

# WMINST Bylines (2001 – Present)

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

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

## WMINST Bylines (2001 – Present)

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

Epitaxial Growth of Two-Dimensional MoO<sub>2</sub>-MoSe<sub>2</sub> 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

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

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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 Cs<sub>3</sub>Bi<sub>2</sub>Br<sub>9-x</sub> @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 MoSe<sub>2</sub> 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 C<sub>2</sub>-symmetric meta-atoms

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

## WMINST Bylines (2001 – Present)

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 WSe<sub>2</sub> 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  $\mu\text{m}$  DFB Lasers Laterally Grown on SOI

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

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

## WMINST Bylines (2001 – Present)

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  $\mu\text{m}$  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 MAPbI<sub>3</sub> 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

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

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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

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)

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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 Bi<sub>2</sub>Te<sub>3</sub>/Fe<sub>1+y</sub>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 WSe<sub>2</sub>

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

APPLIED PHYSICS LETTERS 122(6) 061101 FEB 6 2023

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

Lou F, Cui XP, Sheng XY, Jia CY, Zhang SY, Wang X, Khayrudinov V, Zhang BT, Liu SD, Tam WY, Lipsanen H, Yang H, He JL

SCIENCE CHINA-PHYSICS MECHANICS & ASTRONOMY 66(2) 224211 FEB 2023

## WMINST Bylines (2001 – Present)

Glass Transition of the Surface Monolayer of Polystyrene Films with Different Film Thicknesses and Supporting Surfaces

Yan JS, Xu JQ, Weng LT, Wang FL, Wang XP, Yuan HL, Wang T, Tsui OKC,

MACROMOLECULES 56(2) 556-566 JAN 24 2023

Characterizations for the photothermal effect of Rhodamine 6G using white- light interferometry and windowed Fourier transform

Zhang QY, Hao LH, Teng LH, Zhao QL, Wang X, Tam WY

OPTICS EXPRESS 31(2) 864-876 JAN 16 2023

Realizing High-Detectivity Near-Infrared Photodetectors in Tin-Lead Perovskites by Double-Sided Surface-Preferred Distribution of Multifunctional Tin Thiocyanate Additive

Liu H, Zhu L, Zhang H, He XJ, Yan F, Wong KS, Choy WCH

ACS ENERGY LETTERS 81(1) 577-589 JAN 13 2023

A theory of unusual anisotropic magnetoresistance in bilayer heterostructures

Wang XR, Wang C, Wang XS

SCIENTIFIC REPORTS 13(1) 309 JAN 6 2023

Quantum Solid Phase and Coulomb Drag in 2D Electron-Electron Bilayers of MoS<sub>2</sub>

Huang MZ, Wu ZF, Wang N, Chui ST

ADVANCED ELECTRONIC MATERIALS DOI10.1002/aelm.202201105 JAN 2023

Salt-Assisted Selective Growth of H-phase Monolayer VSe<sub>2</sub> with Apparent Hole Transport Behavior

You JW, Pan J, Shang SL, Xu X, Liu ZJ, Li JW, Liu HW, Kang T, Xu MY, Li SB, Kong DQ, Wang WL, Gao ZL, Zhou X, Zhai TY, Liu ZK, Kim AY, Luo ZT

NANO LETTERS 22(24) 10167-10175 DEC 28 2022

High-throughput screening to predict highly active dual-atom catalysts for electrocatalytic reduction of nitrate to ammonia

Rehman F, Kwon S, Musgrave CB, Tamtaji M, Goddard WA, Luo ZT

NANO ENERGY Volume103 107866 DEC 1 2022

Deposition of Horizontally Stacked Zn Crystals on Single Layer 1T-VSe<sub>2</sub> for Dendrite-Free Zn Metal Anodes

Li YY, Wong HL, Wang J, Peng WL, Shen YD, Xu MY, An Q, Kim JK, Yuan B, Goddard WA, Luo ZT

ADVANCED ENERGY MATERIALS 12(7) DEC 2022

Field-driven domain wall motion in ferrimagnetic nanowires



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Jing KY, Gong X, Wang XR

PHYSICAL REVIEW B 106(17) NOV 22 2022

Microscale mobile surface double layer in a glassy polymer

Yuan HL, Yan JS, Gao P, Kumar SK, Tsui OKC

SCIENCE ADVANCES 8(45) eabq5295 NOV 11 2022

Reaction mechanism and kinetics for N<sub>2</sub> reduction to ammonia on the Fe-Ru based dual-atom catalyst

Rehman F, Kwon S, Hossain MD, Musgrave CB, Goddard WA, Luo ZT

JOURNAL OF MATERIALS CHEMISTRY A 10 (43) 23323-23331 NOV 8 2022

Asymmetric double-pulse interferometric FROG for visible-wavelength time-domain spectroscopy

Chan Y, Deng F, Zhang JD

OPTICS LETTERS 47(21) NOV 1 2022

Barrierless Exciton Self-Trapping and Emission Mechanism in Low-Dimensional Copper Halides

Xing ZS, Zhou ZC, Zhong GH, Chan CCS, Li YY, Zou XH, Halpert JE, Su HB, Wong KS

ADVANCED FUNCTIONAL MATERIALS 32(46) 2207638 NOV 2022

Machine Learning-Aided Design of Gold Core-Shell Nanocatalysts toward Enhanced and Selective Photooxygenation

Tamtaji M, Guo XY, Tyagi A, Galligan PR, Liu ZJ, Roxas A, Liu HW, Cai YT, Wong HL, Zeng L, Xie JB, Du YC, Hu ZG, Lu D, Goddard WA, Luo, ZT, Zhu Y

ACS APPLIED MATERIALS & INTERFACES 14(41) 46471-46480 OCT 19 2022

An insight into the microstructures and composition of 2,700 m-depth deep-sea limpet shells

Ying ZH, Wang S, Wong WC, Cai XB, Feng XM, Xiang SL, Cai Y, Qian PY, Wang N

FRONTIERS IN MARINE SCIENCE 9 902815 AUG 17 2022

Telecom InGaAs/InP Quantum Well Lasers Laterally Grown on Silicon-on-Insulator

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

JOURNAL OF LIGHTWAVE TECHNOLOGY 40 (16) 5631-5635 AUG 15 2022

Lithium Dendrite Suppression with Li<sub>3</sub>N-rich Protection Layer Formation on 3D Anode via Ultra-low Temperature Nitriding

Hou WW, Li YY, Li SB, Liu ZJ, Galligan PR, Xu MY, Kim JK, Yuan B, Hu RZ, Luo ZT

CHEMICAL ENGINEERING JOURNAL 441 136067 AUG 1 2022

Adhesive hydrogel wrap loaded with Netrin-1-modified adipose-derived stem cells: An effective approach against periarterial inflammation after endovascular intervention

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Jiang YH, Cai YT, Hu JT, Zhang X, Lei JH, Peng ZX, Huang Q, Huang Qun, Xu ZJ, Li B, Qin JB, Li WM, Sun DZ, Ye KC, Lu XW

FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY 10 944435 JUL 22 2022

Energy Transfer into Period-Tripled States in Coupled Electromechanical Modes at Internal Resonance

Yan, YM, Dong, X, Huang L, Moskovtsev K, Chan HB

PHYSICAL REVIEW X 031003 JUL 6 2022

Band Alignment Engineering by Twist Angle and Composition Modulation for Heterobilayer

Kang T, Jin ZJ, Han X, Liu Y, You JW, Wong HL, Liu HW, Pan J, Liu ZJ, Tang TW, Zhang KN, Wang J, Yu JT, Li D, Pan AL, Pan D, Wang JN, Liu Y, Luo ZT

SMALL 2202229 JUN 2022

Diammonium-Mediated Perovskite Film Formation for High-Luminescence Red Perovskite Light-Emitting Diodes

Li N, Apergi S, Chan CCS, Jia YH, Xie FY, Liang Q, Li G, Wong KS, Brocks G, Tao SX, Zhao N

ADVANCED MATERIALS 2202042 JUN 2022

Conductive Hydrogel Conduits with Growth Factor Gradients for Peripheral Nerve Repair in Diabetics with Non-Suture Tape

Cai YT, Huang Q, Wang PH, Ye KC, Zhao Z, Chen HM, Liu ZJ, Liu HW, Wong HL, Tamtaji M, Zhang KN, Xu F, Jin GR, Zeng L, Xie JB, Du YC, Hu ZG, Sun DZ, Qin JB, Lu XW, Luo ZT

ADVANCED HEALTHCARE MATERIALS 2200755 JUN 2022

New Insights into Hot-Charge Relaxation in Lead Halide Perovskite: Dynamical Bandgap Change, Hot-Biexciton Effect, and Photo-Bleaching Shift

Fan KZ, Chan CCS, Yuan LG, Yan KY, Wong KS

ACS PHOTONICS DOI10.1021/acsp Photonics.2c00287 JUN 2022

Coherent Heterostructure Mesh Grown by Gap-Filling Epitaxial Chemical Vapor Deposition

Liu HW, Liu ZJ, Cai XB, Wong HL, Huang MZ, Amjadian M, Wang J, Tamtaji M, Li JW, Kang T, Tang TW, Cai YT, Xu MY, Zhang KN, Xu T, Xu MJ, Sun XD, Chen GJ, Gao ZL, Wang N, Luo ZT

CHEMISTRY OF MATERIALS 34(10) 4765-4773 MAY 24 2022

Slow Hole Transfer Kinetics Lead to High Blend Photoluminescence of Unfused A-D-A'-D-A-Type Acceptors with Unfavorable Highest Occupied Molecular Orbitals Offset

Zou XH, Yu H, Qi ZY, Liu B, Xing ZS, Chan CCS, Chow PCY, Pan D, Yan H, Wong KS

SOLAR RRL 2200169 APR 2022

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Metalloporphyrin-anchored 2D MOF Nanosheets as Highly Accessible Heterogeneous Photocatalysts  
Towards Cytocompatible Living Radical Polymerization

Li X, Huang Y, Wei WF, Guo WL, Luo ZT, Xu JT, Cai T

CHEMICAL ENGINEERING JOURNAL 434 134692 APR 15 2022

Quasi-Continuous Network Structure Greatly Improved the Anti-Arc-Erosion Capability of Ag/Y2O3  
Electrical Contacts

Yang R, Liu SH, Cui H, Yang HW, Zeng YM, Liu MM, Chen JL, Wen M, Wang W, Luo ZT, Sun XD

MATERIALS 15(7) 2450 APR 2022

Development of High Throughput Photopolymerizations Using Micron-Sized Ultrathin Metal-Organic  
Framework Nanosheets

Huang Y, Guo WL, He JC, Li X, Cai T

MACROMOLECULAR RAPID COMMUNICATIONS 43(9) 2200020 MAY 2022

1-Chloronaphthalene-Induced Donor/Acceptor Vertical Distribution and Carrier Dynamics Changes in  
Nonfullerene Organic Solar Cells and the Governed Mechanism

He XJ, Chan CCS, Kim J, Liu H, Su CJ, Jeng US, Su HB, Lu XH, Wong KS, Choy WCH

SMALL METHODS 6(3) 2101475 MAR 2022

Rational Control on Quantum Emitter Formation in Carbon-Doped Monolayer Hexagonal Boron Nitride

Liu HW, Mendelson N, Abidi IH, Li SB, Liu ZJ, Cai YT, Zhang KN, You JW, Tamtaji M, Wong HL, Ding Y,  
Chen GJ, Aharonovich I, Luo ZT

ACS APPLIED MATERIALS & INTERFACES 14(2) 3189-3198 JAN 19 2022

2D Ultrathin p-type ZnTe with High Environmental Stability

You SD, Wu Z, Niu LJ, Chu XH, She YH, Liu ZJ, Cai YT, Liu HW, Zhang LJ, Zhang KN, Luo ZT, Huang SM

ADVANCED ELECTRONIC MATERIALS 8(4) 2101146 APR 2022

Structure Evolution of hBN Grown on Molten Cu by Regulating Precursor Flux during Chemical Vapor  
Deposition

Liu HW, He WZ, Liu ZJ, Abidi IH, Ding Y, Galligan PR, Tamtaji M, Li JW, Cai YT, Kang T, Wong H, Li ZJ,  
Gao ZL, Mi YL, Xu ZP, Luo ZT

MATERIALS 9(1) 015004 JAN 2022

Controlling Asymmetric Transmission Phase in Planar Chiral Metasurfaces

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