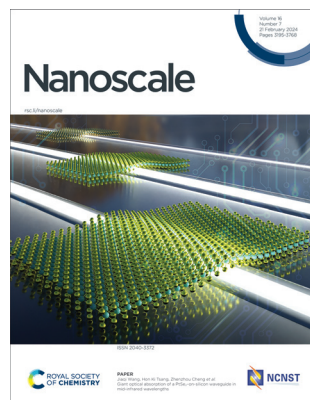


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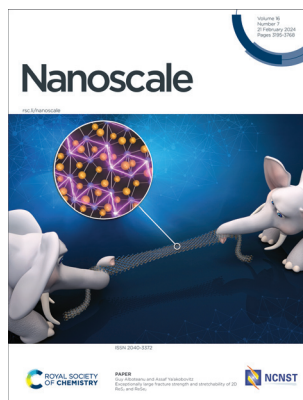
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Cover

See Jiaqi Wang, Hon Ki Tsang, Zhenzhou Cheng *et al.*, pp. 3448–3453.

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Inside cover

See Guy Alboteanu and Assaf Ya'akovovitz, pp. 3454–3461.

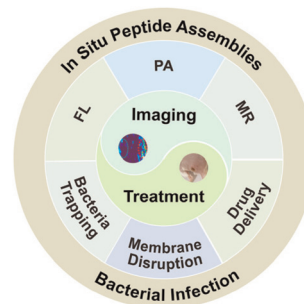
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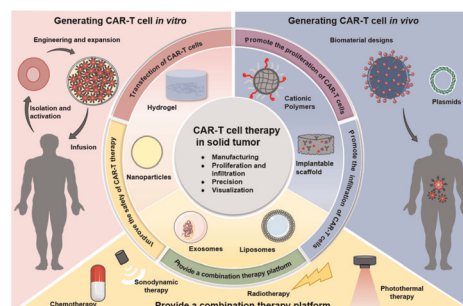
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Recent advances in biomaterial designs for assisting CAR-T cell therapy towards potential solid tumor treatment

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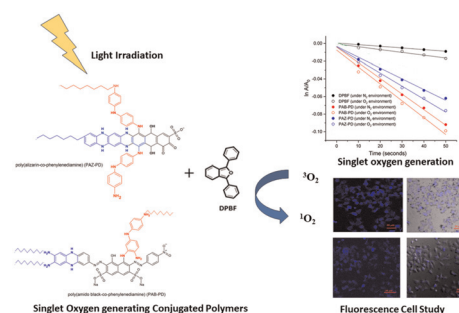
**Fundamental questions
Elemental answers**

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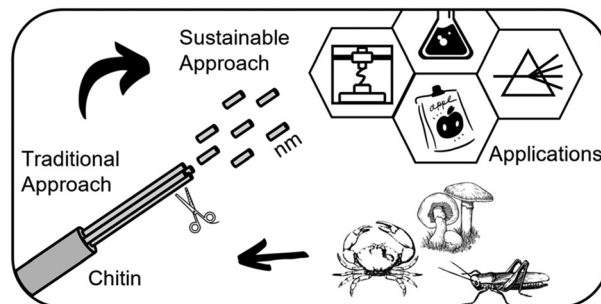
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Nanochitin for sustainable and advanced manufacturing

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'When is a hotspot a good nanospot' – review of analytical and hotspot-dominated surface enhanced Raman spectroscopy nanoplatforms

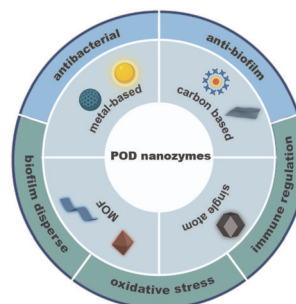
Mike Hardy* and Pola Goldberg Oppenheimer*



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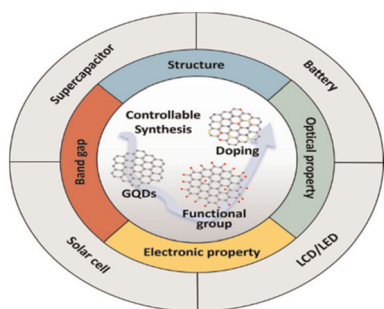
Advanced nanozymes possess peroxidase-like catalytic activities in biomedical and antibacterial fields: review and progress

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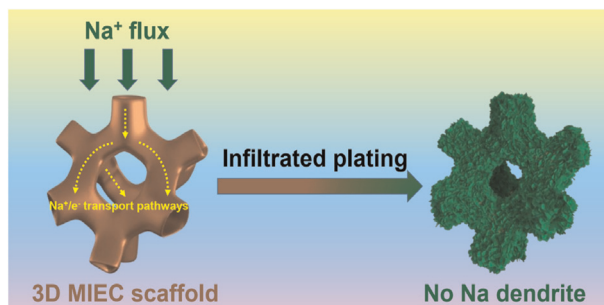


Engineering functionalization and properties of graphene quantum dots (GQDs) with controllable synthesis for energy and display applications

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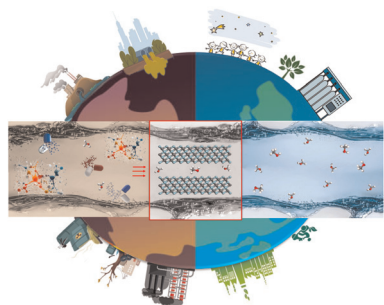
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3D mixed ion/electron-conducting scaffolds for stable sodium metal anodes

Xuan Lu, Xiuxia Zhao, Shujiang Ding* and Xiaofei Hu*

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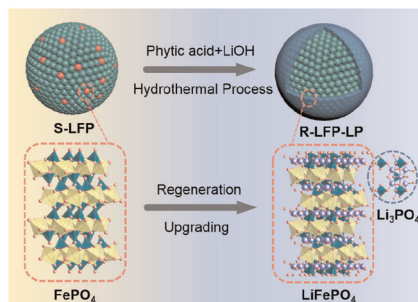


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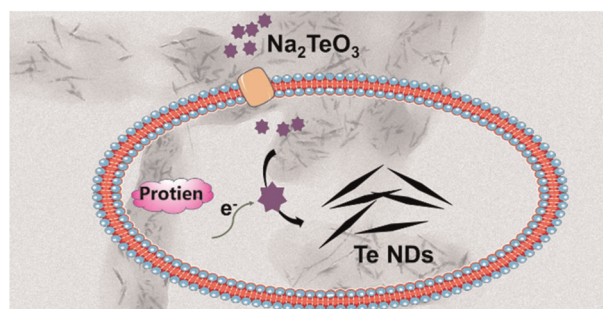


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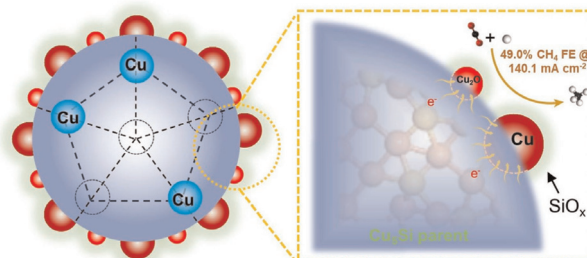
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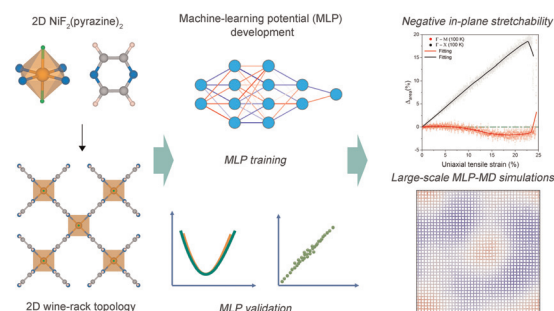
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Dong Fan,* Aydin Ozcan, Pengbo Lyu and Guillaume Maurin*

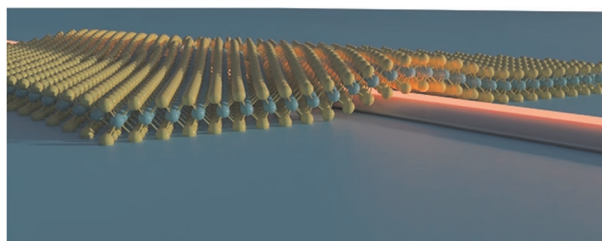


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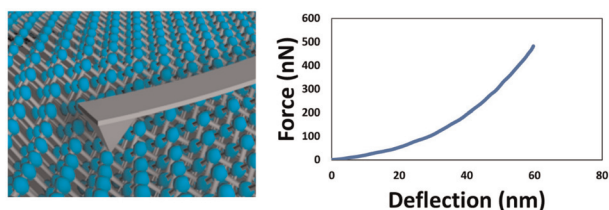
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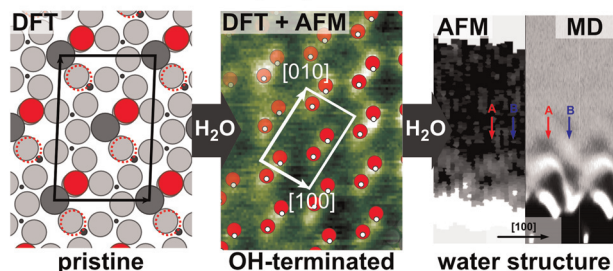


Exceptionally large fracture strength and stretchability of 2D ReS₂ and ReSe₂

Guy Alboteanu and Assaf Ya'akovitz*

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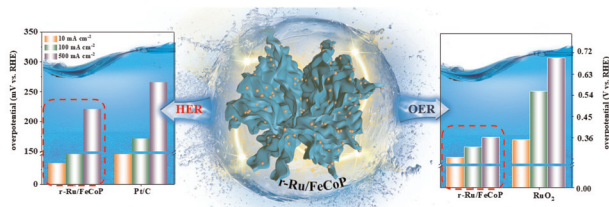
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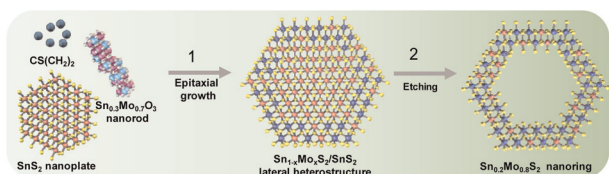
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Metal chalcogenide nanorings for temperature-strain dual-mode sensing

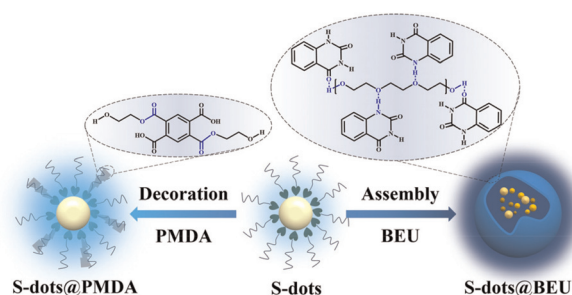
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Fabrication of highly luminescent and thermally stable composites of sulfur nanodots through surface modification and assembly

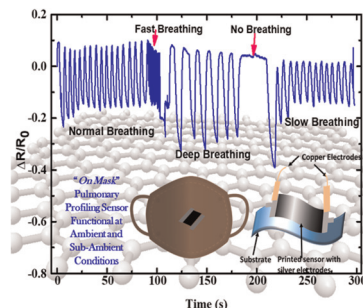
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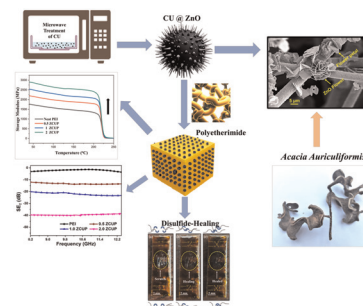
Simran Sharma, Ankur Thapa, Sumit Singh and Titash Mondal*



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Microwave-assisted ZnO-decorated carbon urchin resembling 'shish-kebab' morphology with self-healing and enhanced electromagnetic shielding properties

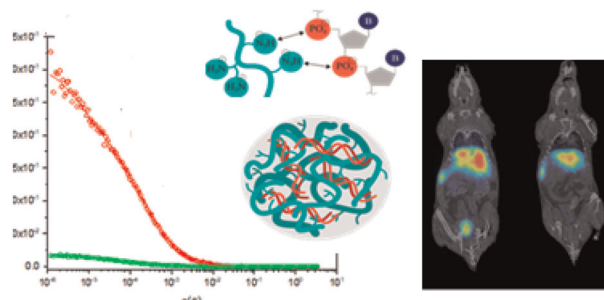
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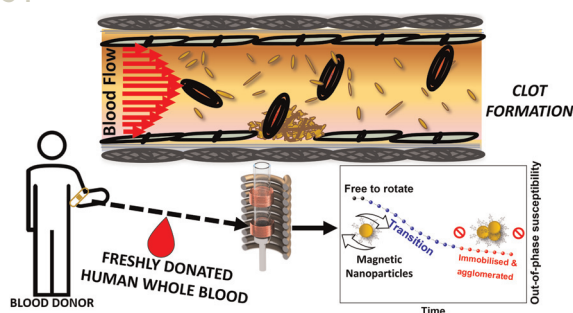
A study of complexation and biological fate of polyethyleneimine-siRNA polyplexes *in vitro* and *in vivo* by fluorescence correlation spectroscopy and positron emission tomography imaging

Tanja Ludtke, Cristina Simó, Santiago Gimenez Reyes, Marta Martinez Moro, Cristian Salvador, Hernan Ritacco, Patrizia Andreozzi, Jordi Llop* and Sergio E. Moya*



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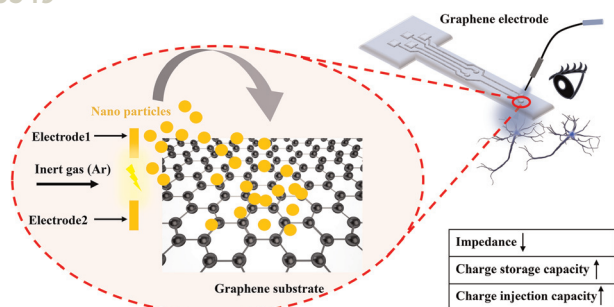
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Magnetic coagulometry: towards a new nanotechnological tool for ex vivo monitoring coagulation in human whole blood

Antonio Santana-Otero, Alan Harper, Neil Telling, Daniel Ortega* and David Cabrera*

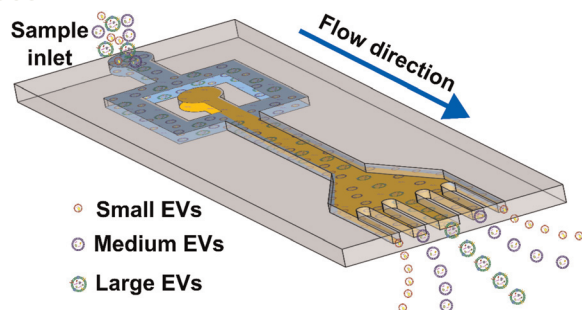
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Surface modification of multilayer graphene electrodes by local printing of platinum nanoparticles using spark ablation for neural interfacing

Nasim Bakhshae Babaroud,* Samantha J. Rice, Maria Camarena Perez, Wouter A. Serdijn, Sten Vollebregt and Vasiliki Giagka

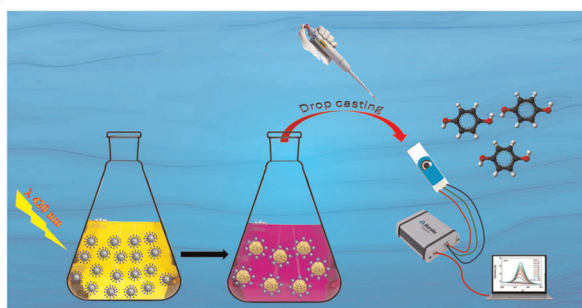
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Samith Hettiarachchi, Lingxi Ouyang, Haotian Cha, Helena H. W. B. Hansen, Honjie An, Nam-Trung Nguyen* and Jun Zhang*

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Photochemical synthesis, characterization, and electrochemical sensing properties of CD-AuNP nanohybrids

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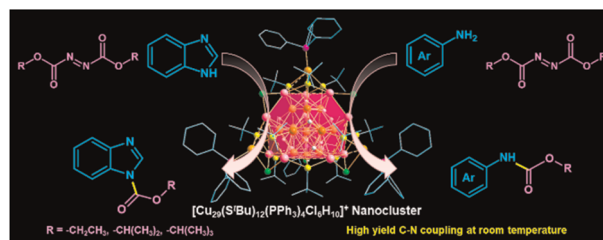


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A thiolated copper-hydride nanocluster with chloride bridging as a catalyst for carbonylative C–N coupling of aryl amines under mild conditions: a combined experimental and theoretical study

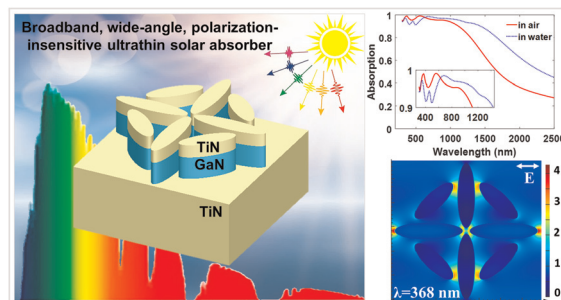
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An elliptical nanoantenna array plasmonic metasurface for efficient solar energy harvesting

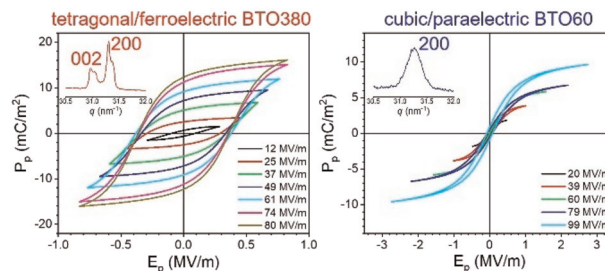
Zahra Ashrafi-Peyman, Amir Jafargholi and Alireza Z. Moshfegh*



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Nonlinear ferroelectric characteristics of barium titanate nanocrystals determined via a polymer nanocomposite approach

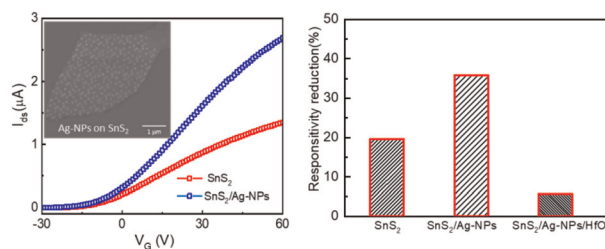
Qiong Li, Elshad Allahyarov, Tianxiong Ju, Zhiqun Lin* and Lei Zhu*



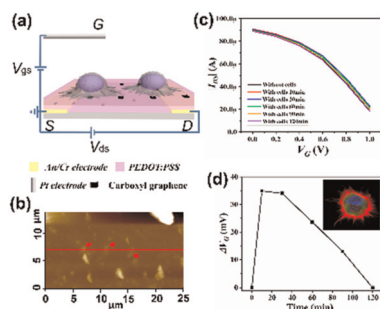
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Broadening spectral responses and achieving environmental stability in SnS₂/Ag-NPs/HfO₂ flexible phototransistors

Muhammad Farooq Khan, Sana Sadaqat, Muhammad Asghar Khan, Shania Rehman, Waqas Siddique Subhani, Mohamed Ouladsmene, Malik Abdul Rehman, Fida Ali, Harri Lipsanen, Zhipei Sun, Jonghwa Eom* and Faisal Ahmed*



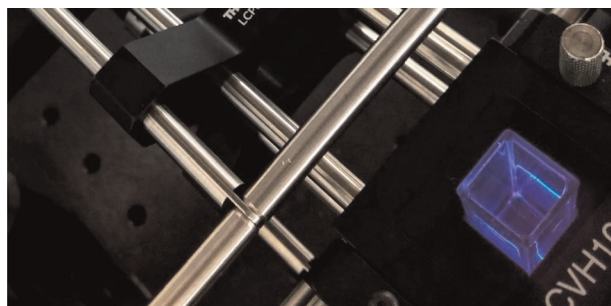
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Carboxyl graphene modified PEDOT:PSS organic electrochemical transistor for in situ detection of cancer cell morphology

Qingyuan Song, Hongni Liu, Weiyi Wang, Chaohui Chen, Yiping Cao, Bolei Chen, Bo Cai* and Rongxiang He*

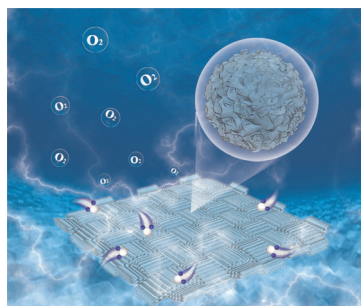
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Beam-profile compensation for quantum yield characterisation of Yb–Tm codoped upconverting nanoparticles emitting at 474 nm, 650 nm and 804 nm

J. S. Matias,* K. Komolibus, W. K. Kiang, S. Konugolu-Venkata-Sekar and S. Andersson-Engels

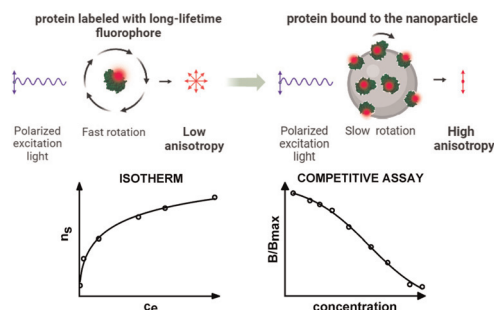
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Cr doping and heterostructure-accelerated NiFe LDH reaction kinetics assist the MoS₂ oxygen evolution reaction

Jun Tang, Jinzhao Huang,* Sixuan Zhang, Zehui Liu and Jing Xiao*

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A generic approach based on long-lifetime fluorophores for the assessment of protein binding to polymer nanoparticles by fluorescence anisotropy

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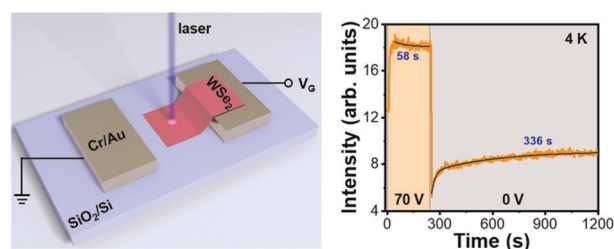


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Optical readout of charge carriers stored in a 2D memory cell of monolayer WSe₂

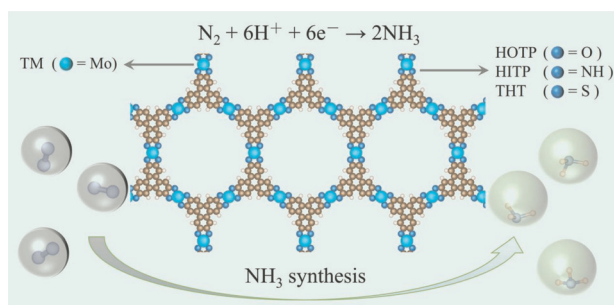
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Mo-X₄ (X = O, NH and S)-mediated triphenylene-based two-dimensional carbon-rich conjugate frameworks for an efficient nitrogen reduction reaction

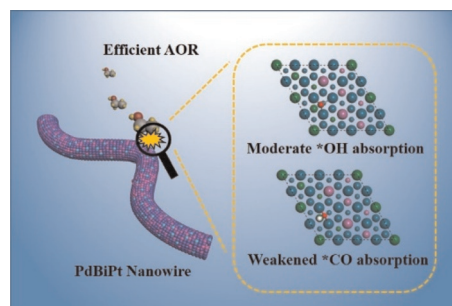
Man Qiao,* Jiachi Xie and Dongdong Zhu*



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A universal synthesis strategy of Pd-based trimetallic nanowires for efficient alcohol electrooxidation

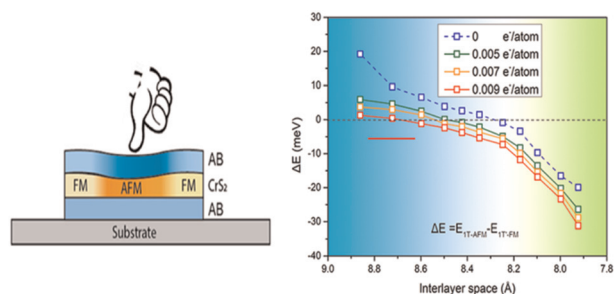
Liang Ji, Xiaoyue Zhang, Ningkan Qian, Junjie Li, Sudan Shen, Xingqiao Wu,* Xin Tan,* Hui Zhang* and Deren Yang



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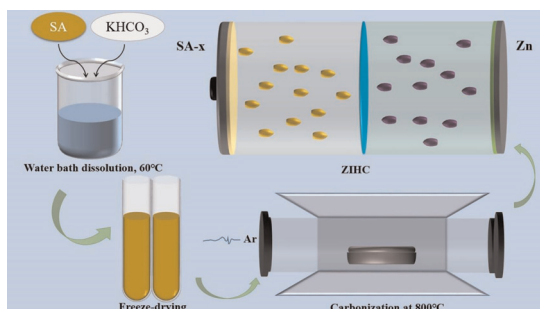
Out-of-plane pressure and electron doping inducing phase and magnetic transitions in GeC/CrS₂/GeC van der Waals heterostructure

Kaiyun Chen, Xue Yan, Junkai Deng,* Cunle Bo, Mengshan Song, Dongxiao Kan, Jiabei He, Wangtu Huo and Jefferson Zhe Liu*



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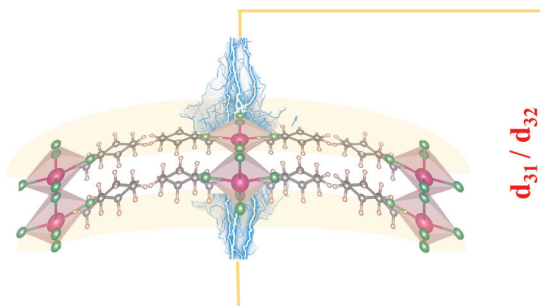
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Controllable synthesis of electric double-layer capacitance and pseudocapacitance coupled porous carbon cathode material for zinc-ion hybrid capacitors

Xiaoyi Pan, Qian Li, Tongde Wang, Tie Shu and Yousheng Tao*

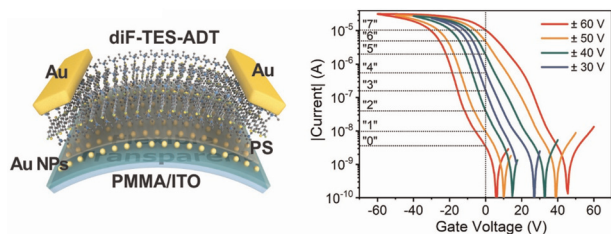
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Giant intrinsic piezoelectricity in 2D hybrid organic–inorganic perovskites $[C_6H_{11}NH_3]_2MX_4$ ($M = Ge, Sn, Pb$; $X = Cl, Br, I$)

Qiaoya Lv, Jian Qiu, Quan Wen,* Da Li, Jie Liu, Dongling Li and Xingquan Yuan

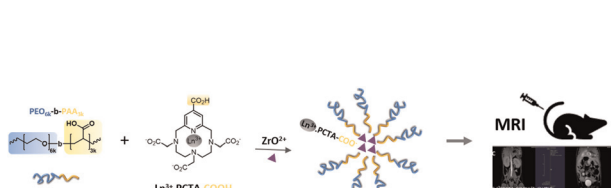
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A floating-gate field-effect transistor memory device based on organic crystals with a built-in tunneling dielectric by a one-step growth strategy

Zichen Chen, Shuai Chen,* Tianhao Jiang, Shuang Chen, Ruofei Jia, Yanling Xiao, Jing Pan, Jiansheng Jie and Xiujuan Zhang*

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Simple hybrid polymeric nanostructures encapsulating macro-cyclic Gd/Eu based complexes: luminescence properties and application as MRI contrast agent

Marjorie Yon, Lucie Esmangard, Morgane Enel, Franck Desmoulin, Carine Pestourie, Nadine Leygue, Christophe Mingotaud, Chantal Galaup* and Jean-Daniel Marty*

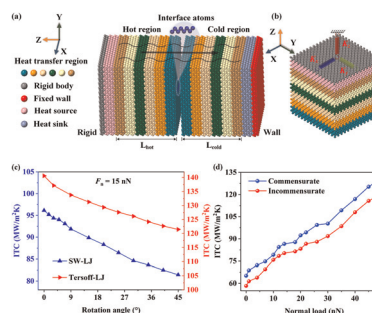


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Regulating interfacial thermal conductance with commensurate–incommensurate transitions at atomic-scale silicon/silicon interfaces

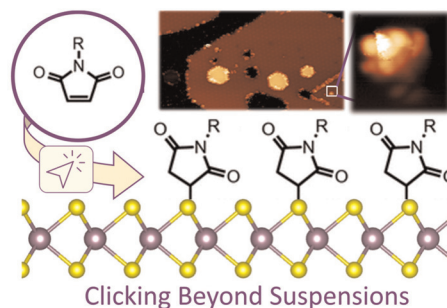
Yun Dong,* Yusong Ding, Yi Tao, Fangming Lian and Weibin Hui



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Clicking beyond suspensions: understanding thiol–ene chemistry on solid-supported MoS₂

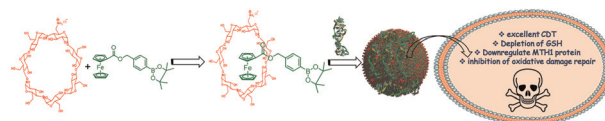
Miriam C. Rodríguez González, Iván M. Ibarburu, Clara Rebanal, Manuel Vázquez Sulleiro, Rahul Sasikumar, Alicia Naranjo, Cosme G. Ayani, Manuela Garnica, Fabián Calleja, Emilio M. Pérez,* Amadeo L. Vázquez de Parga* and Steven De Feyter*



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Multifunctional siRNA/ferrocene/cyclodextrin nanoparticles for enhanced chemodynamic cancer therapy

Gowtham Raj, D. S. Vasudev, Sarah Christopher, Anupama Babulal, P. Harsha, Soumakanya Ram, Mehul Tiwari, Markus Sauer and Reji Varghese*



CORRECTION

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Correction: High-performance p–i–n perovskite photodetectors and image sensors with long-term operational stability enabled by a corrosion-resistant titanium nitride back electrode

Tian Sun, Tong Chen, Jiahao Chen, Qiang Lou, Zihao Liang, Guijun Li,* Xiaoyun Lin, Guoshen Yang and Hang Zhou*



RETRACTION

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Retraction: An MSN-PEG-IP drug delivery system and IL13R α 2 as targeted therapy for glioma

Jinlong Shi, Shiqiang Hou, Jianfei Huang, Shanshan Wang, Wei Huan, Chuanjun Huang, Xiaojiang Liu, Rui Jiang, Wenbo Qian, Jingjing Lu, Xiubing Wang, Wei Shi,* Rongqin Huang* and Jian Chen*

