chaozhan Wang, Yinmao Wei and Ji-Wei Shen*

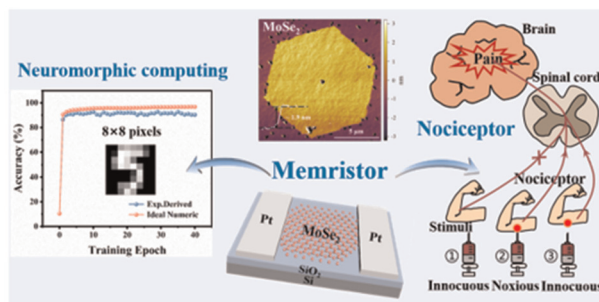
10079



Nanoscale friction and wear behavior of a CVD-grown aged WS₂ monolayer: the role of wrinkles and surface chemistry

Himanshu Rai, Deepa Thakur, Aayush Gadal, Zhijiang Ye,* Viswanath Balakrishnan* and Nitya Nand Gosvami*

10089



Memristors based on 2D MoSe₂ nanosheets as artificial synapses and nociceptors for neuromorphic computing

Huan Duan, Dehui Wang, Jingxi Gou, Feng Guo, Wenjing Jie* and Jianhua Hao*



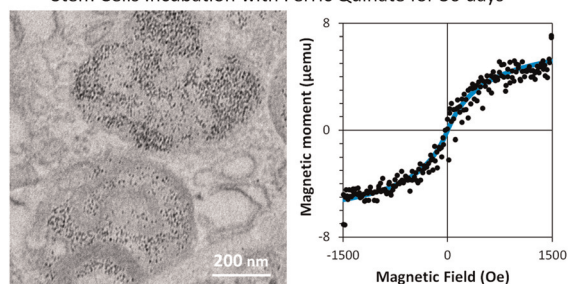
PAPERS

10097

Biominingalization of magnetic nanoparticles in stem cells

Alexandre Fromain, Aurore Van de Walle, Guilhem Curé, Christine Péchoux, Aida Serrano, Yoann Lalatonne, Ana Espinosa and Claire Wilhelm*

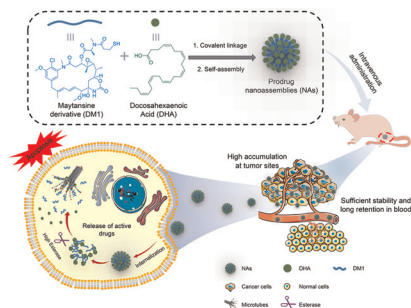
Stem Cells Incubation with Ferric Quinate for 36 days



10110

Transforming a highly toxic agent DM1 into injectable safe nanomedicines via prodrug self-assembly for the treatment of taxane-resistant cancer

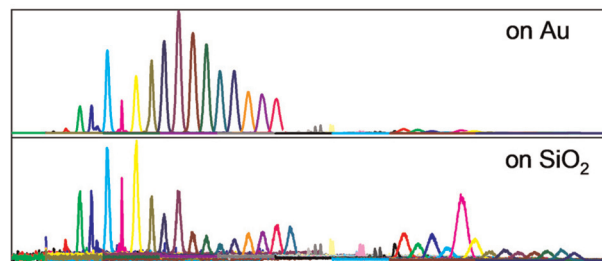
Jiangling Huang, Shanshan Song, Min Wang* and Hangxiang Wang*



10125

Giant enhancement of second-harmonic generation of indium selenide on planar Au

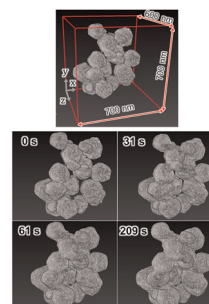
Yuxuan Ke, Chun Li, Yin Liang, Xi Zhang, Jiepeng Song, Ruijie Li, Lei Liu, Junfeng Dai, Zhongming Wei and Qing Zhang*



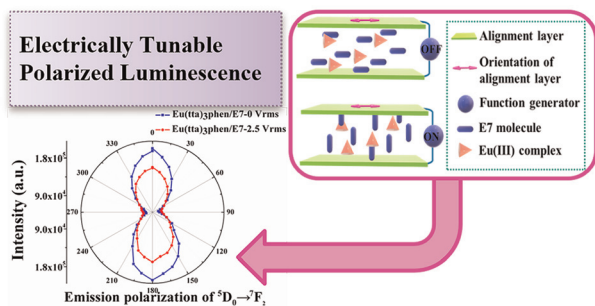
10133

In situ electron tomography for the thermally activated solid reaction of anaerobic nanoparticles

Shiro Ihara, Mizumo Yoshinaga, Hiroya Miyazaki, Kota Wada, Satoshi Hata, Hikaru Saito* and Mitsuhiro Murayama



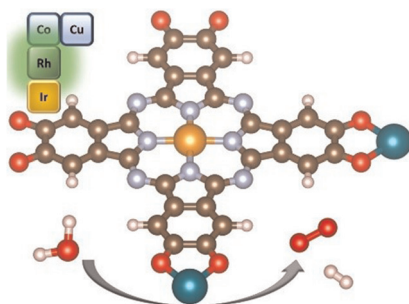
10141



Electrically tunable polarized luminescence from guest–host composites *via* interaction between rare earth complexes and liquid crystals

Xu Sang, Kang Zhang, Adnan Khan, Rui Xu, Yan Li, Jiaxin Yang, Ming Feng, Lisa Liu, Feng Song* and Wei Huang*

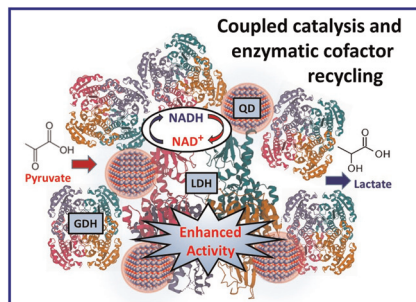
10149



Bimetallic conjugated metal–organic frameworks as bifunctional electrocatalysts for overall water splitting

Tsz Lok Wan, Junxian Liu, Xin Tan, Minghao Liu, Sean Smith* and Liangzhi Kou*

10159



Enzyme assembly on nanoparticle scaffolds enhances cofactor recycling and improves coupled reaction kinetics

Joyce C. Breger, Ellen R. Goldman, Kimihiro Susumu, Eunkeu Oh, Christopher M. Green, Shelby L. Hooe, Meghna Thakur, Igor L. Medintz and Gregory A. Ellis*

