

WMINST Bylines (2001 – Present)

Inverted Device Engineering for Efficient and Bright Quantum Rod LEDs

Liao ZB, Prodanov MF, Kumar M, Sergeev AA, Song JX, Kang CB, Bhadra D, Wong KS, Underwood I, Srivastava AK

ADVANCED MATERIALS DOI10.1002/adma.202504559 AUG 2025

Structure and Photophysical Properties of Cubic-Shaped Cadmium(II)-Doped CsPbBr₃ Perovskite Nanocrystals

Sokolova A, Sergeev AA, Fan KZ, Wong KS, Rogach AL,

SMALL DOI10.1002/sml.202505326 AUG 2025

Engineering Carrier Thermalization, Relaxation, and Funneling in Mixed 3D/Quasi-2D CsPbI₃ Perovskite Nanocrystals

Fan KZ, Liu HC, Pan TC, Wu Y, Hai YL, Vighnesh K, Sergeev AA, Wu JY, Rogach AL, Wong KS

ACS NANO Volume19(30) 27552-27562 AUG 5 2025

Desorption Dynamics of Polymer Adsorbed Layers

Yuan HL, Nie HR, Ma ZY, Weng LT, Tsui OKC,

ACS MACRO LETTERS DOI10.1021/acsmacrolett.5c00333 JUL 2025

Regulating the Polysulfide Behavior by a Large-Scale Two-Dimensional Superlattice Interface in Li-S Chemistry

Ding CZ, Ding Y, Wang K, Zheng ZB, Liu F, Guo XY, Tamtaji M, Luo ZT,

ACS NANO 19(29) 26818-26830 JUL 29 2025

Precise Modulation of Reorganization Energy through Methyl Substitution for High Performance Organic
Chen L, Zhao CY, Lai JYL, Zhou RK, Sergeev A, Wong KS, Hu HW, Zheng ZL, Yu H, Pun SH, Zhang GY, Yan H

ADVANCED SCIENCE DOI10.1002/advs.202505143 JUL 2025

A Strategy for Transition Metal Chalcogenide Synthesis Using Sequential Selenium Substitution

Wang J, Hu YX, Liu HW, Li YY, You JW, Li YX, Tang TW, Liu ZJ, Amjadian M, Ding Y, An L, Luo ZT

NANO LETTERS DOI10.1021/acs.nanolett.5c01660 JUN 2025

Triple-Cue-Guided Multichannel Hydrogel Conduit to Synergistically Enhance Peripheral Nerve Repair

Cai YT, Wang PH, Li YX, Tang TW, Zhang LJ, Shu HX, Wong HL, Li YY, Li JW, Arias,AC, Zhang CG, Jin GR, Huang Q, Luo ZT

ACS NANO 19(24) 22163-22178 JUN 13 2025

Suppressing the Interface Photodegradation towards Efficient and Stable All Perovskite Tandem Solar Cells

WMINST Bylines (2001 – Present)

Lin ZJ, Chen JW, Fan KZ, Yi JC, Chen HG, Zou SB, Min HY, Xu YT, Lam MY, Aleksandr SA, Wong KS, Yan H, Yan, KY

ANGEWANDTE CHEMIE-INTERNATIONAL EDITION DOI10.1002/anie.202424825 JUN 2025

Slow onset of self-sustained oscillations in a fluctuating sideband-driven electromechanical resonator

Zhang B, Chan PY, Dong X, Sun F, Chan HB

SCIENTIFIC REPORTS 15(1) 18965 MAY 30 2025

Crosslinked Conjugated Interlayer Network for Efficient and Stable Wide-Bandgap Perovskite and All-Perovskite Tandem Solar Cells

Chen JW, Lin ZJ, Min HY, Fan KZ, Chen HG, Zou SB, Xu YT, Wu X, Yin PG, Chen HN, Guo L, Lu XH, Lam MY, Aleksandr SA, Wong KS, Yan KY

ADVANCED ENERGY MATERIALS DOI10.1002/aenm.202500309 MAY 2025

In-Situ Study of Photo-Rechargeable Aqueous Zinc-Ion Batteries with the Bifunctional α -MnO₂ Photoelectrodes

Zheng ZB, Ding CZ, Hasan MS, Wang K, Liu Y, Yang W, Cheng JZ, Luo ZT, Cao SW, Ding Y

ADVANCED FUNCTIONAL MATERIALS DOI10.1002/adfm.202500182 MAY 2025

Frequency-Selective Terahertz Wave Amplification by a Time Boundary in Huygens' Metasurface

Deng F, Zhu FJ, Zhou XY, Chan Y, Wu JB, Zhang CH, Jin BB, Li JS, Fan KB, Zhang JD

ADVANCED OPTICAL MATERIALS 13(13) MAY 2025

Next-Generation Image Sensors Based on Low-Dimensional Semiconductor Materials

Hu YX, Gao ZL, Luo ZT, An L

ADVANCED MATERIALS 37(26) JUL 2025

Blade-Coating with Engineered Evaporation Kinetics Enables Scalable Perovskite Photovoltaics with Minimal Efficiency Loss

Guo H, Yuan LG, Dong YY, Fan KZ, Lam MY, Duan CH, Zou SB, Wong KS, Yan KY

SMALL METHODS DOI10.1002/smtd.202500141 APR 2025

A high-throughput experimentation platform for data-driven discovery in electrochemistry

Lin DZ, Pan KJ, Li YY, Zhang LY, Jayarapu KN, Li TC, Tran JV, Goddard WA, Luo ZT, Liu YY

SCIENCE ADVANCES 11(14) eadu4391 APR 4 2025

Rational design of micro-cone array on copper host for dendrite-free sodium metal plating

Xu MY, Gao CW, Tang TW, Zhang LL, You JW, Zhou X, Xu MJ, Kim JK, Luo ZT

CHEMICAL ENGINEERING JOURNAL 510 161679 APR 15 2025

WMINST Bylines (2001 – Present)

Unveiling the Curvature-Dependent Electrocatalytic Kinetics for Sulfur Redox Reaction in Li-S Chemistry

Wang K, Wang Y, Wang J, Wang H, Ding CZ, Zheng ZB, Liu Y, Luo ZT, Ding Y

ADVANCED FUNCTIONAL MATERIALS 35(26) JUN 2025

Photoluminescence and Stability of Dion-Jacobson Tin-Based Halide Perovskites with Different Spacer Cation Chain Length

Ali MU, Sun WT, Sergeev AA, Rehman AU, Wong KS, Djuricic AB, Popovic J

MOLECULES 30(3) 703 FEB 2025

Coplanar Dimeric Acceptors with Bathochromic Absorption and Torsion-Free Backbones through Precise Fluorination Enabling Efficient Organic Photovoltaics with 18.63% Efficiency

Liu W, Wu WW, Sergeev AA, Yao J, Fu Y, Kwok CH, Ng HM, Li CL, Li XJ, Pun SH, Hu HW, Lu XH, Wong KS, Li YF, Yan H, Yu H

ADVANCED SCIENCE 12(10) MAR 2025

Phase Modulation on Low-Dimensional Perovskite for High Performance Blue Light Emitting Diodes

Wang KY, Zou SB, Fan KZ, Zhang Z, Li J, Chen HG, Zou FL, Wong KS, Xu JB, Yan KY

ADVANCED OPTICAL MATERIALS 13(7) MAR 2025

2D Materials-Based Field-Effect Transistor Biosensors for Healthcare

Li JW, Wijaya LNA, Jang DW, Hu YX, You JW, Cai YT, Gao ZL, Mi YL, Luo ZT

SMALL 21(15) 2408961 APR 2025

Rapid, Controlled Branching Polymerization of Cyanoacrylate via Pathway-Enabled, Site-Specific Branching Initiation

Roxas AP, Yu H, Tamtaji M, Yang ZG, Luo ZT

MACROMOLECULAR RAPID COMMUNICATIONS 46(2) JAN 2025

Large-area single-crystal indium phosphide laterally grown on patterned silicon-on-insulator

Li J, Xue Y, Xu K, Xing ZS, Wong KS, Lau KM

APL MATERIALS 12(11) 111101 NOV 1 2024

Robust Plasma-Assisted Growth of 2D Janus Transition Metal Dichalcogenides and Their Enhanced Photoluminescent Properties

Zhu Q, Chen EZ, Fan KZ, Tang JH, Zhan RZ, Wong KS, Chen ZF, Wan X, Chen K

SMALL METHODS 9(4) APR 2025

Mixed equilibrium/non-equilibrium effects govern surface mobility in polymer glasses

Xu JQ, Ghanekarade A, Li L, Zhu HF, Yuan HL, Yan JS, Simmons DS, Tsui OKC, Wang XP

WMINST Bylines (2001 – Present)

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
AMERICA 121(41) e2406262121 OCT 3 2024

Frequency stabilization of self-sustained oscillations in a sideband-driven electromechanical resonator

Zhang B, Yan YM, Dong X, Dykman MI, Chan HB

PHYSICAL REVIEW APPLIED 22(3) 034072 SEP 30 2024

Substrate influence on the surface glass transition temperature of polymers

Ma ZY, Nie HR, Tsui OKC

POLYMER 312 127594 OCT 24 2024

Intra-family transformation of the Bi-Te family via in situ chemical interactions

He ZH, Ho TSM, Ma C, Wang JN, Lortz R, Sou IK

APL MATERIALS 12(9) 091106 SEP 1 2024

Experimental Demonstration of Collective Photonic Nanojet Generated by Densely Packed Arrays of
Dielectric Microstructures

Lam MY, Sergeeva KA, Tutov MV, Zhizhchenko AY, Cherepakhin AB, Mironenko AY, Sergeev AA, Wong
KS

ADVANCED OPTICAL MATERIALS 12(31) NOV 2024

GaAs Microdisk Lasers with Al₂O₃ Passivation Selectively Grown on SOI

Lin Q, Huang J, Xue Y, Lin LY, Xing ZS, Wong KS, Lau KM

ACS PHOTONICS 11(9) 3578-3584 AUG 21 2024

High lithiophilicity and Li diffusion rate on 1T phase transition metal dichalcogenides as effective Li
regulating materials for dendrite-free metal anodes

Wong HL, Hossain MD, Xu MY, Cai YT, Tamtaji M, Zhang KA, Luo ZT

JOURNAL OF MATERIALS CHEMISTRY A 12(35) 23810-23818 SEP 10 2024

Robust All-Day Frostphobic Surfaces

Ma W, Sergeev AA, Asif MB, Pan YM, Wang H, Li KQ, Safari A, Yang JL, Huang BL, Wong KS, Li Y, Yan
X, Yao SH

ACS APPLIED MATERIALS & INTERFACES 16(33) 44174-44185 AUG 8 2024

Bottom Contact Engineering for Ambient Fabrication of >25% Durable Perovskite Solar Cells

Yuan LG, Zou SB, Zhang KC, Huang P, Dong YY, Wang JR, Fan KZ, Lam MY, Wu X, Cheng W, Tang RJ,
Chen WH, Liu WQ, Wong KS, Yan KY

ADVANCED MATERIALS 36(41) 2409261 OCT 2024

WMINST Bylines (2001 – Present)

Growth by Hydrogen-Free Ramping during Chemical Vapor Deposition

Liu HW, Zhang TY, Wu P, Lee HW, Liu ZJ, Tang TW, Tang SY, Kang T, Park JH, Wang J, Zhang KN, Zheng XD, Peng YR, Chueh YL, Liu Y, Palacios T, Kong J, Luo ZT
NANO LETTERS DOI:10.1021/acs.nanolett.4c01314 JUL 2024

Enhancing vascular network visualization in 3D photoacoustic imaging: in vivo experiments with a vasculature filter

Amjadian, M, Mostafavi, SM, Chen, JB, Zhu, JY, Ma, J, Wang, LD, Luo, ZT
OPTICS EXPRESS DOI: 10.1364/OE.513911 JUL 15 2024

Integrated Pristine van der Waals Homojunctions for Self-Powered Image Sensors

Hu YX, Wan J, Tamtaji M, Fen Y, Tang TW, Amjadian M, Kang T, Xu MY, Shi XY, Zhao DX, Mi YL, Luo ZT, An L
ADVANCED MATERIALS DOI: 10.1002/adma.202404013 JUL 2024

Self-assembly construction of a homojunction of Sn-Pb perovskite using an antioxidant for all-perovskite tandem solar cells with improved efficiency and stability

Lin ZJ, Chen JW, Duan CH, Fan KZ, Li J, Zou S, Zou FL, Yuan LG, Zhang Z, Zhang KC, Lam MY, Aleksandr SA, Qiu JH, Wong KS, Yan H, Yan KY
ENERGY & ENVIRONMENTAL SCIENCE DOI: 10.1039/d4ee01539h JUL 2024

Casimir-Lifshitz Force for Graphene-Covered Gratings

Jeyar Y., Luo MG, Guizal B, Chan HB, Antezza M
PHYSICAL REVIEW B 110(4) 045446 DOI:10.1103/PhysRevB.110.045446 JUL 31, 2024

Boosting Monolayer Transition Metal Dichalcogenides Growth by Hydrogen-Free Ramping during Chemical Vapor Deposition

Liu HW, Zhang TY, Wu P, Lee HW, Liu ZJ, Tang TW, Tang SY, Kang T, Park JH, Wang J, Zhang KN, Zheng XD, Peng YR, Chueh YL, Liu Y, Palacios T, Kong J, Luo ZT
NANO LETTERS DOI:10.1021/acs.nanolett.4c01314 JUL 2024

High-throughput screening of dual atom catalysts for oxygen reduction and evolution reactions and rechargeable zinc-air battery

Tamtaji M, Kim MG, Li ZM, Cai SH, Wang J, Galligan PR, Hung FF, Guo H, Chen SG, Luo ZT, Wu WT, Goddard WA, Chen GH
NANO ENERGY 126 109634 JUL 2024

A High-Entropy Single-Atom Catalyst Toward Oxygen Reduction Reaction in Acidic and Alkaline Conditions

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Tamtaji M, Kim MG, Wang J, Galligan PR, Zhu HY, Hung FF, Xu ZH, Zhu Y, Luo ZT, Goddard WA, Chen GH

ADVANCED SCIENCE 11(26) JUL 2024

Lightweight, freestanding hybrids of graphene and hexagonal boron nitride foams

Galligan PR*, Liu HW, Wang G*, Tamtaji M, Li YX*, Tang TW, Zhou YG, Luo ZT

COMPOSITES PART A-APPLIED SCIENCE AND MANUFACTURING 182 108176 JUL 2024

Slow Hot-Exciton Cooling and Enhanced Interparticle Excitonic Coupling in HgTe Quantum Dots

Fan KZ, Sergeeva KA, Sergeev AA, Zhang L, Chan CCS, Li Z, Zhong XY, Kershaw SV, Liu JW, Rogach AL, Wong KS

ACS NANO DOI10.1021/acsnano.4c05061 JUN 2024

Epitaxial Growth of Two-Dimensional MoO₂-MoSe₂ Metal-Semiconductor Heterostructures for Schottky Diodes

Kang T, You JW, Wang J, Li YY, Hu YX, Tang TW, Lin XH, Li YX, Liu LT, Gao ZL, Liu Y, Luo ZT

NANO LETTERS DOI10.1021/acs.nanolett.4c01865 JUN 2024

Efficient Second-Harmonic Generation with Weak Polarization Sensitivity in Gallium Nitride Metasurfaces via Bound States in the Continuum

Fan KZ, Chen HH, Sergeev AA, Xing ZS, Zhu RQ, Lau KM, Wu LJ, Wong KS

ADVANCED OPTICAL MATERIALS DOI10.1002/adom.202400815 JUN 2024

Nonlinear Optical Response of Strain-mediated gallium arsenide microwire in the near-infrared region

Cui XP, Huo W, Qiu LL, Zhao LK, Wang JJ, Lou F, Zhang SY, Khayrudino V, Tam WY, Lipsanen H, Yang H, Wang X

NANOPHOTONICS 13(13) 2379-89 DOI: 10.1515/nanoph-2023-0948 MAY 27 2024

Charge Injection and Auger Recombination Modulation for Efficient and Stable Quasi-2D Perovskite Light-Emitting Diodes

Ngai KH, Sun XW, Zou XH, Fan KZ, Wei Q, Li MJ, Li S, Lu XH, Meng WW, Wu B, Zhou GF, Long MZ, Xu JB

ADVANCED SCIENCE 11(18) MAY 2024

Heterocyclic Diammonium Dion-Jacobson Perovskite Blue Light-Emitting Diodes with Nonshift Emission Peak Under High Bias Voltage

Zou SB, Fan KZ, Wu X, Yuan LG, Wang JR, Wang KY, Li J, Wei JW, Xu S, Zou FL, Wong, KS, Lu XH, Xu JB, Yan KY

ADVANCED OPTICAL MATERIALS 12(14) MAY 2024

WMINST Bylines (2001 – Present)

Low-Temperature Vapor-Phase Growth of 2D Metal Chalcogenides

Zhang KA, Zhang TY, You JW, Zheng XD, Zhao M, Zhang LJ, Kong J, Luo ZT, Huang SM

SMALL 20 (19) MAY 2024

Graphene-supported single atom catalysts for high performance lithium-oxygen batteries

Wong HL, Liu TC, Tamtaji M, Huang XZ, Tang TW, Hossain MD, Wang J, Cai YT, Liu ZJ, Liu HW, Amine K, Goddard WA, Luo ZT

NANO ENERGY 121 109279 MAR 2024

Broadband Photodetection of Centimeter-Scale T-Phase Gallium Telluride Grown by Molecular Beam Epitaxy

Cheng YJ, Wang JL, He ZH, Chen MY, Guo XH, Deng B, Ye QL, Li SW, Chen HJ, Sou IK, Wu SX

ACS APPLIED MATERIALS & INTERFACES 16(14) 17881-17890 MAR 27 2024

Modulating Adsorption-Redox Sites and Charge Separation of Cs₃Bi₂Br_{9-x} @AgBr Core-Shell Heterostructure for Selective Toluene Photooxidation

Zhou B, Fan KZ, Chong YA, Xu S, Wei JW, Wei JK, Sergeev AA, Wong KS, Li T, Chen GX, Ye DQ, Yan KY

ACS ENERGY LETTERS 9(4) 1743-1752 MAR 26 2024

MBE-grown tetragonal FeTe consisting of c-axis-aligned nanocrystals

He ZH, To YO, Ma C, Wang JN, Sou IK,

AIP ADVANCES 14(3) 035243 MAR 1 2024

Epitaxial Growth of 1D Te/2D MoSe₂ Mixed-Dimensional Heterostructures for High-Efficient Self-Powered Photodetector

You JW, Jin ZJ, Li YY, Kang T, Zhang KA, Wang WL, Xu MY, Gao ZL, Wang JN, Kim JK, Luo ZT

ADVANCED FUNCTIONAL MATERIALS 34 (10) MAR 2024

Dual role of hBN as an artificial solid-electrolyte interface layer for safe zinc metal anodes

Wong HL, Tang TW, Chen HL, Xu MY, Wang J, Cai YT, Goddard WA III, Luo ZT

JOURNAL OF MATERIALS CHEMISTRY A 12(7) 4195-4203 FEB 13 2024

The Zn Deposition Mechanism and Pressure Effects for Aqueous Zn Batteries: A Combined Theoretical and Experimental Study

Li YY, Musgrave CB, Yang MY, Kim MM, Zhang KA, Tamtaji M, Cai YT, Tang TW, Wang J, Yuan B, Goddard WA, Luo ZT

ADVANCED ENERGY MATERIALS 14 (6) FEB 2024

High-efficiency spin-decoupled modulation using chiral C₂-symmetric meta-atoms

WMINST Bylines (2001 – Present)

Chen HH, Wu JP, He ML, Wang H, Wu XN, Fan KZ, Liu HY, Li Q, Wong KS, Wu LJ
PHYSICAL REVIEW A 109(1) 013517 JAN 24 2024

GaAs Templates Selectively Grown on Silicon-on-Insulator for Lasers in Silicon Photonics
Huang J, Lin Q, Xue Y, Lin LY, Xing ZS, Wong, KS, Lau KM
CRYSTAL GROWTH & DESIGN 24(3) 1302-1307 JAN 24 2024

Correlation between fragility and surface glass transition temperature of polymers
Ma ZY, Nie HR, Yan JS, Tsui OKC
JOURNAL OF CHEMICAL PHYSICS 159 (22) 224905 DEC 14 2023

Tunable nonadditivity in the Casimir-Lifshitz force between graphene gratings
Jeyar Y, Luo MG, Austry K, Guizal B, Zheng Y, Chan HB, Antezza M
PHYSICAL REVIEW A 108 (6) 062811 DEC 12 2023

In Situ Defect Engineering of Controllable Carrier Types in WSe₂ for Homomaterial Inverters and Self-Powered Photodetectors
Kang T, Lu ZY, Liu LT, Huang MZ, Hu YX, Liu HW, Wu RX, Liu ZJ, You JW, Chen Y, Zhang KA, Duan XD, Wang N, Liu Y, Luo ZT
NANO LETTERS 23 (23) 11034-11042 DEC 1 2023

Flexural wave illusion on a curved plate
Zhao PF, Luo LY, Liu YQ, Li JS
APL MATERIALS 12 121103 DEC 1 2023

Dual atom catalysts for rapid electrochemical reduction of CO to ethylene
Musgrave CB III, Li YY, Luo ZT, Goddard WA III
NANO ENERGY 118 Part A DEC 15 2023

Reaction Mechanism and Kinetics of Oxygen Reduction Reaction on the Iron-nickel Dual Atom Catalyst
Tamtaji M, Li YY, Cai YT, Liu HW, Goddard WA, Chen GH
JOURNAL OF MATERIALS CHEMISTRY A 11(46) 25410-21 DOI: 10.1039/d3ta05694e

Aligned carbon-doping to modulate thermal and electrical conductivity of boron carbon nitride grown from chemical vapor deposition
Galligan PR, Xu YX, Tang TW, Liu HW, Tamtaji M, Zhou YG, Luo ZT
CARBON DOI10.1016/j.carbon.2023.118397 NOV 2023

In-plane 1.5 μm DFB Lasers Laterally Grown on SOI
Xue Y, Li J, Wang Y, Xu K, Xing ZS, Wong KS, Tsang HK, Lau KM

WMINST Bylines (2001 – Present)

2023 IEEE PHOTONICS CONFERENCE, IPC DOI: 10.1109/IPC57732.2023.10360767 NOV 2023

Two-dimensional materials for high density, safe and robust metal anodes batteries (vol 10, pg 37, 2023)

Wong HL, Li YY, Wang J, Tang TW, Cai YT, Xu MY, Li HL, Kim TH, Luo ZT

NANO CONVERGENCE DOI10.1186/s40580-023-00394-2 SEP 22 2023

Casimir-Lifshitz force between graphene-based structures out of thermal equilibrium

Jeyar Y, Austry K, Luo MG, Guizal B, Chan HB, Antezza M

PHYSICAL REVIEW B DOI10.1103/PhysRevB.108.115412 SEP 7 2023

Effective medium for time-varying frequency-dispersive acoustic metamaterials

Zhu XH, Wu,HW, Zhuo Y, Liu ZL, Li JS

PHYSICAL REVIEW B DOI10.1103/PhysRevB.108.104303 SEP 5 2023

Two-dimensional materials for high density, safe and robust metal anodes batteries

Wong HL, Li YY, Wang J, Tang TW, Cai YT, Xu MY, Li HL, Kim TH, Luo ZT

NANO CONVERGENCE 10 (1) Aug 10 2023

In-Plane 1.5 μm Distributed Feedback Lasers Selectively Grown on (001) SOI

Xue Y, Li J, Wang Y, Xu K, Xing ZS, Wong KS, Tsang HK, Lau KM

LASER & PHOTONICS REVIEWS 18(1) DOI10.1002/lpor.202300549 AUG 2023

Glass Transition of the Surface Monolayer of Polystyrene Films: Effect of Thermal Preannealing

Yan JS, Ma ZY, Xu JQ, Nie HR, Yuan HL, Wang XP, Wang T, Weng LT, Tsui OKC

MACROMOLECULES 56(15) 5917-5923 JUL 27 2023

Methoxy Functionalization of Phenethylammonium Ligand for Efficient Perovskite Light-Emitting Diodes

Sun XW, Liang T, Ngai KH, Nie ZG, Fan KZ, Li S, Chan CCS, Wong KS, Lu XH, Xu JB, Long MZ

ADVANCED OPTICAL MATERIALS 11(13) DOI10.1002/adom.202300464 JUL 2023

In Situ MAPbI₃ Perovskite Nanostructures Formed by a Poly[(phenylglycidyl ether)-co-formaldehyde]
Epoxide for Enhanced Stability and Photoluminescence

Shivarudraiah SB, Chan CCS, Chen DZ, Zhou ZC, Ng M, Tewari N, Tao CK, Wong KS, Halpert JE

ACS APPLIED NANO MATERIALS 61(13) 12240-12247 JUN 27 2023

Loosely Adsorbed Chains Expedite the Desorption of Flattened Polystyrene Chains on Flat Silicon
Surface

Ren WZ, Li YL, Tang YL, Xu JQ, Zhang CY, Tsui OKC, Wang XP

ACS MACRO LETTERS 12(7) 854-859 JUN 20 2023

WMINST Bylines (2001 – Present)

Coherent generation and control of tunable narrowband THz radiation from a laser-induced air-plasma filament

Zhou XY, Lin YC, Chan Y, Deng F, Zhang JD

OPTICS LETTERS 48(11) 2881-2884 JUN 1 2023

Uniform SnSe nanoparticles on 3D graphene host enabling a dual-nucleation-site interface for dendrite-free sodium metal batteries

Xu MY, Liu ZJ, Li Y, Mubarak N, Wong HL, Tamtaji M, Zhao YH, Li YY, Wang J, You JW, Liu HW, Cai YT, Zhang KA, Xu F, Amine K, Kim JK, Luo ZT

ENERGY STORAGE MATERIALS 60 102848 JUN 2023

Additive-Stabilized Emission Centers for Blue Perovskite Light-Emitting Diodes

Zou SB, Fan KZ, Liu ZD, Yuan LG, Yin QX, Bai JK, Wang JR, Li J, Yang M, Wei JW, Wu LQ, Xu S, Xue QF, Xie JS, Wong KS, Xu JB, Yan KY

ACS APPLIED MATERIALS & INTERFACES 15(22) 26778-26786 MAY 23 2023

Improved Structural Order and Exciton Delocalization in High- Member Quasi-Two-Dimensional Tin Halide Perovskite Revealed by Electroabsorption Spectroscopy

Xing ZS, Zang ZH, Li HS, Ning ZJ, Wong KS, Chow PCY

JOURNAL OF PHYSICAL CHEMISTRY LETTERS 14(18) 4349-4356 MAY 11 2023

Particle-continuum duality of skyrmions

Wang XR, Hu XC

PHYSICAL REVIEW B 107(17) 174412 MAY 10 2023

Epitaxial substitution of metal iodides for low-temperature growth of two-dimensional metal chalcogenides

Zhang KA, She YH, Cai XB, Zhao M, Liu ZJ, Ding CC, Zhang LJ, Zhou W, Ma JH, Liu, HW, Li LJ, Luo ZT, Huang SM

NATURE NANOTECHNOLOGY 18(5) 448 MAY 2023

Highly active hydrogen evolution facilitated by topological surface states on a Pd/SnTe heterostructure

Qu Q, Liu B, Lau WS, Pan D, Sou IK

CELL REPORTS PHYSICAL SCIENCE 4(4) 101332 APR 19 2023

A conformally bonded molecular interface retarded iodine migration for durable perovskite solar cells

Yuan LG, Zhu WY, Zhang YH, Li Y, Chan CCS, Qin MC, Qiu JH, Zhang KC, Huang JX, Wang JR, Luo HM, Zhang Z, Chen RP, Liang WX, Wei Q, Wong KS, Lu XH, Li N, Brabec CJ, Ding LM, Yan KY

ENERGY & ENVIRONMENTAL SCIENCE 16(4) 1597-1609 APR 12 2023

Non-bonding interaction of dual atom catalysts for enhanced oxygen reduction reaction

WMINST Bylines (2001 – Present)

Tamtaji M, Peng QM, Liu TC, Chao X, Xu ZH, Galligan PR, Hossain MD, Liu ZJ, Wong HL, Liu HW, Amine K, Zhu Y, Goddard WA, Wu WT, Luo ZT
NANO ENERGY 108 108218 APR 2023

Single and dual metal atom catalysts for enhanced singlet oxygen generation and oxygen reduction reaction (vol 11, pg 7513, 2023)

Tamtaji M, Cai SH, Wu WT, Liu TC, Li ZM, Chang HY, Galligan PR, Iida S, Li XR, Rehman F, Amine K, Goddard WA, Luo ZT
JOURNAL OF MATERIALS CHEMISTRY A 11(14) 7783-7783 APR 4 2023

Single and dual metal atom catalysts for enhanced singlet oxygen generation and oxygen reduction reaction

Tamtaji M, Cai SH, Wu WT, Liu TC, Li ZM, Chang HY, Galligan PR, Iida S, Li XR, Rehman F, Amine K, Goddard WA, Luo, ZT
JOURNAL OF MATERIALS CHEMISTRY A 11(14) 7513-7525 APR 4 2023

Interfacial Superconductivity and Zero Bias Peak in Quasi-One-Dimensional Bi₂Te₃/Fe_{1+y}Te Heterostructure Nanostructures

Cheng MK, Ng CY, Ho SL, Atanov O, Tai WT, Liang J, Lortz R, Sou IK
ADVANCED ELECTRONIC MATERIALS 9(4) DOI10.1002/aelm.202200943 APR 2023

Giant nonlinear Hall effect in twisted bilayer WSe₂

Huang MZ, Wu ZF, Hu JX, Cai XB, Li E, An. LH, Feng XM, Ye ZQ, Lin N, Law KT, Wang N
NATIONAL SCIENCE REVIEW 10(4) nwac232 MAR 21 2023

Effect of molding on the structure and properties of poly(butylene adipate-co-terephthalate)/poly(propylene carbonate)/organically modified montmorillonite nanocomposites

Zhao Y, Lai JQ, Jiang H, Li YY, Li Y, Li FY, Luo ZT, Xie D
APPLIED CLAY SCIENCE 234 106854 MAR 15 2023

Modulating the Mixing Gibbs Free Energy to Enhance Solid-Liquid Phase Separation for High-Performance Organic Solar Cells

He XJ, Chan CCS, Zou XH, Zhang S, Fong PWK, Kim J, Li G, Hu XT, Ma W, Wong KS, Choy WCH
ADVANCED ENERGY MATERIALS 13(11) DOI10.1002/aenm.202203697 MAR 2023

MBE-grown Fe:Pd/ZnSe Schottky-barrier photodetector: Distinguishing blue plus UV light levels among white light sources

Lin SY, He ZH, To YO, Sou IK

WMINST Bylines (2001 – Present)

APPLIED PHYSICS LETTERS 122(6) 061101 FEB 6 2023

Large-diameter indium antimonide microwire based broadband and robust optical switch

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