Nano Letters

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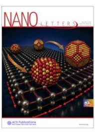

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Volume 26, Issue 43

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A flexible support imposes strain on anchored NiPt nanoparticles, revealing a structure-dependent response: chemical ordering is modified in icosahedral nanoparticles while truncated-octahedral structures remain comparatively robust.

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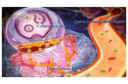

Glycosaminoglycan-Based CD44-Targeted Nanoparticles for Cancer Therapy: Biological Barriers and Barrier-Informed Design Strategies

Shangyu Chen; Sheida Dabiri; Yichen Xu; Song Li

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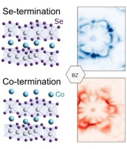

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Nano Lett. (2026) 26 (43): 14813–14820.

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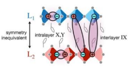

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Patrick Grenzer; Fabian Lie; Klaus H. Eckstein; Tobias Hertel; Linn Leppert

Nano Lett. (2026) 26 (43): 14821–14828.

https://doi.org/10.1021/acs.nanolett.6c01957

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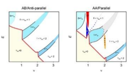

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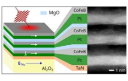

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https://doi.org/10.1021/acs.nanolett.6c02697

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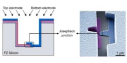

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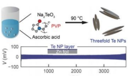

Threefold-Symmetric Te Nanoparticles for Stabilizing Zinc Metal Anodes

Jiawei Su; ChangChun Fan; Zhuoyuan Li; Weiguang Lan; Guoming Lin; Wenhui Wang; Mingjie Liu

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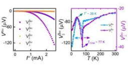

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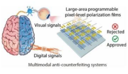
Large-area programmable pixel-level polarization films
Visual signals
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Pixelated Tellurium Nanowire Assemblies for Flexible and Polarization-Driven Multimodal Anticounterfeiting

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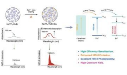

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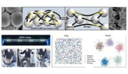

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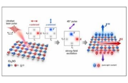

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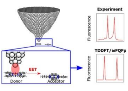

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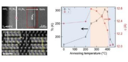

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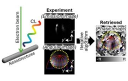

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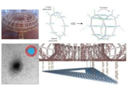

A Rotary DNA Mazzocchio Nanostructure

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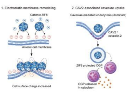
1. Electrostatic membrane remodeling
Cationic ZIF8
Anionic cell membrane
Cell surface charge increased
2. CAV2-associated caveolae uptake
Caveolae-mediated endocytosis (dominate)
CAV2 / caveolin-2
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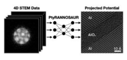

PtyRANNOSAUR: Ptychography with Robust Artificial Neural Networks Optimized for Subangstrom Accuracy and Ultrafast Reconstruction

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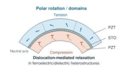
Polar rotation / domains
Tension
PZT
STO
PZT
Neutral axis
Compression
Dislocation-mediated relaxation
in ferroelectric/dielectric heterostructures

Curvature-Controlled Polar–Dislocation Coupling in Freestanding Ferroelectric Oxide Heterostructures

Jianwei Liang; Yi Huang; Gangchang Li; Congbing Tan; Wenpeng Zhu; Yi Zhang; Yue Zheng

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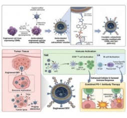

Click Chemistry-Mediated Functionalization of Engineered Oncolytic Extracellular Vesicles Promotes Coordinated T- and B-Cell Antitumor Immunity

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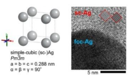

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https://doi.org/10.1021/acs.nanolett.6c03635

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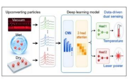

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Óscar Pérez-Benito; J. Ignacio Echavarría; Javier Hernandez-Rueda

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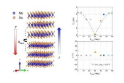

Decoupling Josephson Coupling and Supercurrent Nonreciprocity in Twisted $NbSe_2/NbSe_2$ van der Waals Junctions

Seung-Gi Lee; Kwon-Neong Jung; Jae-Keun Kim; Jae-Chun Jeon; Jiho Yoon; Stuart S. P. Parkin; Kun-Rok Jeon

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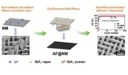

Engineering a Dynamic Alloy–Fluoride Interface via a Co-Placement Gas-Phase Strategy for Stable Lithium Metal Anodes

Siyi Hu; Saisai Li; Jiawen Xiao; Changbo Yu; Ning Li; Jidong Cao; Hao Luo; Dawei Zhang

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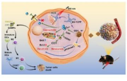
A Golgi-Targeted Cu-MOF Nanoplatform Overcomes ATP7B-Mediated Copper Efflux to Amplify Chemo–Cuproptosis Synergy against Colorectal Cancer



Mengyuan He; Aixue Li; Rongchen Mao; Lingtao Kong; Xuejun Wang; Xiaoli Cheng; Gou Wu; Wenxin Zhang; Fengna Li; Dan Li; Yongwei Gu; Tao Sun; Jiyong Liu

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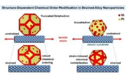
Structure-Dependent Chemical Order Modification in Strained Alloy Nanoparticles



Yue Wang; Zibo Chen; Evropi Toulkeridou; Joseph Kioseoglou; Panagiotis Grammatikopoulos

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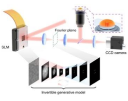
Physics-Consistent Generative Hologram Design for Multifocal Femtosecond Laser Fabrication



Bowen Chen; Hao Wu; Xiaoxu Rao; Wenji Yang; Zeye Li; Jincheng Ni; Jiawen Li; Dong Wu; Yanlei Hu; Chaowei Wang

Nano Lett. (2026) 26 (43): 15030–15038.

https://doi.org/10.1021/acs.nanolett.6c03779

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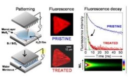
Toward Two-Dimensional MoS_2 Electrets with Modulated Fluorescence



Eugenio Lunedei; Andrea Liscio; Francesco Borgatti; Edoardo Chini; Pasquale D'Angelo; Fiorenza Esposito; Niccolò Borghi; Matteo Mannini; Denis Gentili; Luca Seravalli; Massimiliano Cavallini

Nano Lett. (2026) 26 (43): 15039–15046.

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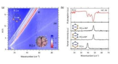
Revealing Intrinsic Anisotropy of Collective Magnetic Excitations in Twinned Crystals of a Kitaev–Heisenberg Quantum Magnet



Naipeng Zhang; Nikolai V. Simonov; Mykhaylo Ozerov; Sumedh Rathi; Nolan J. Heffner; Sara Huszar; Long Chen; Haidong Zhou; Guangxin Ni; Chaebin Kim; Martin Mourigal; Stephen M. Winter; Zhigang Jiang; Dmitry Smirnov

Nano Lett. (2026) 26 (43): 15047–15053.

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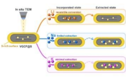
In Situ Mechanistic Insights into the Divergent Electrochemical Behaviors of Li, Na, and K in Metal Sulfur Batteries



Xinting Cao; Guoquan Sun; Ze Hua; Lei Zhou; Peifeng Gao; Li Yan; Lixia Bao; Xiaoxue Chang; Leining Zhang; Guoqiang Tan; Lihua Wang; Xintao Zuo; Ruiwen Shao

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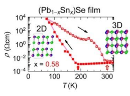
Giant Resistance Switching Ratio Exceeding 10^6 through a Reversible 2D–3D Structural Phase Transition in Nonequilibrium $(Pb_{1-x}Sn_x)Se$ Thin Films



Naoto Hoshi; Sota Abe; Sangjin Choi; Kota Hanzawa; Hiroto Arima; Jun-ichi Yamaura; Shogo Hatayama; Hidenori Hiramatsu; Toshio Kamiya; Takayoshi Katase

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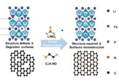
Direct Restoration of Spent $LiFePO_4$ via Lattice Defect Correction and Nitrogen-Doped Interface Engineering



Xutao Liang; Yang Gao; Jiping Ma; Ran Wang; Zelin Lv; Xiaoxiao Li; Yongle Yan; Lifeng Hou; Shi Wang; Zhong Jin; Qian Wang

Nano Lett. (2026) 26 (43): 15070–15079.

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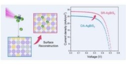
Photoinduced Surface Reconstruction Strategy for Enhancing $AgBiS_2$ Quantum Dot Solar Cells



Qixuan Zhong; Ruchao Gong; Junxiao Zhang; Lei Xu; Jingzhi Shang; Shuguang Wang; Muhan Cao; Jinxing Chen; Lichen Zhao; Qiao Zhang; Jianpu Wang

Nano Lett. (2026) 26 (43): 15080–15087.

https://doi.org/10.1021/acs.nanolett.6c03987

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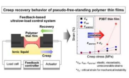
Unveiling the Creep Recovery Behavior of Pseudo-Free-Standing Polymer Thin Films for Wearable Electronics



Eun Sung Oh; Dong Jun Kim; Won Choi; Taek-Soo Kim

Nano Lett. (2026) 26 (43): 15088–15096.

https://doi.org/10.1021/acs.nanolett.6c04011

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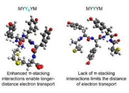
Role of Stereochemistry on Electron Transport in Peptides


Enhanced π-stacking interactions enable longer-distance electron transport
Lack of π-stacking interactions limits the distance of electron transport

Rajarshi Samajdar; Hemani Chhabra; Moeen Meigooni; Seungjoo Yi; Xiaolin Liu; Jason L. Wu; Emad Tajkhorshid; Charles M. Schroeder

Nano Lett. (2026) 26 (43): 15097–15105.

https://doi.org/10.1021/acs.nanolett.6c04036

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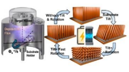
From Dense to Nanostructured Thin Film Anodes: Boosting Li-Ion Accessibility in TiO_2 Thin Film Electrodes



Ravikant Adalati; Jerome Muller; Pavel Moskovkin; Abdel Ghafour El Hachimi; Stephane Lucas; Suyog Asaram Raut; Thi Thao Nguyen; Aline Roobroeck; Xavier Noirfalise; Marie-Georges Olivier; Stephanos Konstantinidis

Nano Lett. (2026) 26 (43): 15106–15114.

https://doi.org/10.1021/acs.nanolett.6c04067

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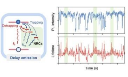
Correlating Delayed Emission, Blinking Mechanism, and the Quantum-Confined Stark Effect in Single Quantum Dots



Jialu Li; Xue Han; Changgang Yang; Mi Zhang; Zhihao Chen; Chuang Wang; Zhuang Ying; Jinhui Wang; Ruiyun Chen; Chengbing Qin; Jianyong Hu; Zhichun Yang; Jie Ma; Guofeng Zhang; Liantuan Xiao; Suotang Jia

Nano Lett. (2026) 26 (43): 15115–15123.

https://doi.org/10.1021/acs.nanolett.6c04088

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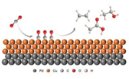
Unraveling the Effect of Tensile Strain on Electrochemical CO_2 Reduction



Qing Yuan; Chengdi Huang; Xuan Yang

Nano Lett. (2026) 26 (43): 15124–15130.

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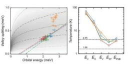
Confinement Drives Valley Splitting above 4 K in Buried Silicon Quantum Wells



Davide Degli Esposti; Emma C. Brann; Asser Elsayed; Davide Costa; Mark Friesen; Giordano Scappucci

Nano Lett. (2026) 26 (43): 15131–15139.

https://doi.org/10.1021/acs.nanolett.6c04172

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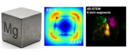
Squaring the Hexagon: Multiply Twinned Plasmonic Magnesium Nanocubes



Christina Boukouvala; Andrey Ten; Vladimir Lomonosov; Emilie Ringe

Nano Lett. (2026) 26 (43): 15140–15145.

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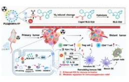
X-ray-Triggered Nanoadjuvant Enabling Spatiotemporal Immunometabolic Modulation for Pyroptosis-Enhanced Radiotherapy



Wenjun Liu; Yushi Chen; Yanmin Xiao; Jin Gao; Shanwen Hu; Lanlan Chen; Jibin Song; Huanghao Yang

Nano Lett. (2026) 26 (43): 15146–15158.

https://doi.org/10.1021/acs.nanolett.6c04189

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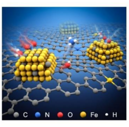
Breaking the Activity–Stability Trade-Off in Electrochemical NO_2^- Reduction to NH_3 over a Robust Fe_3C/CN Catalyst



Xue-Feng Sun; Zhe Meng; Guo-Feng Qiu; Hai-Xia Zhong; Dong-Xue Liu; Quan-Qing Li; Pei-Yu Zang; Jun-Min Yan

Nano Lett. (2026) 26 (43): 15159–15169.

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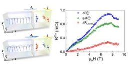
Unidirectional Magnetoresistance Driven by Nonequilibrium Antiferromagnetic Magnons



Xue He; Hans Gløckner Giil; Caiqiong Xu; Jicheng Wang; Arne Brataas; Jinbo Yang; Yanglong Hou; Zhaochu Luo; Rui Wu; Shilei Ding

Nano Lett. (2026) 26 (43): 15170–15176.

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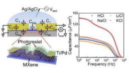
Direct Experimental Quantification of Intrinsic Capacitive Properties of Monolayer $Ti_3C_2T_x$ MXene



Minghao Xu; Qingfeng Wu; Sixing Xu; Xiaohong Wang

Nano Lett. (2026) 26 (43): 15177–15184.

https://doi.org/10.1021/acs.nanolett.6c04313

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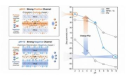
Mica–Polyethylenimine Membranes for High-Efficiency pH-Responsive Nanofiltration Enabled by a Strongly Coupled Charge Flip



Mingbo Xie; Huacun Li; Yeqiu Zhao; Jingjing Deng; Jinkang Liu; Xu Yan; Qingwei Wang; Meiqing Shi; Liyuan Chai; Gao-Feng Han; Liyuan Zhang; Jong-Beom Baek

Nano Lett. (2026) 26 (43): 15185–15195.

https://doi.org/10.1021/acs.nanolett.6c04374

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Additions and Corrections

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Correction to "Nanoconfined Polymer Dot Reactors for Ultrasensitive Monitoring of Diverse Metabolites and Point-of-Care Diagnosis"

Yijun Liu; Peng Zhou; Zitong Yang; Yuxin Yao; Haoyu Gong; Yonghong Wu; Peixiang Li; Qin Shentu; Lubin Qi; Zongping Wang; Yating Xiao; Yifei Jiang; Xiaohong Fang

Nano Lett. (2026) 26 (43): 15196–15201.

https://doi.org/10.1021/acs.nanolett.6c04870

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