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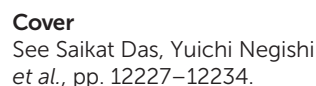


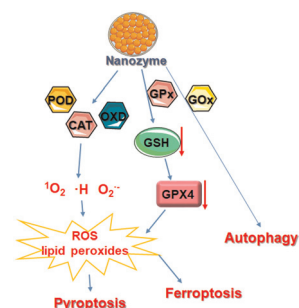
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## 12137

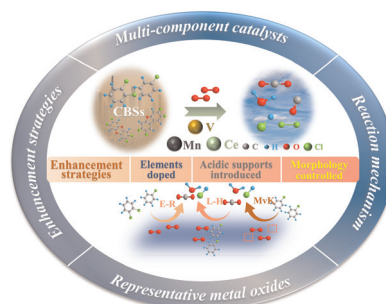
Yuan Zhang,\* Wanpeng Yu, Mengmeng Chen,  
Bingqiang Zhang, Lei Zhang and Peifeng Li\*



## 12157

## Research advances in chlorinated benzene-containing compound oxidation catalyzed by metal oxides: activity-enhanced strategies and reaction-facilitated mechanisms

Ning Luo, Fengyu Gao, Du Chen, Erhong Duan,  
Zaharaddeen Sani, Honghong Yi and Xiaolong Tang\*



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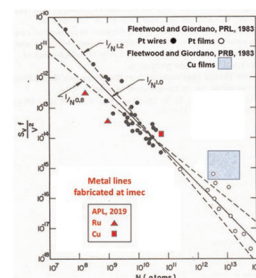


## REVIEWS

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## Low-frequency noise in nanowires

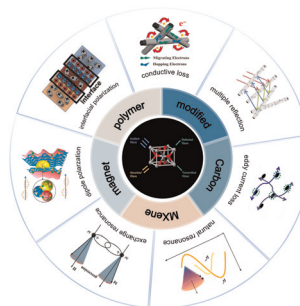
Daniel M. Fleetwood

After D. M. Fleetwood, et al., *Appl. Phys. Lett.*, 2019, **114**, 203501.

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Recent progress in TiO<sub>2</sub>-based microwave absorption materials

Yifan Fei, Wenling Jiao,\* Zhengchen Wu, Zaihui Yang, Wei Cheng and Renchao Che\*

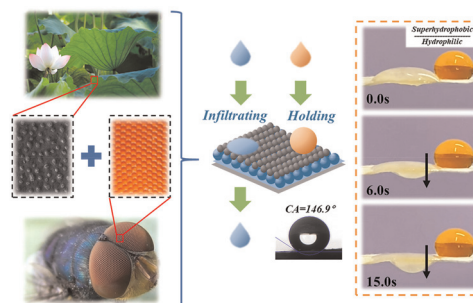


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## Bioinspired hierarchical colloidal crystal paper with Janus wettability for oil/water separation and heavy metal ion removal

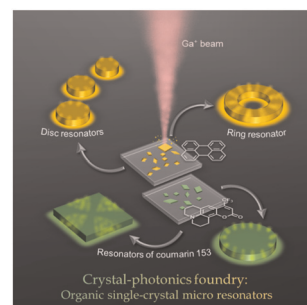
Lihao Zhang, Yufei Chen, Yue Cao, Sunlong Li, Weipeng Lu, Wei Cao, Jialiang Zhu, Weiting Bao, Ming Shao, Zhixing Gan, Yunsong Di, Fangjian Xing, Xiang Li, Liang Zhang\* and Cihui Liu\*



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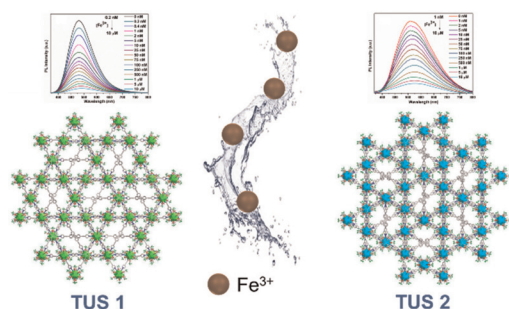
## Crystal photonics foundry: geometrical shaping of molecular single crystals into next generation optical cavities

Vuppu Vinay Pradeep, Melchi Chosenyah, Evgeniy Mamonov\* and Rajadurai Chandrasekar\*



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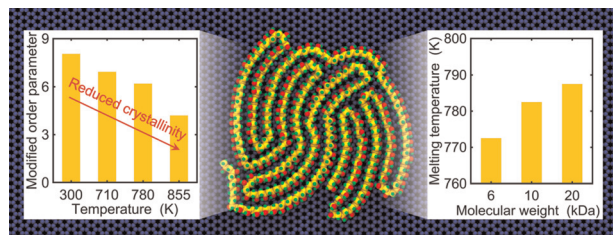
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### Synthesis and luminescence properties of two silver cluster-assembled materials for selective $\text{Fe}^{3+}$ sensing

Jin Sakai, Sourav Biswas, Tsukasa Irie, Haruna Mabuchi, Taishu Sekine, Yoshiki Niihori, Saikat Das\* and Yuichi Negishi\*

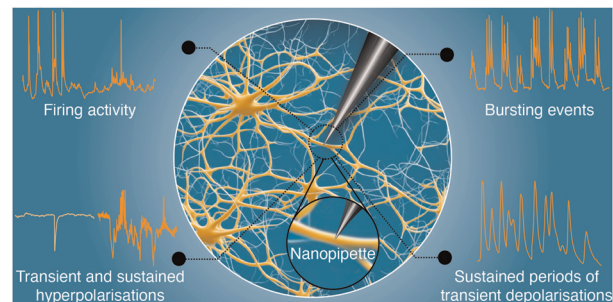
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### Crystallization and melting of polymer chains on graphene and graphene oxide

Arman Ghasemi, Yangchao Liao, Zhaofan Li, Wenjie Xia\* and Wei Gao\*

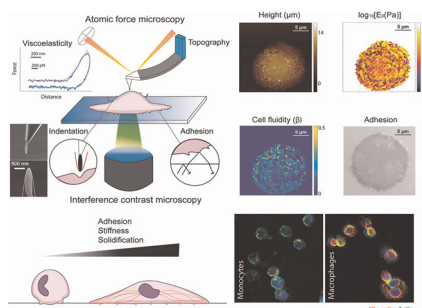
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### Diversity of dynamic voltage patterns in neuronal dendrites revealed by nanopipette electrophysiology

Jeffrey Mc Hugh,\* Stanislaw Makarchuk, Daria Mozheiko, Ana Fernandez-Villegas, Gabriele S. Kaminski Schierle, Clemens F. Kaminski, Ulrich F. Keyser, David Holcman and Nathalie Rouach\*

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### Coupled mechanical mapping and interference contrast microscopy reveal viscoelastic and adhesion hallmarks of monocyte differentiation into macrophages

Mar Eroles, Javier Lopez-Alonso, Alexandre Ortega, Thomas Boudier, Khaldoun Gharzeddine, Frank Lafont, Clemens M Franz, Arnaud Millet, Claire Valotteau and Felix Rico\*



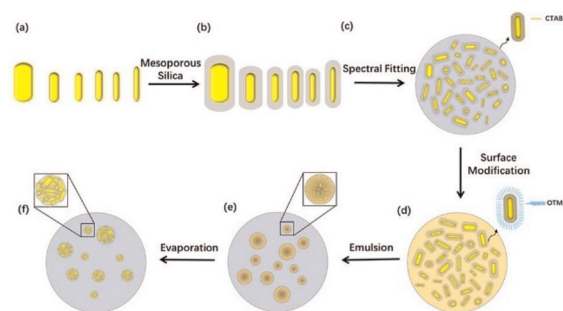


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**Superparticles of gold nanorods with controllable bandwidth and spectral shape for lipophilic SERS**

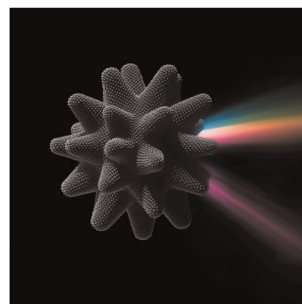
Xun Li, Xi Chen, Jie Liu, Xiaoyu Zhao, Jia Liu, Zhiquan Cheng and Tian-Song Deng\*



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**Understanding the Raman enhancement of carbon nanohorns labelled with organic dyes**

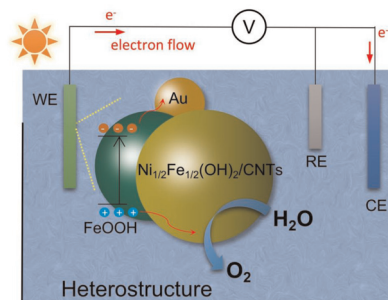
Daniel Iglesias, Raúl Martín, Miguel Á. Álvarez-Sánchez, Irene Badía-Domínguez, Ester Vázquez, M. Carmen Ruiz Delgado,\* Pilar Prieto\* and M. Antonia Herrero\*



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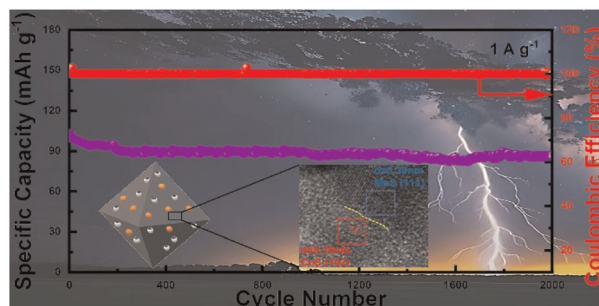
Xiaomei Yu, Zhe Deng, Jiahao Yao, Xinjie Zhang, Lili Zhang,\* Hao Wan, Jian Gao, Renzhi Ma and Wei Ma\*



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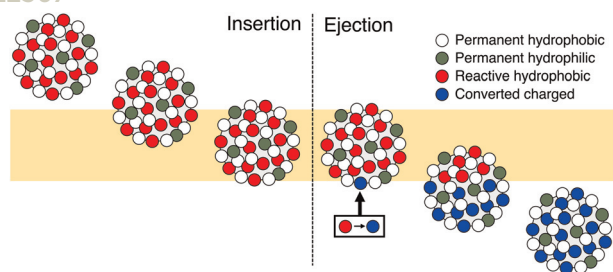
**A bimetallic metal–organic framework derived MnS/CoS@C heterostructure with enhanced sodium-ion storage**

Zongyuan Jiang, Shaohui Li, Yining Chen, Jingwei Chen, Cong Wei\* and Qun Xu\*



## PAPERS

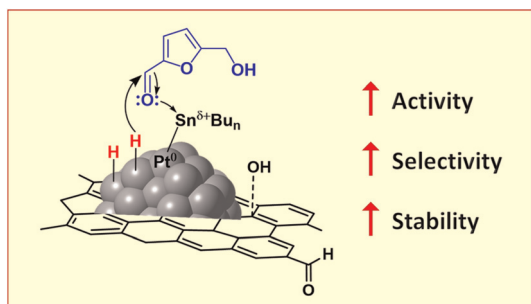
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## Non-equilibrium transport of nanoparticles across the lipid membrane

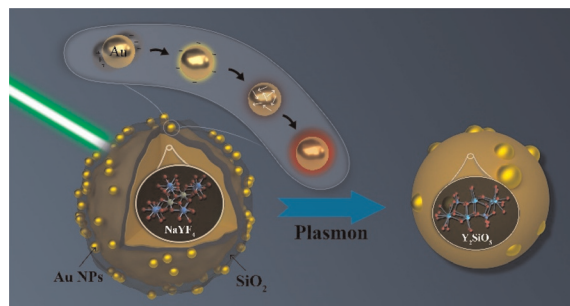
Younghoon Oh and Qiang Cui\*

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Boosting the catalytic performance of graphene-supported Pt nanoparticles *via* decorating with  $-\text{SnBu}_n$ : an efficient approach for aqueous hydroxylation of biomass-derived compounds

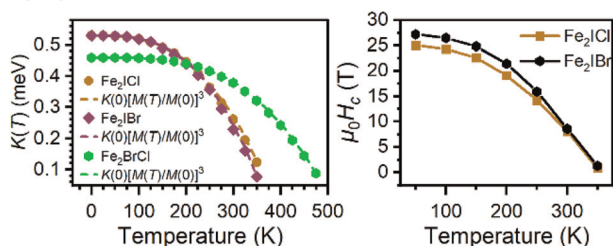
Adrián García-Zaragoza, Christian Cerezo-Navarrete,\* Pascual Oña-Burgos and Luis M. Martínez-Prieto\*

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Surface plasmon assisted preparation of X1-type Y<sub>2</sub>SiO<sub>5</sub>:Eu<sup>3+</sup>-Au luminescent crystals

Lei Xi, Chengyun Zhang, Hairegu Tuxun, Baobao Zhang, Min Ji, Xilin Zhou, Wanqiu Liang, Jinyu Li, Huan Chen, Jinping Li,\* Zhengkun Fu,\* Zhenglong Zhang and Hairong Zheng

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Temperature-dependent magnetic properties of the room-temperature ferromagnetic Janus monolayer  $\text{Fe}_2\text{XY}$  ( $X, Y = \text{I}, \text{Br}, \text{Cl}; X \neq Y$ )

Chenhai Shen,\* Xueping Li, Tianxing Wang, Guangtao Wang and Congxin Xia\*

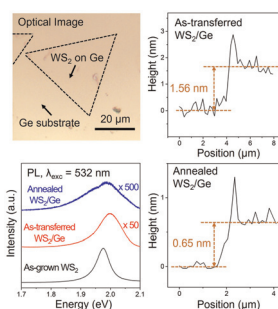


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# Effects of post-transfer annealing and substrate interactions on the photoluminescence of 2D/3D monolayer WS<sub>2</sub>/Ge heterostructures

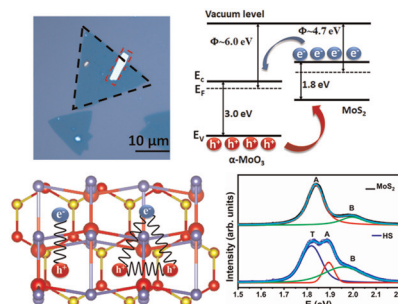
Tianyi Zhang, Andrew Voshell, Da Zhou, Zachary D. Ward, Zhuohang Yu, Mingzu Liu, Kevin O. Díaz Aponte, Tomotaroh Granzier-Nakajima, Yu Lei, He Liu, Humberto Terrones, Ana Laura Elías, Mukti Rana\* and Mauricio Terrones\*



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# Observation of positive trions in $\alpha$ -MoO<sub>3</sub>/MoS<sub>2</sub> van der Waals heterostructures

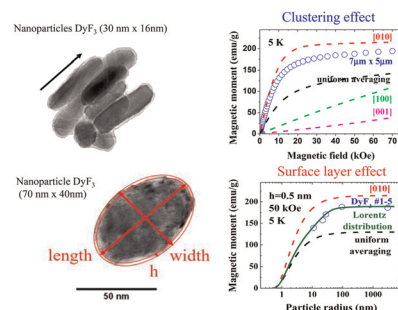
Ravindra Kumar, Vikash Mishra, Tejendra Dixit, Prahalad Kanti Barman, Pramoda K. Nayak\* and M. S. Ramachandra Rao\*



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# A study of the size and clustering effects of DyF<sub>3</sub> samples

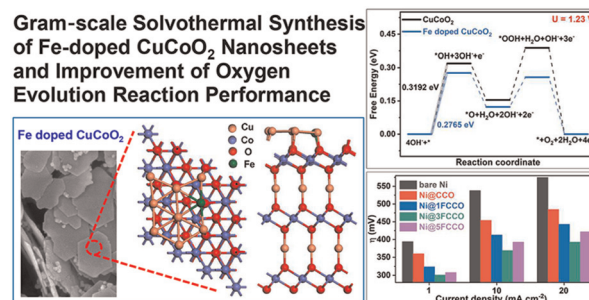
Adeliya Garaeva, Irina Romanova, Ekaterina Boltchenkova\*, Marina Likholetova, Murat Tagirov and Egor Alakshin



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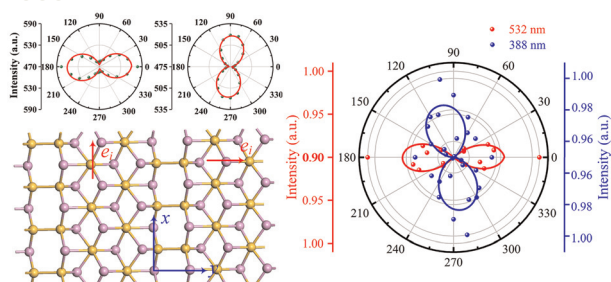
# Gram-scale solvothermal synthesis of Fe-doped CuCoO<sub>2</sub> nanosheets and improvement of the oxygen evolution reaction performance

Miao Yang, Hao Tan, Shiyu Ma, Yue Mi, Lifeng Liu, Zongyan Zhao, Hong Li and Dehua Xiong\*



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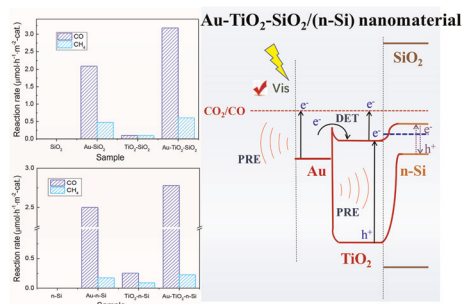
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### Observation of optical anisotropy and a linear dichroism transition in layered silicon phosphide

Xing Xie, Junnan Ding, Biao Wu, Haihong Zheng, Shaofei Li, Chang-Tian Wang, Jun He, Zongwen Liu, Jian-Tao Wang, Ji-an Duan\* and Yanping Liu\*

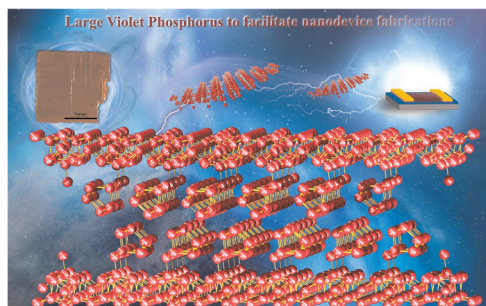
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### Plasmon photocatalytic CO<sub>2</sub> reduction reactions over Au particles on various substrates

Kai Wang and Tao He\*

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### Synthesis of violet phosphorus with large lateral sizes to facilitate nano-device fabrications

Yanhao Wang, Mengting Jin, Mengyue Gu, Xuewen Zhao, Jinan Xie, Guodong Meng, Yonghong Cheng, Jinjiang He\* and Jinying Zhang\*

