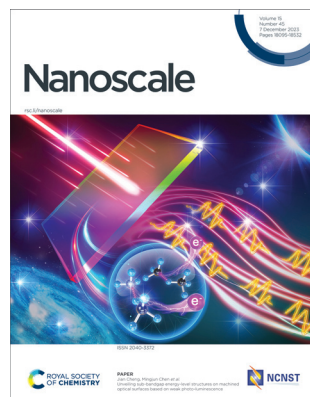


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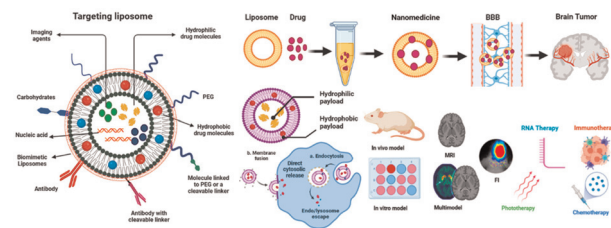
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A state-of-the-art liposome technology for glioblastoma treatment

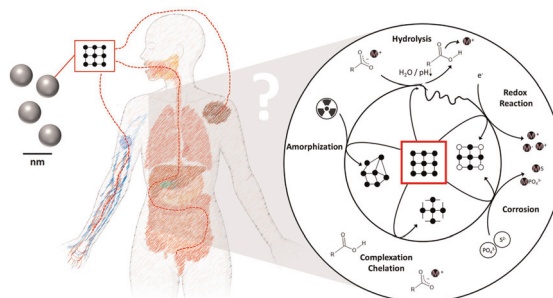
Ikram Hasan, Shubham Roy, Ehexige Ehexige,
Runling Wu, Yu Chen, Zhengyuan Gao, Bing Guo* and
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Biochemical transformations of inorganic nanomedicines in buffers, cell cultures and organisms

Anna L. Neuer, Inge K. Herrmann and
Alexander Gogos*



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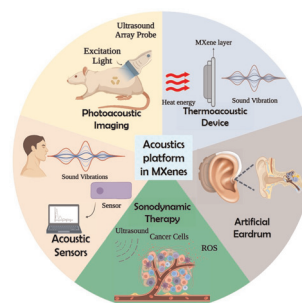


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Acoustic platforms meet MXenes – a new paradigm shift in the palette of biomedical applications

Bartholomew Richard, C. Shahana, Raju Vivek, Amarendar Reddy M. and P. Abdul Rasheed*

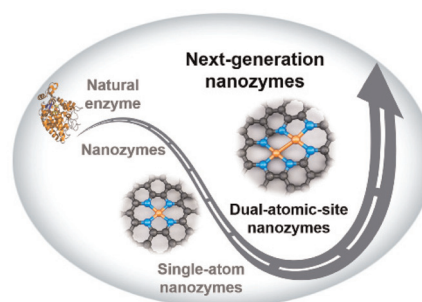


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An emerging direction for nanozyme design: from single-atom to dual-atomic-site catalysts

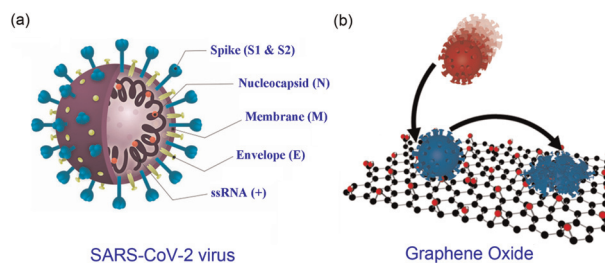
Ying Wang, Yong Wang, Lawrence Yoon Suk Lee* and Kwok-Yin Wong*



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Graphene-based biosensors for detecting coronavirus: a brief review

Filimon Hadish Abrha,* Tadele Hunde Wondimu, Mebrahtu Hagos Kahsay, Fetene Fufa Bakare, Dinsefa Mensur Andoshe and Jung Yong Kim*

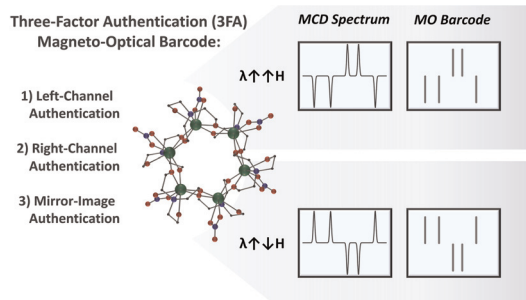


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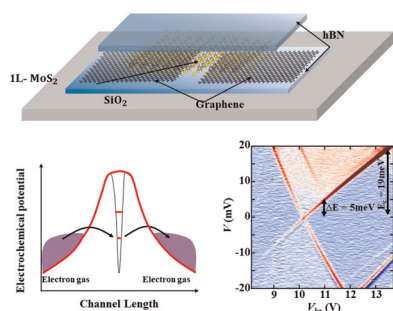
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Dual-signalled magneto-optical barcodes with lanthanide-based molecular cluster-aggregates

Diogo Alves Gálico and Muralee Murugesu*



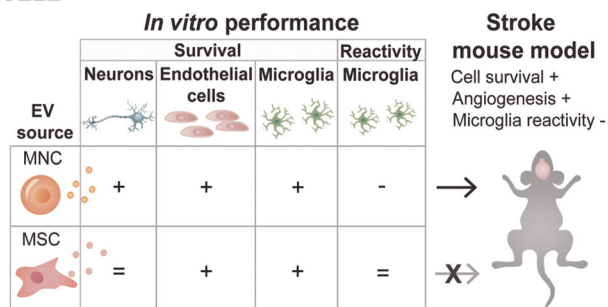
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Excited state spectroscopy and spin splitting in single layer MoS₂ quantum dots

P. Kumar, H. Kim, S. Tripathy, K. Watanabe, T. Taniguchi, K. S. Novoselov* and D. Kotekar-Patil*

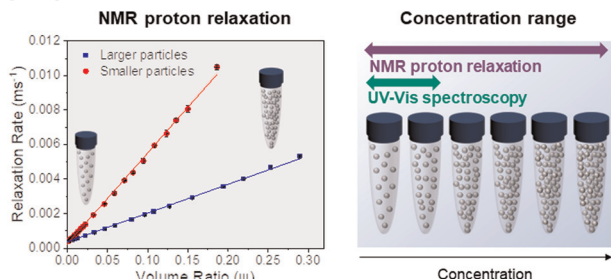
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Small extracellular vesicles administered directly in the brain promote neuroprotection and decreased microglia reactivity in a stroke mouse model

Miguel M. Lino, Tiago Rondão, Arnab Banerjee, Inês Aires, Magda Rodrigues, Tiago Reis, António Santinha, Dominique Fernandes, Débora Serrenho, Tomás Sobrino, João Sargento-Freitas, Frederico C. Pereira, Ana Luisa Carvalho and Lino Ferreira*

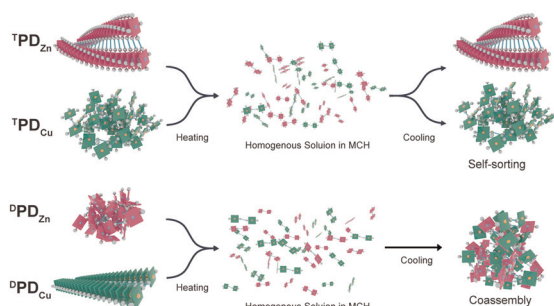
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NMR proton relaxation for measuring the relative concentration of nanoparticles in liquids

Fahmida Khanom Rahman, Keith R. Paton, Beth Hinchliffe, Caterina Minelli, Andrew J. Pollard and Sofia Marchesini*

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Recognition of atomic-level difference in porphyrin dyads for self-sorted supramolecular polymer growth

Hosoowi Lee, Minhyeong Lee, Jun Ho Hwang, Inhye Kim, Eunji Lee* and Woo-Dong Jang*

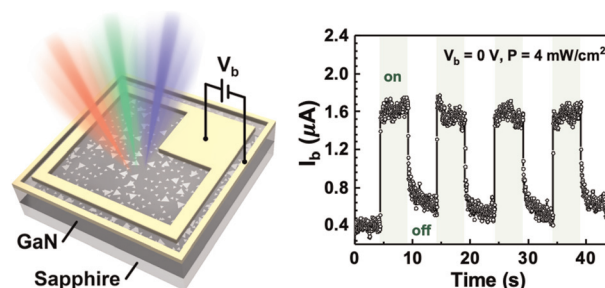


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Self-powered broadband photodetection enabled by facile CVD-grown MoS_2/GaN heterostructures

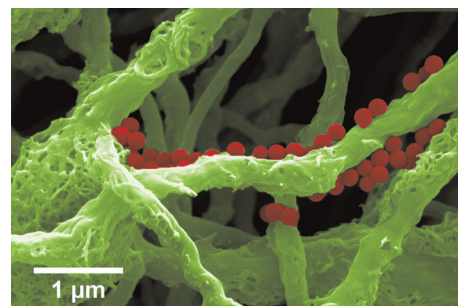
Bor-Wei Liang, Wen-Hao Chang, Chun-Sheng Huang, You-Jia Huang, Jyun-Hong Chen, Kai-Shin Li, Kristan Bryan Simbulan, Harshvardhan Kumar, Ching-Yuan Su, Chieh-Hsiung Kuan and Yann-Wen Lan*



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An electrospun nanofiber mat as an electrode for AC-dielectrophoretic trapping of nanoparticles

Tonoy K. Mondal, J. Hunter West and Stuart J. Williams*

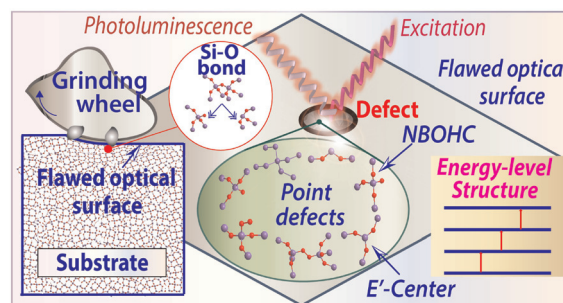


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Unveiling sub-bandgap energy-level structures on machined optical surfaces based on weak photo-luminescence

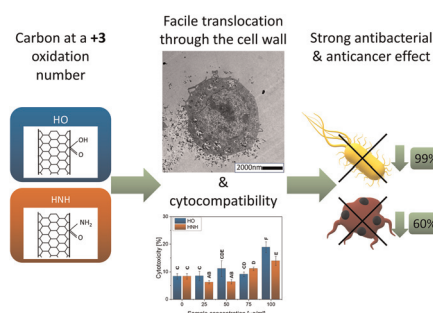
Dinghuai Yang, Linjie Zhao, Jian Cheng,* Mingjun Chen,* Henan Liu, Jinghe Wang, Chengshun Han and Yazhou Sun



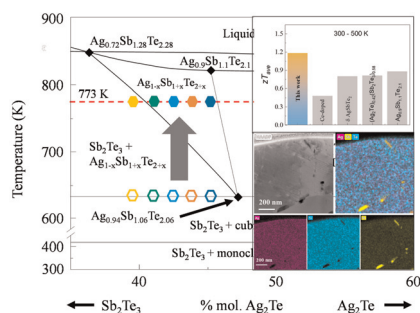
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Anticancer and antibacterial properties of carbon nanotubes are governed by their functional groups

Aleksandra Benko,* David Medina-Cruz, Sebastian Wilk, Magdalena Ziabka, Barbara Zagrajczuk, Elżbieta Menaszek, Olga Barczyk-Woźnicka, Grégory Guisbiers and Thomas J. Webster



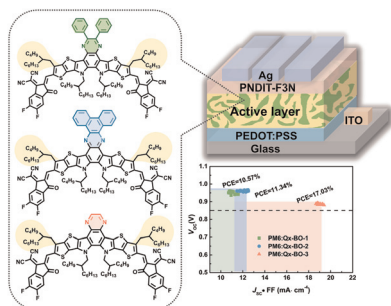
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Suppressing Ag_2Te nanoprecipitates for enhancing thermoelectric efficiency of AgSbTe_2

Zichen Gong, Kivanc Saglik, Jing Wu, Ady Suwardi and Jing Cao*

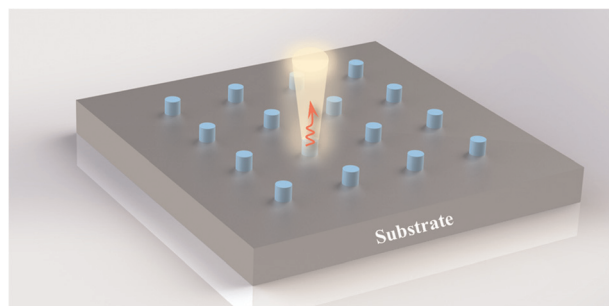
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The central core size effect in quinoxaline-based non-fullerene acceptors for high V_{OC} organic solar cells

Xinya Ran, Yanan Shi, Dingding Qiu, Jianqi Zhang, Kun Lu* and Zhixiang Wei

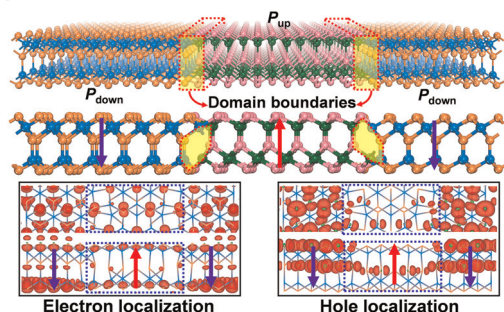
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Highly sensitive plasmonic sensing based on a topological insulator nanoparticle

Dikun Li, Hua Lu,* Shouhao Shi and Jianlin Zhao

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Domain nucleation kinetics and polarization-texture-dependent electronic properties in two-dimensional $\alpha\text{-In}_2\text{Se}_3$ ferroelectrics

Yanan Lu, Liqin Su, Linghui Fang, Qingyuan Luo, Meiyong Gong, Dan Cao, Xiaoshuang Chen, Xiaowen Shi and Haibo Shu*

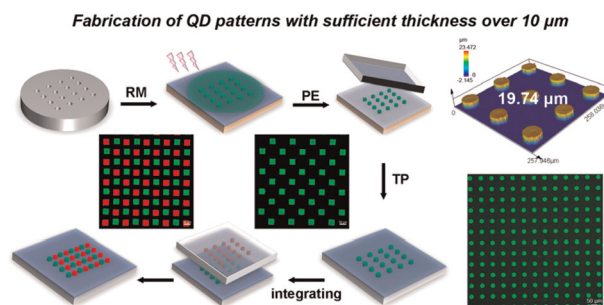


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Wafer-scale patterning of high-resolution quantum dot films with a thickness over 10 μm for improved color conversion

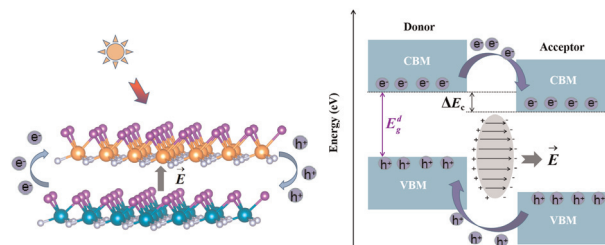
Shenghan Zou, Yuzhi Li and Zheng Gong*



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Highly-efficient heterojunction solar cells based on 2D Janus transition-metal nitride halide (TNH) monolayers with ultrahigh carrier mobility

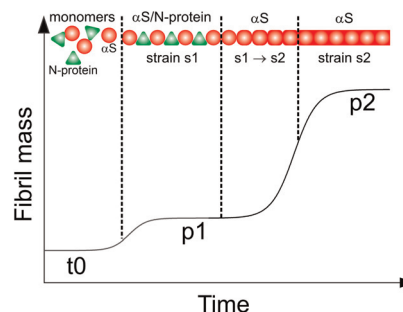
Wanying Xie, Jiafei Pang, Jinni Yang, Xiaoyu Kuang* and Aijie Mao*



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SARS-CoV-2 N-protein induces the formation of composite α -synuclein/N-protein fibrils that transform into a strain of α -synuclein fibrils

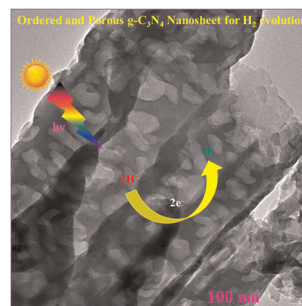
Slav A. Semerdzhiev, Ine Segers-Nolten, Paul van der Schoot, Christian Blum* and Mireille M. A. E. Claessens*



18347

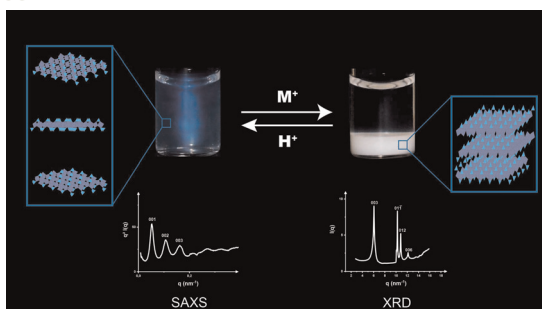
Ordered and carbon-doped porous polymeric graphitic carbon nitride nanosheets toward enhanced visible light absorption and efficient photocatalytic H_2 evolution

Rama Krishna Chava* and Misook Kang*



PAPERS

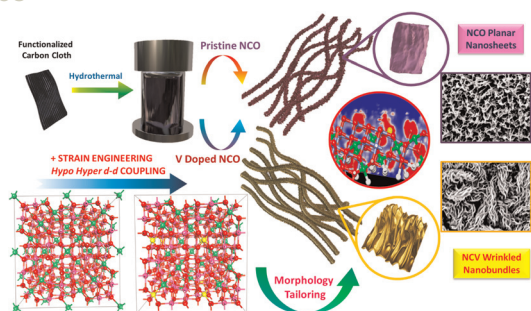
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Crystalline restacking of 2D-materials from their nanosheets suspensions

Lina Cherni, Karin El Rifaii, Henricus H. Wensink,*
Sarah M. Chevrier, Claire Goldmann, Laurent J. Michot,
Patrick Davidson* and Jean-Christophe P. Gabriel*

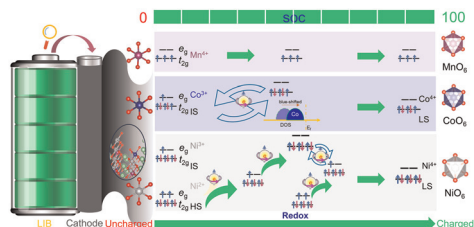
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Lattice strain induced d-band centre engineering enabled pseudocapacitive energy storage in 2D hypo-hyper electronic V-NiCo₂O₄ for asymmetric supercapacitors

Soumyajit Maitra, Krishnendu Roy, Dibyendu Ghosh and
Praveen Kumar*

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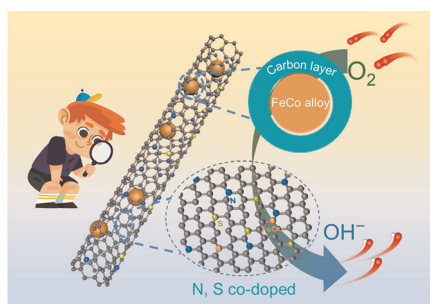


- Mn does not participate in the redox reaction
- Intermediate-spin (IS) Co³⁺ also participates in the reduction reaction and is oxidized to low-spin (LS) Co⁴⁺
- High-spin (HS) Ni²⁺ participates in the reduction reaction as the main substance and is eventually oxidized to low-spin (LS) Ni⁴⁺

Quasi-dynamic study of electrochemical properties of O3-high-Ni ternary single-crystal cathode materials with mirror symmetry: a first-principles study

Naigen Zhou, Yazhou Wang* and Hong Cui*

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Structural design of FeCo alloy implanted into N,S co-doped carbon nanotubes via self-catalyzed growth for advanced liquid and flexible all-state-state Zn-air battery

Kun Wang, Liyuan Wang, Jinrui Huang, Ye Chen,
Xupo Liu, Tianfang Yang, Gangya Wei and Shuyan Gao*

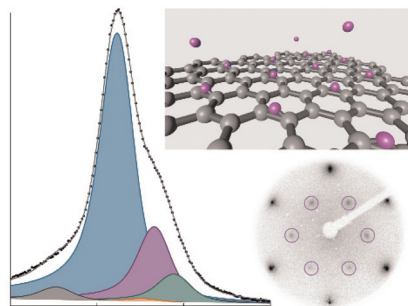


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From borophene polymorphs towards a single honeycomb borophane phase: reduction of hexagonal boron layers on Al(111)

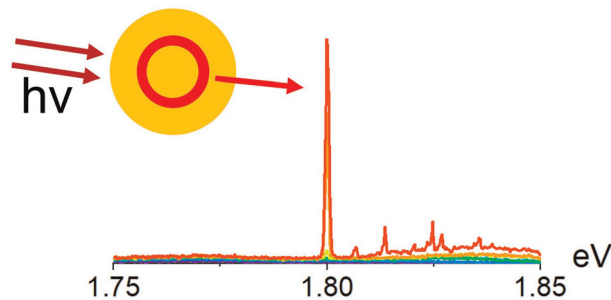
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Large two-photon cross sections and low-threshold multiphoton lasing of CdS/CdSe/CdS quantum shells

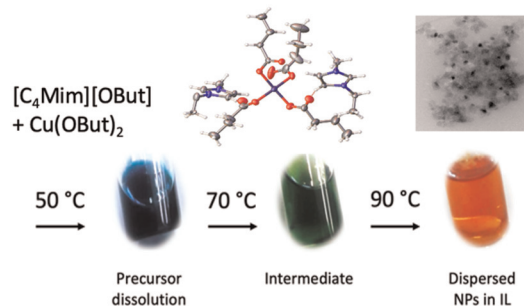
Benjamin T. Diroll,* James P. Cassidy, Dulanjan Harankahage, Muchuan Hua, Xiao-Min Lin and Mikhail Zamkov



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Tuneable-by-design copper oxide nanoparticles in ionic liquid nanofluids

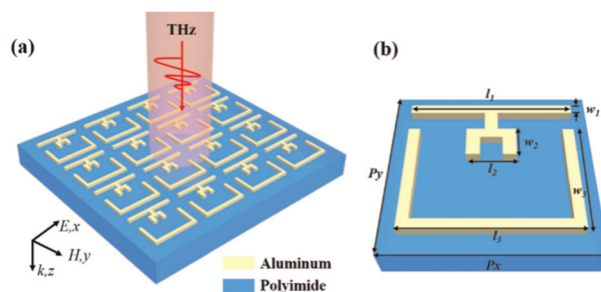
Claire Boudie, Manuel Maréchal, Guillaume Ah-Lung, Johan Jacquemin and Peter Nockemann*



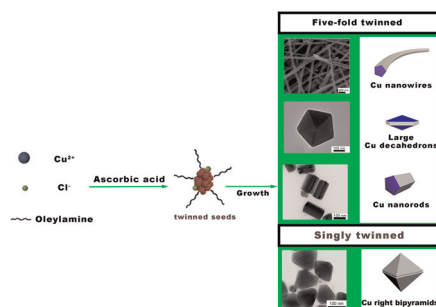
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Design and experimental realization of triple-band electromagnetically induced transparency terahertz metamaterials employing two big-bright modes for sensing applications

Ben-Xin Wang,* Guiyuan Duan, Wangze Lv, Yi Tao, Han Xiong, Dong-Qin Zhang, Guofeng Yang* and Fang-Zhou Shu*



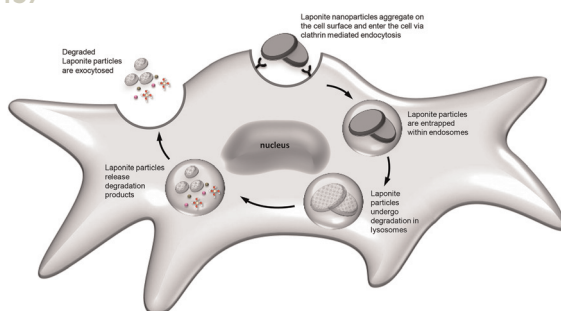
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Seedless wet synthesis of copper-twinned nanocrystals

Sheng Zhang, Junheng Gao, Fu Tang,* Jie Wang, Chuang Yao and Lidong Li*

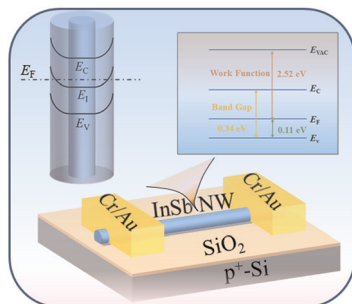
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Tracking cellular uptake, intracellular trafficking and fate of nanoclay particles in human bone marrow stromal cells

Mohamed Mousa, Yang-Hee Kim, Nicholas D. Evans, Richard O. C. Oreffo and Jonathan I. Dawson*

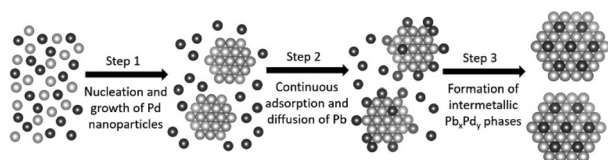
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Surface band bending caused by native oxides on solution-processed twinned InSb nanowires with p-type conductivity

Rui Xu, Kaijia Xu, Yingzhi Sun, Yan Wen, Lanjun Cheng, Feng-cui Shen* and Yinyin Qian*

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Unveiling the formation mechanism of Pb_xPd_y intermetallic phases in solvothermal synthesis using *in situ* X-ray total scattering

Anders Bæk Borup, Andreas Dueholm Bertelsen, Magnus Kløve, Rasmus Stubkjær Christensen, Nils Lau Nyborg Broge, Ann-Christin Dippel, Mads Ry Vogel Jørgensen and Bo Brummerstedt Iversen*

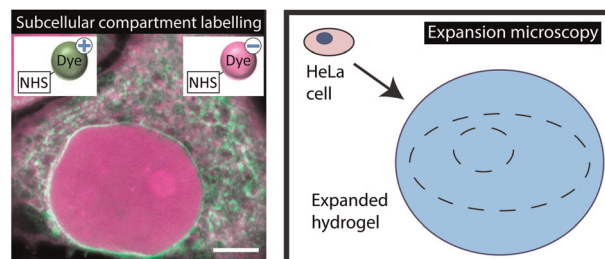


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Differential labelling of human sub-cellular compartments with fluorescent dye esters and expansion microscopy

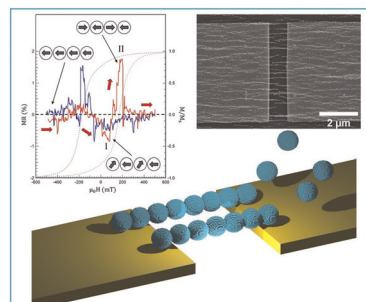
Thomas M. D. Sheard,* Tayla B. Shakespeare, Rajpinder S. Seehra, Michael E. Spencer, Kin M. Suen and Izzy Jayasinghe*



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Template-free generation and integration of functional 1D magnetic nanostructures

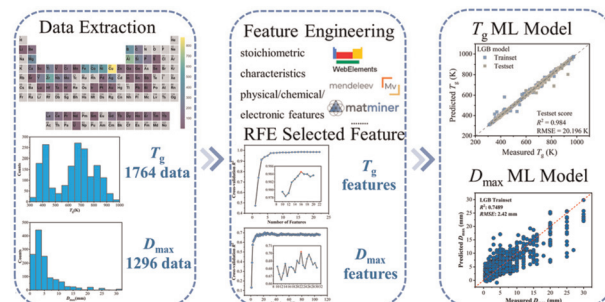
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Data-driven machine learning prediction of glass transition temperature and the glass-forming ability of metallic glasses

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Sn-doped ZnO for efficient and stable quantum dot light-emitting diodes via a microchannel synthesis strategy

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