

WMINST Bylines (2001 – Present)

A near-infrared regulated programmable multi-mode periosteum scaffold for sequential healing of infected bone defects

Yin Y, Cai YT, Dang PR, Zeng WY, Wang L, Yan X, Luo ZT, Liu WW, Zhu YZ, Chen LL, Zhang CG

BIOACTIVE MATERIALS DOI10.1016/j.bioactmat.2026.03.046

SEP 2026

Tunable difunctional terahertz metasurface based on vanadium dioxide

Zhao YM, Li L, Sha KX, Hu WD, Zhang QY, Zhang RR, Li R, Tam WY, Wang X

PHYSICA SCRIPTA 101(29) 295503 JUL 24 2026

Direct Growth of Wafer-Scale Epitaxially Aligned Single-Crystal Two-Dimensional Transition Metal Dichalcogenide in Confined Arrays

Wang J, Li YY, Hasan MS, Hu YX, Xin ZY, Ma HC, Zhang KN, Tang TW, Shi BC, Huang ZH, Liu H, You JW, Ding Y, Luo ZT

CHEMISTRY OF MATERIALS 38 (13) 6302-6311 JUL 14 2026

Dual-scale bionic sensor with high stretchability for AI-enabled squatting motion monitoring

Zhang CH, Wang FJ, Liang CM, Wang J, Luo ZT, Shi BC, Tian YL

BIOSENSORS & BIOELECTRONICS DOI10.1016/j.bios.2026.118564 JUL 1 2026

All-Solution-Processed HgTe Quantum Dot Photodetectors for Extended Short-Wavelength Infrared Range Enhanced by Plasmonic ITO Nanocrystals

Sergeeva KA, Sokolova AV, Guo CX, Huo YF, Kuznetsova YV, An R, Sergeev AA, Wong KS, Zhao TS, Rogach, AL

ADVANCED FUNCTIONAL MATERIALS 36(58) JUL 2026

Interfacial Polymerization of TEPA and HMDI: The Role of Water

Liu BY, Zhang YL, Zhao Y, Prakash P, Huai LY, Ma HC, Luo ZT, Goddard WA, Yang JL

ACS CATALYSIS 16(7) 6368-6379 APR 3 2026

Van der Waals-integrated crossbar arrays with adjustable atomic-scale channels for ultralow-power imaging

Hu YX, Tamtaji M, Dai MJ, Tang TW, Shen JH, Wang J, Gao ZL, Zhang N, An L, Luo ZT

MATTER 9(3) 102618 MAR 4 2026

Wearable Sensors Fabricated by 3D-Printed Composite Hydrogel with 2D Fillers

Li YX, Pei S, Wang J, Zhang CH, Shi BC, Luo ZT

SMALL METHODS DOI10.1002/smtd.202502195 FEB 2026

WMINST Bylines (2001 – Present)

Miniaturized Self-Powered Perovskite Spectrometer

Zheng XH, Guan Z, Zhang N, Zhang Z, Li YX, Tam C, He HY, Ma YX, Xu YB, Li ZY, Hu YX, Huang LL,
Wei J, Luo ZT, Wang YT

SMALL DOI10.1002/sml.202512206 JAN 2026

Gas-Phase Construction of Compact Capping Layers for High-Performance Halide Perovskite X-Ray
Detectors

Zhang B, Hao CY, Zhang SF, Xue B, Xie XF, Zeng SQ, Yang B, Xu F, Li H, Zhang X, Qu Z, Ye KH, Niu GD,
Choy WCH, Fan KZ, Wong KS, Yan L, Wang XZ, Xiao S, Zhou CT

NANO-MICRO LETTERS 18(1) 89 DEC 20 2025

Sensing at exceptional point in terahertz metasurfaces

Li ZC, Zhang QY, Wang X, Tam WY

APPLIED OPTICS 64(35) 10471-10478 DEC 10 2025

Delayed crystallization response-inspired waterborne polyurethane with high performance

Huyan C, Liu D, Han X, Liu DJ, Li HX, Tsui OKC, Su L, Qin X, Pan CC, Chen F, Zhang LQ

NATURE COMMUNICATIONS 16(1) 9546 OCT 29 2025

Light-induced percolative electronic phase transition in the type-II Weyl semimetal WTe₂

Zhou XY, Deng F, Gao YF, Wu YH, Chan Y, Li SL, Wang N, Liu JW, Zhang JD

PHYSICAL REVIEW B 112(16) L161107 OCT 3 2025

Exploring Long-Range Surface-Induced Mobility Enhancement in Poly(methyl methacrylate)

Nie HR, Chen XW, Ma ZY, Zhang R, Tsui OKC

MACROMOLECULES 58(19) 10937-10947 OCT 14 2025

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

WMINST Bylines (2001 – Present)

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 Volume 19(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

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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)

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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 MoS₂

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 VSe₂ 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-VSe₂ 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

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 N₂ 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

WMINST Bylines (2001 – Present)

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 Li₃N-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

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

WMINST Bylines (2001 – Present)

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

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

WMINST Bylines (2001 – Present)

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

Zhang RR, Zhao QL, Wang X, Lau KM, Yung TK, Li Jensen, Tam WY
NANOPHOTONICS 11(3) 495-505 JAN 25 2022

Graphene Foam/Hydrogel Scaffolds for Regeneration of Peripheral Nerve using ADSCs in a Diabetic
Mouse Model

Huang Q, Cai YT, Yang XR, Li WM, Pu HJ, Liu ZJ, Liu HW, Tamtaji M, Xu F, Sheng LY, Kim TH, Zhao SQ,
Sun DZ, Qin JB, Luo ZT, Lu XW
NANO RESEARCH 15(4) 3434-3445 APR 2022

WMINST Bylines (2001 – Present)

Thermal Stability, Ripening Dynamics and Coalescing Microstructures of Reduced Graphene

Oxide-based Platinum Nanocatalysts: An In-situ TEM Study

Ying ZH, Diao JY, Wang S, Cai XB, Cai Y, Liu HY, Wang N

DIAMOND AND RELATED MATERIALS 120 108690 DEC 2021

Large-Size Superlattices Synthesized by Sequential Sulfur Substitution-Induced Transformation of Metastable MoTe₂

Liu ZJ, Feng SZ, Cai XB, Liu HW, Li JW, Amjadian M, Cai Yuting, Wong HL, Tamtaji M, An LH, Zhang KN, Chen GJ, Wang N, Xu ZP, Luo ZT

CHEMISTRY OF MATERIALS 33(24) 9760-9768 DEC 28 2021

Mechanistic Understanding and Design of Non-noble Metal-based Single-atom Catalysts Supported on Two-dimensional Materials for CO₂ Electroreduction

Huang Y, Rehman F, Tamtaji M, Li XI, Huang YQ, Zhang T, Luo ZT

JOURNAL OF MATERIALS CHEMISTRY A 10(11) 5813-5834 MAR 15 2022

NaF-rich Solid Electrolyte Interphase for Dendrite-free Sodium Metal Batteries

Xu MY, Li Y, Ihsan-UI-Haq M, Mubarak N, Liu ZJ, Wu JX, Luo ZT, Kim JK

ENERGY STORAGE MATERIALS 44 477-486 JAN 2022

Role of Topological Surface States and Mirror Symmetry in Topological Crystalline Insulator SnTe as an Efficient Electrocatalyst

Qu Q, Liu B, Liu HT, Liang J, Wang JN, Pan D, Sou IK,

NANOSCALE 13(43) 18160-18172 NOV 11 2021

A Monolithic InP/SOI Platform for Integrated Photonics

Yan Z, Han Y, Lin LY, Xue Y, Ma C, Ng WK, Wong KS, Lau KM

LIGHT-SCIENCE & APPLICATIONS 10(1) 200 SEP 26 2021

Aqueous Protein-Polymer Bioconjugation via Photoinduced RAFT Polymerization Using High Loading Heterogeneous Catalyst

Huang Y, Li X, Zhang YC, Shi ZW, Zeng L, Xie JB, Du YC, Lu D, Hu ZG, Cai T, Luo ZT

ACS APPLIED MATERIALS & INTERFACES 13(37) 44488-44496 SEP 22 2021

Understanding the Charge Transfer State and Energy Loss Trade-offs in Non-fullerene-Based Organic Solar Cells

Dela Pena TA, Khan JI, Chaturvedi N, Ma RJ, Xing ZS, Gorenflot J, Sharma A, Ng FL, Baran D, Yan H, Laquai F, Wong KS

ACS ENERGY LETTERS 6(10) 3408-3416 OCT 8 2021

WMINST Bylines (2001 – Present)

Graphitization of Low-density Amorphous Carbon for Electrocatalysis Electrodes from ReaxFF Reactive Dynamics

Hossain MD, Zhang Q, Tao C, Goddard WA, Luo ZT

CARBON 183 940-947 OCT 15 2021

Singlet Oxygen Photosensitization Using Graphene-Based Structures and Immobilized Dyes: A Review

Tamtaji M, Tyagi Abhishek, You CY, Galligan PR, Liu HW, Liu ZJ, Karimi R, Cai YT, Roxas AP, Wong HL, Luo ZT

ACS APPLIED NANO MATERIALS 4(8) 7563-7586 AUG 27 2021

Enhancing Interfacial Reliability of Metal-Thermoplastic Hybrid Joints via Adding Carbon Fiber and :

Bi XY, Luo ZT, Liu BS, Xu MJ, Wang ZM

ACS APPLIED MATERIALS & INTERFACES 13 (28) 33722-33733 JUL 21 2021

In Situ Atomic-scale Studies of Thermal Stability and Surface Reconstruction of ZnO Nanowires based Pd Nanocatalysts

Ying ZH, Diao JY, Wang S, Cai XB, Cai Y, Liu HY, Wang N

MATERIALS & DESIGN 209 109947 NOV 1 2021

Upside-Down Molding Approach for Geometrical Parameter-Tunable Photonic Perovskite Nanostructures

Nie LB, Ng WK, Liang ZF, Ren XG, Yang TB, Mei GD, Leung CW, Wong KS, Choy WCH,

ACS APPLIED MATERIALS & INTERFACES 13(23) 27313-27322 JUN 16 2021

Evaporation-Free Organic Solar Cells with High Efficiency Enabled by Dry and Nonimmersive Sintering Strategy

He XJ, Wang Y, Zhang LF, Zhang RJ, Kim J, Wong KS, Chen YW, Choy WCH,

ADVANCED FUNCTIONAL MATERIALS 31(19) 2010764 MAY 2021

Ultra-broadband reflectionless Brewster absorber protected by reciprocity

Luo J, Chu HC, Peng RW, Wang M, Li JS, Lai, Y

LIGHT-SCIENCE & APPLICATIONS 10(1) 89 APR 23 2021

Lithiophilic diffusion barrier layer on stainless steel mesh for dendrite suppression and stable lithium metal anode

Li YY, Min YX, Liang JG, Liu ZJ, Yuan B, Xu L, Luo ZT, Zhu M

APPLIED MATERIALS TODAY 22 100896 MAR 2021

WMINST Bylines (2001 – Present)

Evaporation-Free Organic Solar Cells with High Efficiency Enabled by Dry and Nonimmersive Sintering Strategy

He XJ, Wang Y, Zhang LF, Zhang RJ, Kim J, Wong KS, Chen, YW, Choy WCH

ADVANCED FUNCTIONAL MATERIALS 2010764 FEB 2021

Elimination of Uremic Toxins by Functionalized Graphene-Based Composite Beads for Direct Hemoperfusion

Tyagi A, Ng YW, Tamtaji M, Abidi IH, Li JW, Rehman F, Hossain MD, Cai YT, Liu ZJ, Galligan PR, Luo SJ, Zhang K, Luo ZT

ACS APPLIED MATERIALS & INTERFACES 13 (5) 5955-5965 FEB 10 2021

Polycrystalline Few-Layer Graphene as a Durable Anticorrosion Film for Copper

Zhao ZJ, Hou TY, Wu NN, Jiao SP, Zhou K, Yin J, Suk JW, Cui X, Zhang MF, Li SP, Qu Y, Xie WG, Li XB, Zhao CX, Fu Y, Hong RD, Guo SS, Lin DQ, Cai WW, Mai WJ, Luo ZT, Tian YT, Lai Y, Liu YY, Colombo, L, Hao YF

NANO LETTERS 21 (2) 1161-1168 JAN 27 2021

Uncovering the Electron-Phonon Interplay and Dynamical Energy-Dissipation Mechanisms of Hot Carriers in Hybrid Lead Halide Perovskites

Chan CCS, Fan KZ, Wang H, Huang ZF, Novko D, Yan KY, Xu JB, Choy WCH Loncaric, I, Wong KS

ADVANCED ENERGY MATERIALS 11 (9) 2003071 MAR 2021

Strong geometry dependence of the Casimir force between interpenetrated rectangular gratings

Wang MK, Tang L, Ng CY, Messina R, Guizal B, Crosse JA, Antezza M, Chan CT, Chan HB

NATURE COMMUNICATIONS 12 (1) 600 JAN 26 2021

Trap-Assisted Charge Storage in Titania Nanocrystals toward Optoelectronic Nonvolatile Memory

Sun ZH, Li JH, Liu CM, Yang SH, Yan F

NANO LETTERS 21 (1) 723-730 JAN 13 2021

Aligned Graphene Mesh-Supported Double Network Natural Hydrogel Conduit Loaded with Netrin-1 for Peripheral Nerve Regeneration

Huang Q, Cai YT, Zhang X, Liu JC, Liu ZJ, Li B, Wong HL, Xu F, Sheng LY, Sun DZ, Qin JB, Luo ZT, Lu XW

ACS APPLIED MATERIALS & INTERFACES 13 (1) 112-122 JAN 13 2021

WMINST Bylines (2001 – Present)

Revealing high temperature stability of platinum nanocatalysts deposited on graphene oxide by in-situ TEM

Ying ZH, Diao JY, Wang S, Cai XB, Cai Y, Liu HY, Wang N
MATERIALS CHARACTERIZATION 170 110706 DEC 2020

Quantitative measurement and mechanism analysis of the high-efficiency laser propulsion of a graphene sponge

Wang L, Tam WY, Zhao QL, Wang X
OPTICS EXPRESS 28 (23) 33869-33875 NOV 9 2020

Machine Prediction of Topological Transitions in Photonic Crystals

Wu B, Ding K, Chan CT, Chen YT
PHYSICAL REVIEW APPLIED 14 (4) 044032 OCT 19 2020

Charge and energy transfer of quantum emitters in 2D heterostructures

Xu ZQ, Mendelson N, Scott JA, Li C, Abidi IH, Liu HW, Luo ZT, Aharonovich I, Toth M
2D MATERIALS 7 (3) 031001 JUL 2020

Highly Reversible Sodiation/Desodiation from a Carbon-Sandwiched SnS₂ Nanosheet Anode for Sodium Ion Batteries

Liu ZJ, Daali A, Xu GL, Zhuang MH, Zuo XB, Sun CJ, Liu YZ, Cai YT, Hossain MD, Liu HW, Amine K, Luo ZT
NANO LETTERS 20 (5) 3844-3851 MAY 13 2020

Enhancement of MoTe₂ near-infrared absorption with gold hollow nanorods for photodetection

You JW, Ye Y, Cai K, Zhou DM, Zhu HM, Wang RY, Zhang QF, Liu HW, Cai YT, Lu D, Kim JK, Gan L, Zhai TY, Luo ZT
NANO RESEARCH 13 (6) 1636-1643 MAY 2020

III-V micro- and nano-lasers deposited on amorphous SiO₂

Han Y, Yan Z, Ng WK, Xue Y, Ng KW, Wong KS, Lau KM
APPLIED PHYSICS LETTERS 116 (17) APR 27 2020

Circular Phase-Dichroism of Chiral Metasurface Using Birefringent Interference

Zhang RR, Zhao QL, Wang X, Li JS, Tam WY
NANO LETTERS 20 (4) 2681-2687 APR 8 2020

WMINST Bylines (2001 – Present)

Robust Simultaneous Multiwavelength Bulk Laser based on Yb:LaMgB₅O₁₀ Crystal: from Continuous Wave to Ultrashort Pulses

Lou F, Jia CY, Sun SJ, Huang YS, Wang X, Zhang SY, Sheng XY, Lu MM, Zhang BT, Yang KJ, Tam WY, Teng B, Lin ZB, He JL

OPTICAL MATERIALS EXPRESS 10 (4) 1061 APR 1 2020

Expediting Hydrogen Evolution through Topological Surface States on Bi₂Te₃

Qu Q, Liu B, Liang J, Li H, Wang JN, Pan D, Sou IK

ACS CATALYSIS 10 (4) 2656-2666 FEB 21 2020

Bufferless 1.5 μ m III-V lasers grown on Si-photonics 220 nm silicon-on-insulator platforms

Han Y, Yan Z, Ng WK, Xue Y, Wong KS, Lau KM

OPTICA 7 (2) 148-153 FEB 20 2020

Angle-Resolved Thermal Emission Spectroscopy Characterization of Non-Hermitian Metacrystals

Zhong F, Ding K, Zhang Y, Zhu S, Chan CT, Liu H

PHYSICAL REVIEW APPLIED 13 (1) 014071 JAN 31 2020

Exceptional cones in 4D parameter space

Wang Q, Ding K, Liu H, Zhu SN, Chan CT

OPTICS EXPRESS 28 (2) 1758-1770 JAN 20 2020

Einstein-Podolsky-Rosen Energy-Time Entanglement of Narrow-Band Biphotons

Mei YF, Zhou YR, Zhang SC, Li JF, Liao KY, Yan H, Zhu SL, Du SW

PHYSICAL REVIEW LETTERS 124 (1) 010509 JAN 10 2020

Giant Casimir Torque between Rotated Gratings and the $\theta=0$ Anomaly

Antezza M, Chan HB, Guizal B, Marachevsky VN, Messina R, Wang MK

PHYSICAL REVIEW LETTERS 124 (1) 013903 JAN 7 2020

Studies on the origin of the interfacial superconductivity of Sb₂Te₃/Fe_{1+y}Te heterostructures

Liang J, Zhang YJ, Yao X, Li H, Li ZX, Wang JN, Chen YZ, Sou IK

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 117 (1) 221-227 JAN 7 2020

WMINST Bylines (2001 – Present)

Exceptional point-based plasmonic metasurfaces for vortex beam generation

Leung HM, Gao WS, Zhang RR, Zhao QL, Wang X, Chan CT, Li JS, Tam WY

OPTICS EXPRESS 28 (1) 503-510 JAN 6 2020

Revealing the mechanism of DNA passing through graphene and boron nitride nanopores

Tyagi, A, Chu K, Hossain MD, Abidi IH, Lin WY, Yan YW, Zhang K, Luo ZT

NANOSCALE 11 (48) 23438-23448 DEC 28 2019

Tunable interface state in one dimensional composite photonic structure

Gao D, Mao WT, Zhang RR, Liu J, Zhao QL, Tam WY, Wang X

OPTICS COMMUNICATIONS 453 124324 DEC 15 2019

In-situ control of electrical properties of nanoelectromechanical resonators by electromigration for self-sustained oscillations

Sun F, Zou J, Chan HB

APPLIED PHYSICS LETTERS 115 (20) 203101 NOV 11 2019

delta-Quench Measurement of a Pure Quantum-State Wave Function

Zhang SC, Zhou YR, Mei YF, Liao KY, Wen YL, Li JF, Zhang XD, Du SW, Yan H, Zhu SL

PHYSICAL REVIEW LETTERS 123 (19) 190402 NOV 6 2019

Characterization of free-standing 1D photonic crystals using an effective medium approach

Liu J, Gao D, Mao WT, Zhao QL, Ma HR, Wang YP, Wang X, Yung TK, Tam WY

OPTICS LETTERS 44 (19) 4853-4856 OCT 1 2019

Enhanced superconductivity in Bi₂Se₃/Nb heterostructures

Zhang HC, Li H, He HT, Wang JN

APPLIED PHYSICS LETTERS 115 (11) 113101 SEP 9 2019

Frequency stabilization and noise-induced spectral narrowing in resonators with zero dispersion

Huang L, Soskin, SM, Khovanov IA, Mannella R, Ninios K, Chan HB

NATURE COMMUNICATIONS 10 3930 SEP 2 2019

Room temperature III-V nanolasers with distributed Bragg reflectors epitaxially grown on (001) silicon-on-insulators

Han Y, Ng WK, Xue Y, Wong KS, Lau KM

PHOTONICS RESEARCH 7 (9) 1081 SEP 1 2019

WMINST Bylines (2001 – Present)

Characterization of Thermal Bump Due to Surface Plasmon Resonance

Yung TK, Zhang RR, Zhao QL, Wang X, Gao WS, Tam WY

OPTICS EXPRESS 27 (15) 21718 JUL 22 2019

Selective Defect Formation in Hexagonal Boron Nitride

Abidi IH, Mendelson N, Toan TT, Tyagi A, Zhuang MH, Weng LT, Ozyilmaz B, Aharonovich I, Toth M, Luo

ZT

ADVANCED OPTICAL MATERIALS 7 (13) 1900397 JUL 2019

Selenium Edge as a Selective Anchoring Site for Lithium Sulfur Batteries with MoSe₂/Graphene-Based Cathodes

Wong HL, Ou XW, Zhuang MH, Liu ZJ, Hossain, Md D, Cai YT, Liu HW, Lee HB, Wang CZ, Luo, ZT

ACS APPLIED MATERIALS & INTERFACES 11 (22) 19986 JUN 5 2019

Formation of Fe-Te Nanostructures during in Situ Fe Heavy Doping of Bi₂Te₃

Liang J, Yao X, Zhang YJ, Chen F, Chen YZ, Sou IK

NANOMATERIALS 9 (5) 782 MAY 2019

Measuring Circular Phase-dichroism of Chiral Metasurface

Zhang RR, Zhao QL, Wang X, Gao WS, Li J, Tam WY

NANOPHOTONICS 8 (5) 909 MAY 2019

Efficient Quantum Memory for Single-photon Polarization Qubits

Wang YF, Li JF, Zhang SC, Su KY, Zhou YR, Liao KY, Du SW, Yan H, Zhu SL

NATURE PHOTONICS 13 (5) 346 MAY 2019

Methacrytated Gelatin-embedded Fabrication of 3D Graphene-supported Co₃O₄ Nanoparticles for Water Splitting

Zhuang MH, Liu ZJ, Ding Y, Xu GL, Li YH, Tyagi A, Zhang XY, Sun CJ, Ren Y, Ou XW, Wong HL, Cai YT,

Wu RZ, Abidi IH, Zhang QC, Xu F, Amine K, Luo ZT

NANOSCALE 11 (14) 6866 APR 14 2019

Edge-Epitaxial Growth of Graphene on Cu with a Hydrogen-Free Approach

Wu RZ, Ding Y, Yu KM, Zhou K, Zhu ZY, Ou XW, Zhang QC, Zhuang MH, Li WD, Xu ZP, Altman Michael

S, Luo ZT

CHEMISTRY OF MATERIALS 31 (7) 2555 APR 9 2019

WMINST Bylines (2001 – Present)

Quantitative Analysis of Weak Antilocalization Effect of Topological Surface States in Topological Insulator BiSbTeSe₂

Li H, Wang HW, Li Y, Zhang HC, Zhang S, Pan XC, Jia B, Song FG, Wang JN
NANO LETTERS 19 (4) 2450 APR 2019

MBE-grown Zincblende MnSe_{1-x}Te_x Thin Films on ZnTe

Cheng MK, Liang J, Xu J, Lai YH, Ho SK, Tam KW, Sou IK
JOURNAL OF CRYSTAL GROWTH 511 19 APR 1 2019

Rational Design of Graphene-Supported Single Atom Catalysts for Hydrogen Evolution Reaction

Hossain Md D, Liu ZJ, Zhuang MH, Yan XX, Xu GL, Gadre CA, Tyagi A, Abidi IH, Sun CJ, Wong HL, Guda A, Hao YF, Pan XQ, Amine K, Luo ZT
ADVANCED ENERGY MATERIALS 9 (10) 1803689 MAR 13 2019

Telecom InP/InGaAs Nanolaser Array Directly Grown on (001) Silicon-on-insulator

Han Y, Ng WK, Xue Y, Li Q, Wong KS, Lau KM
OPTICS LETTERS 44 (4) 767 FEB 15 2019

Strong Negative Nonlinear Friction from Induced Two-phonon Processes in Vibrational Systems

Dong X, Dykman MI, Chan HB
NATURE COMMUNICATIONS 9 3241 AUG 13 2018

Electromagnetic Impurity-Immunity Induced by Parity-Time Symmetry

Luo J, Li Jensen, Lai Y
PHYSICAL REVIEW X 8 (3) 031035 AUG 3 2018

Measurement of Mechanical Deformations Induced by Enhanced Electromagnetic Stress on a Parallel Metallic-Plate System

Wang M, Wang S, Zhang Q, Chan CT, Chan HB
PHYSICAL REVIEW LETTERS 121 (3) 035502 JUL 17 2018

An Ultralight Graphene Honeycomb Sandwich for Stretchable Light-Emitting Displays

Wang ZY, Liu X, Shen X, Han NM, Wu Y, Zheng QB, Jia JJ, Wang N, Kim JK
ADVANCED FUNCTIONAL MATERIALS 28 (19) 1707043 MAY 9 2018

Three dimensional chiral plasmon rulers based on silver nanorod trimers

Han CR, Yang LC, Ye PA, Parrott EPJ, Pickwell-Macpherson E, Tam WY
OPTICS EXPRESS 26 (8) 10315-10325 APR 16 2018

WMINST Bylines (2001 – Present)

Nanotextured Spikes of α -Fe₂O₃/NiFe₂O₄ Composite for Efficient Photoelectrochemical Oxidation of Water

Hussain S, Tayakoli MM, Waleed A, Virk US, Yang SH, Waseem A, Fan ZY, Nadeem MA

LANGMUIR 34 (12) 3555-3564 MAR 27 2018

A Compact Solid-State UV Flame Sensing System Based on Wide-Gap II-VI Thin Film Materials

Liu Y, Pang LX, Liang J, Cheng MK, Liang JJ, Chen JS, Lai YH, Sou IK

IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS 65 (3) 2737-2744 MAR 2018

Enhancing Full Water-Splitting Performance of Transition Metal Bifunctional Electrocatalysts in Alkaline Solutions by Tailoring CeO₂-Transition Metal Oxides-Ni Nanointerfaces

Long X, Lin H, Zhou D, An YM, Yang SH

ACS ENERGY LETTERS 3 (2) 290-296 FEB 2018

Large-area Epitaxial Growth of MoSe₂ via an Incandescent Molybdenum Source

Cheng MK, Liang J, Lai YH, Pang LX, Liu Y, Shen JY, Hou JQ, He QL, Xu BC,, Chen JS, Wang G, Liu C, Lortz R, Sou IK

NANOTECHNOLOGY 28 (45) 455601 NOV 10 2017

Spray Pyrolysis Deposition of ZnFe₂O₄/Fe₂O₃ Composite Thin Films on Hierarchical 3-D Nanospikes for Efficient Photoelectrochemical Oxidation of Water

Hussain S, Hussain S, Waleed A, Tavakoli MM, Yang SH, Rauf MK, Fan ZY, Nadeem MA

JOURNAL OF PHYSICAL CHEMISTRY C 121 (34) 18360 AUG 31 2017

Concurrent fast growth of sub-centimeter single-crystal graphene with controlled nucleation density in a confined channel

Wu R, Pan J, Ou XW, Zhang QC, Ding Y, Sheng P, Luo ZT

NANOSCALE 9 (27) 9631 2017

Hydrolysis-Coupled Redox Reaction to 3D Cu/Fe₃O₄ Nanorod Array Electrodes for High-Performance Lithium-Ion Batteries

Gu HY, Zhang YM, Huang MQ, Chen F, Yang ZH, Fan XM, Li S, Zhang WX, Yang SH, Lo M

INORGANIC CHEMISTRY 56 (14) 7657 JUL 17 2017

Regulating Top-Surface Multilayer/Single-Crystal Graphene Growth by "Gettering" Carbon Diffusion at Backside of the Copper Foil

Abidi Irfan H, Liu YY, Pan J, Tyagi A, Zhuang MH, Zhang QC, Cagang Aldrine A, Weng LT, Sheng P, Goddard William A, Luo ZT

ADVANCED FUNCTIONAL MATERIALS 27 (23) JUN 20 2017

WMINST Bylines (2001 – Present)

Correction of numerical aperture effect on reflection phase measurement using a thick-gap Fabry-Perot etalon

Zhao QL, Yung TK, Wang X, Tam WY

APPLIED OPTICS 56 (15) 4392 MAY 20 2017

Controlling interface states in 1D photonic crystals by tuning bulk geometric phases

Gao WS, Xiao M, Chen BJ, Pun, Edwin YB, Chan CT, Tam WY

OPTICS LETTERS 42 (8) 1500 APR 15 2017

Broadband optical magnetism in chiral metallic nanohole arrays by shadowing vapor deposition

Han CR, Tam WY

APPLIED PHYSICS LETTERS 109 (25) 251102 DEC 19 2016

Self-Assembled Formation of Well-Aligned Cu-Te Nano-Rods on Heavily Cu-Doped ZnTe Thin Films

Liang J, Cheng MK, Lai YH, Wei, GL, Yang SD, Wang G, Ho SK, Tam KW, Sou IK

Nanoscale Research Letters, DOI: 10.1186/s11671-016-1741-x, NOV 29 2016

Measurement of reflection phase using thick-gap Fabry-Perot etalon

Yung TK, Gao WS, Leung HM, Zhao QL, Wang X, Tam WY

APPLIED OPTICS 55 (26) 7301-7306 SEP 2016

Current driven vortex-antivortex pair breaking and vortex explosion in the Bi₂Te₃/FeTe interfacial superconductor

Dean CL, Kunchur MN, He QL, Liu H, Wang J, Lortz R, Sou IK

PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS 527 46-49 AUG 15 2016

Robust two-dimensional superconductivity and vortex system in Bi₂Te₃/FeTe heterostructures

Liu HC, Li H, He QL, Sou IK, Goh SK, Wang JN

SCIENTIFIC REPORTS 6 26168 MAY 17 2016

Transition metal based layered double hydroxides tailored for energy conversion and storage

Long X, Wang ZL, Xiao S, An YM, Yang SH

MATERIALS TODAY 19 (4) 213-226 MAY 2016

Solvent Engineering Boosts the Efficiency of Paintable Carbon-Based Perovskite Solar Cells to Beyond 14%

Chen HN, Wei ZH, He HX, Zheng XL, Wong KS, Yang SH

ADVANCED ENERGY MATERIALS 6 (8) 1502087 APR 20 2016

WMINST Bylines (2001 – Present)

A General and Mild Approach to Controllable Preparation of Manganese-Based Micro- and Nanostructured Bars for High Performance Lithium-Ion Batteries

Ma G, Li S, Zhang WX, Yang ZH, Liu SL, Fan XM, Chen F, Tian Y, Zhang WB, Yang SH, Li M
ANGEWANDTE CHEMIE-INTERNATIONAL EDITION 55 (11) 3667-3671 MAR 7 2016

Probing the electronic states and impurity effects in black phosphorus vertical heterostructures

Chen XL, Wang L, Wu YY, Gao H, Wu YB, Qin GH, Wu ZF, Han Y, Xu SG, Han TY, Ye WG, Lin JXZ, Long G, He YH, Cai Y, Ren W, Wang N
2D MATERIALS 3 (1) 015012 MAR 2016

Negative compressibility in graphene-terminated black phosphorus heterostructures

Wu YY, Chen XL, Wu ZF, Xu SG, Han TY, Lin JXZ, Skinner B, Cai Y, He YH, Cheng C, Wang N
PHYSICAL REVIEW B 93 (3) 035455 JAN 29 2016

Giant plasmonic circular dichroism in Ag staircase nanostructures

Han CR, Leung HM, Chan CT, Tam WY
OPTICS EXPRESS 23 (26) 33065-33078 DEC 28 2015

Direct Measurement of Optical Force Induced by Near-Field Plasmonic Cavity Using Dynamic Mode AFM

Guan DS, Hang ZH, Marcet Z, Liu H, Kravchenko I, Chan CT, Chan HB, Tong P
SCIENTIFIC REPORTS 5 16216 NOV 20 2015

Determination of Zak phase by reflection phase in 1D photonic crystals

Gao WS, Xiao M, Chan CT, Tam WY
OPTICS LETTERS 40 (22) 5259 NOV 15 2015

High-temperature expansion for interacting fermions

Sun MY, Leyronas, X
PHYSICAL REVIEW A 92 (5) 053611 NOV 13 2015

High performance CaS solar-blind ultraviolet photodiodes fabricated by seed-layer-assisted growth

He QL, Lai YH, Liu Y, Beltjens E, Qi J, Sou IK
APPLIED PHYSICS LETTERS 107 (18) 181903 NOV 2 2015

Metallic Iron-Nickel Sulfide Ultrathin Nanosheets As a Highly Active Electrocatalyst for Hydrogen Evolution Reaction in Acidic Media

Long X, Li GX, Wang ZL, Zhu HY, Zhang T, Xiao S, Guo WY, Yang SH
JOURNAL OF THE AMERICAN CHEMICAL SOCIETY 137 (37) 11900-11903 SEP 23 2015

WMINST Bylines (2001 – Present)

Anisotropic magnetic responses of a 2D-superconducting Bi₂Te₃/FeTe heterostructure

He QL, He MQ, Shen JY, Lai YH, Liu Y, Liu HC, He HT, Wang G, Wang JN, Lortz R, Sou IK

JOURNAL OF PHYSICS-CONDENSED MATTER 27 (34) 345701 SEP 4 2015

Detection of interlayer interaction in few-layer graphene

Wu ZF, Han Y, Lin JXZ, Zhu W, He MQ, Xu SG, Chen XL, Lu HH, Ye WG, Han TY, Wu YY, Long G, Shen

JY, Huang R, Wang L, He YH, Cai Y, Lortz R, Su DS, Wang N

PHYSICAL REVIEW B 92 (7) 075408 AUG 6 2015

A scalable electrodeposition route to the low-cost, versatile and controllable fabrication of perovskite solar cells

Chen HN, Wei ZH, Zheng XL, Yang SH

NANO ENERGY 15 216-226 JUL 2015

High-quality sandwiched black phosphorus heterostructure and its quantum oscillations

Chen XL, Wu YY, Wu ZF, Han Y, Xu SG, Wang L, Ye WG, Han TY, He YH, Cai Y, Wang N

NATURE COMMUNICATIONS 6 7315 JUN 2015

Probing Defect-Induced Midgap States in MoS₂ Through Graphene-MoS₂ Heterostructures

Han Y, Wu ZF, Xu SG, Chen XL, Wang L, Wang Y, Xiong W, Han TY, Ye WG, Lin JXZ, ; Cai Y, Ho KM, He YH, Su DS, Wang N

ADVANCED MATERIALS INTERFACES 2 (8) MAY 22 2015

Facile general strategy toward hierarchical mesoporous transition metal oxides arrays on three-dimensional macroporous foam with superior lithium storage properties

Zhang QB, Wang JX, Dong JC, Ding F, Li XH, Zhang B, Yang SH, Zhang KL

NANO ENERGY 13 77-91 APR 2015

van der Waals Epitaxial Growth of Atomically Thin Bi₂Se₃ and Thickness-Dependent Topological Phase Transition

Xu SG, Han Y, Chen XL, Wu ZF, Wang L, Han TY, Ye WG, Lu HH, Long G, Wu YY, Lin JX, Cai Y, Ho KM, He YH, Wang N

NANO LETTERS 15 (4) 2645-2651 APR 2015

Self-Sustained Cycle of Hydrolysis and Etching at Solution/Solid Interfaces: A General Strategy To Prepare Metal Oxide Micro-/Nanostructured Arrays for High-Performance Electrodes

Zhang YM, Zhang WX, Yang ZH, Gu HY, Zhu Q, Yang SH, Li M

ANGEWANDTE CHEMIE-INTERNATIONAL EDITION 54 (13) 3932-3936 MAR 23 2015

WMINST Bylines (2001 – Present)

1D to 3D dimensional crossover in the superconducting transition of the quasi-one-dimensional carbide superconductor Sc_3CoC_4

He MQ, Wong CH, Shi D, Tse PL, Scheidt EW, Eickerling G, Scherer W, Sheng P, Lortz R

JOURNAL OF PHYSICS-CONDENSED MATTER 27 (7) 075702 FEB 25 2015

Plasmonic ultra-broadband polarizers based on Ag nano wire-slit arrays

Han CR, Tam WY

APPLIED PHYSICS LETTERS 106 (8) 081102 FEB 23 2015

Chirality from shadowing deposited metallic nanostructures

Han CR, Tam WY

PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS 13 (50-57) JAN 2015

Controlled removal of monolayers for bilayer graphene preparation and visualization

Gan L, Zhang HJ, Wu RZ, Ding Y, Sheng P, Luo ZT

RSC ADVANCES 5 (32) 25471-25476 2015

Grain size control in the fabrication of large single-crystal bilayer graphene structures

Gan L, Zhang HJ, Wu RZ, Zhang QC, Ou XW, Ding Y, Sheng P, Luo ZT

NANOSCALE 7 (6) 2391-2399 2015

Probing the electron states and metal-insulator transition mechanisms in molybdenum disulphide vertical heterostructures

Chen XL, Wu ZF, Xu SG, Wang L, Huang R, Han Y, Ye WG, Xiong W, Han TY, Long G, Wang Y, He YH, Cai Y, Sheng P, Wang N

NATURE COMMUNICATIONS 6 6088 JAN 2015

Co intake mediated formation of ultrathin nanosheets of transition metal LDH-an advanced electrocatalyst for oxygen evolution reaction

Long X, Xiao S, Wang ZL, Zheng XL, Yang SH

CHEMICAL COMMUNICATIONS 51 (6) 1120-1123 2015

Side-gate modulation effects on high-quality BN-Graphene-BN nanoribbon capacitors

Wang Y, Chen XL, Ye WG, Wu ZF, Han Y, Han TY, He YH, Cai Y, Wang N

APPLIED PHYSICS LETTERS 105 (24) 243507 DEC 15 2014

Epitaxial Growth of ZnO Nanodisks with Large Exposed Polar Facets on Nanowire Arrays for Promoting Photoelectrochemical Water Splitting

Chen HN, Wei ZH, Yan KY, Bai Y, Zhu ZL, Zhang T, Yang SH

SMALL 10 (22) 4760-4769 NOV 26 2014

WMINST Bylines (2001 – Present)

Inkjet Printing and Instant Chemical Transformation of a CH₃NH₃PbI₃/Nanocarbon Electrode and Interface for Planar Perovskite Solar Cells

Wei ZH, Chen HN, Yan KY, Yang SH

ANGEWANDTE CHEMIE-INTERNATIONAL EDITION 53 (48) 13239-13243 NOV 24 2014

Cost-efficient clamping solar cells using candle soot for hole extraction from ambipolar perovskites

Wei ZH, Yan KY, Chen HN, Yi Y, Zhang T, Long X, Li JK, Zhang LX, Wang JN, Yang SH

ENERGY & ENVIRONMENTAL SCIENCE 7 (10) 3326-3333 OCT 2014

Negative correlation between charge carrier density and mobility fluctuations in graphene

Lu JM, Pan J, Yeh SS, Zhang HJ, Zheng Y, Chen QH, Wang Z, Zhang B, Lin JJ, Sheng P

PHYSICAL REVIEW B 90 (8) 085434 AUG 26 2014

Unveiling Two Electron-Transport Modes in Oxygen-Deficient TiO₂ Nanowires and Their Influence on Photoelectrochemical Operation

Chen HN, Wei ZH, Yan KY, Bai Y, Yang SH

JOURNAL OF PHYSICAL CHEMISTRY LETTERS 5 (16) 2890-2896 AUG 21 2014

A Strongly Coupled Graphene and FeNi Double Hydroxide Hybrid as an Excellent Electrocatalyst for the Oxygen Evolution Reaction

Long X, Li JK, Xiao S, Yan KY, Wang ZL, Chen HN, Yang SH

ANGEWANDTE CHEMIE-INTERNATIONAL EDITION 53 (29) 7584-7588 JUL 14 2014

Two-dimensional superconductivity at the interface of a Bi₂Te₃/FeTe heterostructure

He QL, Liu HC, He MQ, Lai YH, He HT, Wang G, Law KT, Lortz R, Wang JN, Sou IK

NATURE COMMUNICATIONS 5 4247 JUN 2014

Additive-Free Shape-Invariant Nano-to-Micron Size-Tuning of Cu₂O Cubic Crystals by Square-Wave Voltammetry

Guo XY, Lv WQ, Li X

JOURNAL OF PHYSICAL CHEMISTRY C 118(20) 11062-11077 MAY 22 2014

Optical activities of large-area SU8 microspirals fabricated by multibeam holographic lithography

Wang X, Gao WS, Hung J, Tam WY

APPLIED OPTICS 53(11) 2425-2430 APR 10 2014

WMINST Bylines (2001 – Present)

Space-Confined Growth of MoS₂ Nanosheets within Graphite: The Layered Hybrid of MoS₂ and Graphene as an Active Catalyst for Hydrogen Evolution Reaction

Zheng XL, Xu JB, Yan KY, Wang H, Wang ZL, Yang SH

CHEMISTRY OF MATERIALS 26(7) 2344-2353 APR 8 2014

Solution-Processed, Barrier-Confined, and 1D Nanostructure Supported Quasi-quantum Well with Large Photoluminescence Enhancement

Yan KY, Zhang LX, Kuang Q, Wei ZH, Yi Y, Wang JN, Yang SH

ACS NANO 8(4) 3771-3780 APR 2014

Three-Dimensional Graphitized Carbon Nanovesicles for High- Performance Supercapacitors Based on Ionic Liquids

Peng CX, Wen ZB, Qin Y, Schmidt-Mende L, Li CZ, Yang SH, Shi DL, Yang JH

CHEMSUSCHEM 7(3) 777-784 MAR 2014

CuO nanostructures: Synthesis, characterization, growth mechanisms, fundamental properties, and applications

Zhang QB, Zhang KL, Xu DG, Yang GC, Huang H, Nie F, Liu CM, Yang SH

PROGRESS IN MATERIALS SCIENCE 60 208-337 MAR 2014

AgI Microplate Monocrystals with Polar {0001} Facets: Spontaneous Photocarrier Separation and Enhanced Photocatalytic Activity

Kuang Q, Zheng XL, Yang SH

CHEMISTRY-A EUROPEAN JOURNAL 20(9) 2637-2645 FEB 24 2014

Detection of resonant impurities in graphene by quantum capacitance measurement

Wang L, Chen XL, Zhu W, Wang Y, Zhu C, Wu ZF, Han Y, Zhang MW, Li W, He YH, Wang N

PHYSICAL REVIEW B 89(7) 075410 FEB 10 2014

Measurement of Enhanced Radiation Force on a Parallel Metallic-Plate System in the Microwave Regime

Marcet Z, Hang ZH, Wang SB, Ng J, Chan CT, Chan HB

PHYSICAL REVIEW LETTERS 112(4) 045504 JAN 28 2014

From Marine Plants to Photovoltaic Devices

Wang L, Shi YT, Bai XG, Xing YJ, Zhang H, Wang L, Guo W, Wang N, Ma TL, Graetzel M

ENERGY & ENVIRONMENTAL SCIENCE 7(1) 343-346 JAN 2014

Modeling quasi-3D chiral metamaterials fabricated by shadowing vapor deposition

Leung HM, Han CR, Li YH, Chan CT, Tam WY

JOURNAL OF OPTICS 16(1) 015102 JAN 2014

WMINST Bylines (2001 – Present)

MFe₂O₄ and MFe@Oxide Core-Shell Nanoparticles Anchored on N-Doped Graphene Sheets for Synergistically Enhancing Lithium Storage Performance and Electrocatalytic Activity for Oxygen Reduction Reactions

Xiao JW, Xu GL, Sun SG, Yang SH

PARTICLE & PARTICLE SYSTEMS CHARACTERIZATION 30(10) 893-904 OCT 2013

Circular dichroism in double-layer metallic crossed-gratings (vol 13, 115101, 2011)

Gao WS, Leung HM, Li YH, Chen H, Tam WY

JOURNAL OF OPTICS 15(10) 109502 OCT 2013

Surface Reactivity Enhancement on a Pd/Bi₂Te₃ Heterostructure through Robust Topological Surface States

He QL, Lai YH, Lu Y, Law KT, Sou IK

SCIENTIFIC REPORTS 3 2497 AUG 23 2013

Electron-electron interactions in monolayer graphene quantum capacitors

Chen XL, Wang L, Li W, Wang Y, Wu ZF, Zhang MW, Han Y, He YH, Wang N

NANO RESEARCH 6(8) 619-626 AUG 2013

Surface Structure Dependent Electrocatalytic Activity of Co₃O₄ Anchored on Graphene Sheets toward Oxygen Reduction Reaction

Xiao JW, Kuang Q, Yang SH, Xiao F, Wang S, Guo L

SCIENTIFIC REPORTS 3 2300 JUL 29 2013

Chiral metamaterials by shadowing vapor deposition

Han CR, Leung HM, Tam WY

JOURNAL OF OPTICS 15(7) 072101 JUL 2013

Negative Quantum Capacitance Induced by Midgap States in Single-layer Graphene

Wang L, Wang Y, Chen XL, Zhu W, Zhu C, Wu ZF, Han Y, Zhang MW, Li W, He YH, Xiong W, Law KT, Su DS, Wang N

SCIENTIFIC REPORTS 3(2041) JUN 20 2013

Negative compressibility observed in graphene containing resonant impurities

Chen XL, Wang L, Li W, Wang Y, He YH, Wu ZF, Han Y, Zhang MW, Xiong W, Wang N

APPLIED PHYSICS LETTERS 102(20) 203103 MAY 20 2013

WMINST Bylines (2001 – Present)

Template Synthesis of Single-Crystal-Like Porous SrTiO₃ Nanocube Assemblies and Their Enhanced Photocatalytic Hydrogen Evolution

Kuang Q, Yang SH

ACS APPLIED MATERIALS & INTERFACES 5(9) 3683-3690 MAY 8 2013

"Giant" Enhancement of the Upper Critical Field and Fluctuations above the Bulk T_c in Superconducting Ultrathin Lead Nanowire Arrays

He MQ, Wong CH, Tse PL, Zheng Y, Zhang HJ, Lam FLY, Sheng P, Hu XJ, Lortz R

ACS NANO 7(5) 4187-4193 MAY 2013

Density of States and Its Local Fluctuations Determined by Capacitance of Strongly Disordered Graphene

Li W, Chen XL, Wang L, He YH, Wu ZF, Cai Y, Zhang MW, Wang Y, Han Y, Lortz RW, Zhang ZQ, Sheng P, Wang N

SCIENTIFIC REPORTS 3 1772 MAY 2013

Molecular beam epitaxy-grown wurtzite MgS thin films for solar-blind ultra-violet detection

Lai YH, He QL, Cheung WY, Lok SK, Wong KS, Ho SK, Tam KW, Sou IK

APPLIED PHYSICS LETTERS 102 (17) 171104 APR 2013

Tuning the optical and electrical properties of hydrothermally grown ZnO nanowires by sealed post annealing treatment

Xu SG, Cheng C, Guo WH, He YH, Huang R, Du SW, Wang N

SOLID STATE COMMUNICATIONS 160 41-46 APR 2013

Electronic and optical properties of bundled single-walled carbon nanotubes investigated by the first-principles method

Cho TH, Su WS, Leung TC, Ren W, Chan CT

COMPUTER PHYSICS COMMUNICATIONS 184 (4) 1077-1085 APR 2013

Ultrarapid Sonochemical Synthesis of ZnO Hierarchical Structures: From Fundamental Research to High Efficiencies up to 6.42% for Quasi-Solid Dye-Sensitized Solar Cells

Shi YT, Zhu C, Wang L, Zhao CY, Li W, Fung KK, Ma TL, Hagfeldt A, Wang N

CHEMISTRY OF MATERIALS 25 (6) 1000-1012 MAR 2013

Luminescence enhancement of ZnO-core/a-SiN_x:H-shell nanorod arrays

Huang R, Xu SG, Guo YQ, Guo WH, Wang X, Song C, Song J, Wang L, Ho KM, Wang N

OPTICS EXPRESS 21 (5) 5891-5896 MAR 2013

WMINST Bylines (2001 – Present)

Comparative optical study of colloidal anatase titania nanorods and atomically thin wires

Susha AS, Lutich AA, Liu CM, Xu H, Zhang RQ, Zhong YC, Wong KS, Yang SH, Rogach AL

NANOSCALE 5 (4) 1465-1469 FEB 2013

Modification of electronic properties of top-gated graphene devices by ultrathin yttrium-oxide dielectric layers

Wang L, Chen XL, Wang Y, Wu ZF, Li W, Han Y, Zhang MW, He YH, Zhu C, Fung KK, Wang N

NANOSCALE 5 (3) 1116-1120 FEB 2013

Highly conductive polymer composites from room-temperature ionic liquid cured epoxy resin: effect of interphase layer on percolation conductance

Zhang XF, Sun HY, Yang C, Zhang K, Yuen MMF, Yang SH

RSC ADVANCES 3 (6) 1916-1921 2013 FEB 2013

Asymmetric ZnO Panel-Like Hierarchical Architectures with Highly Interconnected Pathways for Free-Electron Transport and Photovoltaic Improvements

Shi YT, Zhu C, Wang L, Li W, Fung KK, Wang N

CHEMISTRY-A EUROPEAN JOURNAL 19 (1) 282-287 JAN 2013

Factors affecting the shape of MBE-grown laterally aligned Fe nanowires

Lok, SK, Tian, JC, Wang YX, Lai YH, Lortz R, Petrovic A, Panagopoulos C, Wong GKL, Wang G, Sou IK

NANOTECHNOLOGY 23 (48) 485605 DEC 7 2012

Hierarchical WO₃ flowers comprising porous single-crystalline nanoplates show enhanced lithium storage and photocatalysis

Qiu YC, Xu GL, Kuang Q, Sun SG, Yang SH

NANO RESEARCH 5 (11) 826-832 NOV 2012

Circular dichroism in single-layered gold sawtooth gratings

Gao WS, Ng CY, Leung HM, Li YH, Chen H, Tam, WY

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA B-OPTICAL PHYSICS 29 (11) 3021-3026 NOV 2012

Dimensional crossover transition in a system of weakly coupled superconducting nanowires

Sun MY, Hou ZL, Zhang T, Wang Z, Shi W, Lortz R, Sheng P

NEW JOURNAL OF PHYSICS 14 103018 OCT 10 2012

Self-Limiting Assembly of Two-Dimensional Domains from Graphene Oxide at the Air/Water Interface

Zhang XF, Sun H, Yang SH

JOURNAL OF PHYSICAL CHEMISTRY C 116 (35) 19018-19024 SEP 6 2012

WMINST Bylines (2001 – Present)

Nanocomposites of Ni(OH)₂/Reduced Graphene Oxides with Controllable Composition, Size, and Morphology: Performance Variations as Pseudocapacitor Electrodes

Xiao JW, Yang SH

CHEMPLUSCHEM 77 (9) 807-816 SEP 2012

First-principles study of Dirac and Dirac-like cones in phononic and photonic crystals

Mei J, Wu Y, Chan CT, Zhang ZQ

PHYSICAL REVIEW B 86 (3) 035141 JUL 24 2012

Electron-Beam-Induced Elastic-Plastic Transition in Si Nanowires

Dai S, Zhao J, Xie L, Cai Y, Wang N, Zhu J

NANO LETTERS 12 (5) 2379-2385 MAY 2012

Rocksalt MgS solar blind ultra-violet detectors

Lai YH, Cheung WY, Lok SK, Wong GKL, Ho SK, Tam KW, Sou IK

AIP ADVANCES 2 (1) 012149 MAR 2012

Facile Ultrasonic Synthesis of CoO Quantum Dot/Graphene Nanosheet Composites with High Lithium Storage Capacity

Peng CX, Chen BD, Qin Y, Yang SH, Li CZ, Zuo YH, Liu SY, Yang JH

ACS NANO 6 (2) 1074-1081 FEB 2012

Effective control of photoluminescence from ZnO nanowires by a-SiN_x:H decoration

Huang R, Xu SG, Wang X, Guo WH, Song C, Song J, Ho KM, Du SW, Wang N

OPTICS LETTERS 37 (2) 211-213 JAN 15 2012

Visible range lasing in dye-doped doubly periodic layered structures in dichromate gelatin emulsions

Wang X, Kok MH, Lu WX, Lee JCW, Tam WY, Wong GKL, Chan CT

JOURNAL OF OPTICS 14 (1) 015104 JAN 2012

Investigating the Growth Mechanism of CdSe Nano-Tetrapods

Zhao LJ, Pang Q, Ge WK, Wang JN

INTEGRATED FERROELECTRICS 137 98-104 2012

Superconductivity in 4-Angstrom carbon nanotubes-a short review

Wang Z, Shi W, Lortz R, Sheng P

NANOSCALE 4 (1) 21-41 2012

WMINST Bylines (2001 – Present)

Bio-inspired synthesis: understanding and exploitation of the crystallization process from amorphous precursors

Xiao JW, Yang SH

NANOSCALE 4 (1) 54-65 2012

A self-entanglement mechanism for continuous pulling of carbon nanotube yarns

Zhu C, Cheng C, He YH, Wang L, Wong, TL, Fung KK, Wang N

CARBON 49 (15) 4996-5001 DEC 2011

Circular dichroism in double-layer metallic crossed-gratings

Gao WS, Leung HM, Li YH, Chen H, Tam WY

JOURNAL OF OPTICS 13 (11) 115101 NOV 2011

Superconducting transitions of intrinsic arrays of weakly coupled one-dimensional superconducting chains: the case of the extreme quasi-1D superconductor Ti(2)Mo(6)Se(6)

Bergk B, Petrovic AP, Wang Z, Wang Y, Salloum D, Gougeon P, Potel M, Lortz R

NEW JOURNAL OF PHYSICS 13 103018 OCT 14 2011

Nitrogen deep acceptors in ZnO nanowires induced by ammonia plasma

Huang R, Xu SG, Guo WH, Wang L, Song J, Ng TW, Huang JA, Jianan, Lee, ST Lee, Shuit-Tong, Du, SW, Wang N

APPLIED PHYSICS LETTERS 99 (14) 143112 OCT 3 2011

Optical activities of micro-spiral photonic crystals fabricated by multi-beam holographic lithography

Hung J, Gao WS, Tam WY

JOURNAL OF OPTICS 13 (9) 095102 SEP 2011

Enhancement of Hole Mobility of Poly(3-hexylthiophene) Induced by Titania Nanorods in Composite Films

Sun ZH, Li JH, Liu CM, Yang SH, Yan F

ADVANCED MATERIALS 23 (32) 3648 AUG 23 2011

Sizable electromagnetic forces in parallel-plate metallic cavity

Wang SB, Ng J, Liu H, Zheng H, Hang ZH, Chan CT

PHYSICAL REVIEW B 84 (7) 075114 AUG 5 2011

Modifying electronic transport properties of graphene by electron beam irradiation

He YH, Wang L, Chen XL, Wu ZF, Li W, Cai Y, Wang N

APPLIED PHYSICS LETTERS 99 (3) 033109 JUL 18 2011

WMINST Bylines (2001 – Present)

Electron localization in metal-decorated grapheme

Li W ; He YH, Wang L; Ding GH, Zhang ZQ, Lortz RW, Sheng P; Wang N

PHYSICAL REVIEW B 84 (4) 045431 JUL 15 2011

Graphene Magnetoresistance Device in van der Pauw Geometry

Lu JM, Zhang HJ, Shi W, Wang Z, Zheng Y, Zhang T, Wang N, Tang ZK, Sheng P

NANO LETTERS 11 (7) 2973-2977 JUL 2011

Facile fabrication, properties and application of novel thermo-responsive hydrogel

Li JX, Gong XQ, Yi X, Sheng P, Wen WJ

SMART MATERIALS & STRUCTURES 20 (7) 075005 JUL 2011

Thermal variations of iodine nanostructures inside the channels of AlPO₄-5 zeolite single crystals

Ye JT, Iwasa Y, Tang ZK

PHYSICAL REVIEW B83 (19) 193409 MAY 25 2011

Scaling of the anomalous Hall current in Fe_{100-x}(SiO₂)_x films

Xu WJ, Zhang B, Wang QX, Mi WB, Wang Z, Li W, Yu RH, Zhang XX

PHYSICAL REVIEW B83 (20) 205311 MAY 20 2011

ZnO hierarchical structures for efficient quasi-solid dye-sensitized solar cells

Cheng C, Shi YT, Zhu C, Li W, Wang L, Fung KK, Wang N

PHYSICAL CHEMISTRY CHEMICAL PHYSICS 13 (22) 10631-10634 2011

Observation of the Meissner state in superconducting arrays of 4-angstrom carbon nanotubes

Ieong C, Wang Z, Shi W, Wang YX, Wang N, Tang ZK, Sheng P, Lortz R

PHYSICAL REVIEW B83 (18) 184512 MAY 18 2011

Immobilization of glucose oxidase on rod-like and vesicle-like mesoporous silica for enhancing current responses of glucose biosensors

Zhou GW, Fung MK, Wong LW, Chen YJ, Renneberg R, Yang SH

TALANTA 84 (3) 659-665 MAY 15 2011

Photoluminescence of colloidal CdSe nano-tetrapods and quantum dots in oxygenic and oxygen-free environments

Zhao LJ, Pang Q, Yang SH, Ge WK, Wang JN

APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING 103 (2) 279-284 MAY 2011

WMINST Bylines (2001 – Present)

A half wave retarder made of bilayer subwavelength metallic apertures

Marcet Z, Chan HB, Carr DW, Bower JE, Cirelli RA, Klemens F, Mansfield WM, Miner JF, Pai CS

APPLIED PHYSICS LETTERS 98 (15) 151107 APR 11 2011

MICROSCOPIC MECHANISM OF THE GIANT ELECTORHEOLOGICAL EFFECT

Chen SY, Huang XX, Wen WJ, Sheng P, Van der Vegt NFA

INTERNATIONAL JOURNAL OF MODERN PHYSICS B 25 (7) 897-903 MAR 20 2011

Design and integration of an all-in-one biomicrofluidic chip (vol 2, 034103, 2008)

Liu LY, Cao WB, Wu JB, Wen WJ, Chang DC, Sheng P

BIOMICROFLUIDICS 5 (1) 019901 MAR 2011

Polymorphic and morphological selection of CaCO₃ by magnesium-assisted mineralization in gelatin: magnesium-rich spheres consisting of centrally aligned calcite nanorods and their good mechanical properties

Xiao JW, Yang SH

CRYSTENGCOMM 13 (7) 2472-2478 2011

Nonspecific Adsorption of Charged Quantum Dots on Supported Zwitterionic Lipid Bilayers: Real-Time Monitoring by Quartz Crystal Microbalance with Dissipation

Zhang XF, Yang SH

LANGMUIR 27 (6) 2528-2535 MAR 15 2011

Design and integration of an all-in-one biomicrofluidic chip (vol 2, 034103, 2008)

Liu LY, Cao WB, Wu JB, Wen WJ, Chang DC, Sheng P

BIOMICROFLUIDICS 5 (1) 019901 MAR 2011

Q-factor enhancement in a one-dimensional photonic crystal cavity with embedded planar plasmonic metamaterials

Li YH, Tao XC, Chen H, Tam WY

JOURNAL OF THE OPTICAL SOCIETY OF AMERICA A-OPTICS IMAGE SCIENCE AND VISION 28 (3) 314-317 MAR 2011

Digital flow control of electroosmotic pump: Onsager coefficients and interfacial parameters determination

Xu ZL, Miao JY, Wang N, Wen WJ, Sheng P

SOLID STATE COMMUNICATIONS 151 (6) 440-445 MAR 2011

WMINST Bylines (2001 – Present)

Tuning anomalous Hall conductivity in L1(0) FePt films by long range chemical ordering

Chen M, Shi Z, Xu WJ, Zhang XX, Du J, Zhou SM

APPLIED PHYSICS LETTERS 98 (8) 082503 FEB 21 2011

Biomimetic Synthesis, Hierarchical Assembly and Mechanical Properties of Calcite/Chitosan Composites in a Three-Dimensional Chitosan Scaffold

Xiao JW, Yang SH

ADVANCED ENGINEERING MATERIALS 13 (1-2) B32-B40 FEB 2011

Zn₂TiO₄-ZnO Nanowire Axial Heterostructures Formed by Unilateral Diffusion

Cheng C, Li W, Wong TL, Ho KM, Fung KK, Wang N

JOURNAL OF PHYSICAL CHEMISTRY C 115 (1) 78-82 JAN 13 2011

Controllable Fabrication of Three-Dimensional Radial ZnO Nanowire/Silicon Microrod Hybrid Architectures

Song HS, Zhang WJ, Cheng C, Tang YB, Luo LB, Chen X, Luan CY, Meng XM, Zapien JA, Wang N, Lee CS, Bello I, Lee ST

CRYSTAL GROWTH & DESIGN 11 (1) 147-153 JAN 2011

Optical activities in complementary double layers of six-armed metallic gammadion structures

Gao WS, Tam WY

JOURNAL OF OPTICS 13 (1) 015101 JAN 2011

Vertically aligned ZnO/amorphous-Si core-shell heterostructured nanowire arrays

Cheng C, Wang TL, Feng L, Li W, Ho KM, Loy MMT, Fung KK, Wang N

NANOTECHNOLOGY 21 (47) 475703 NOV 26 2010

Synthesis of Size-Tunable Anatase TiO₂ Nanospindles and Their Assembly into Anatase@Titanium

Oxynitride/Titanium Nitride-Graphene Nanocomposites for Rechargeable Lithium Ion Batteries with High Cycling Performance

Qiu YC, Yan KY, Yang SH, Jin LM, Deng H, Li WS

ACS NANO 4 (11) 6515-6526 NOV 2010

Two-Dimensional Self-Assemblies of Silica Nanoparticles Formed Using the "Bubble Deposition Technique"

Zhang XF, Tang GL, Yang SH, Benattar JJ

LANGMUIR 26 (22) 16828-16832 NOV 16 2010

WMINST Bylines (2001 – Present)

Nanostructural Transformation and Formation of Heterojunctions from Si Nanowires

Wong TL, Cheng C, Li W, Fung KK, Wang N

ACS NANO 4 (10) 5559-5564 OCT 2010

Structure and Metal-to-Insulator Transition of VO₂ Nanowires Grown on Sapphire Substrates

Cheng Y, Zhang T, Cai YA, Ho KM, Fung KK, Wang N

EUROPEAN JOURNAL OF INORGANIC CHEMISTRY (27) 4332-4338 SEP 2010

Hollow calcite crystals with complex morphologies formed from amorphous precursors and regulated by surfactant micellar structures

Xiao JW, Yang SH

CRYSTENGCOMM 12 (10) 3296-3304 2010

Droplet spreading driven by van der Waals force: a molecular dynamics study

Wu CM, Qian TZ, Sheng P

JOURNAL OF PHYSICS-CONDENSED MATTER 22 (32) 325101 AUG 18 2010

New Confinement Method for the Formation of Highly Aligned and Densely Packed Single-Walled Carbon Nanotube Monolayers

Tang GL, Zhang XF, Yang SH, Derycke V, Benattar JJ

SMALL 6 (14) 1488-1491 JUL 19 2010

Giant Electrorheological Effect: A Microscopic Mechanism

Chen SY, Huang XX, Van der Vegt NFA, Wen WJ, Sheng P

PHYSICAL REVIEW LETTERS 105 (4) 046001 JUL 19 2010

Surface-Enhanced Raman Spectroscopy on Two-Dimensional Networks of Gold

Nanoparticle-Nanocavity Dual Structures Supported on Dielectric Nanosieves

Li YS, Su HM, Wong KS, Li XY

JOURNAL OF PHYSICAL CHEMISTRY C 114 (23) 10463-10477 JUN 17 2010

Optical Properties of Colloidal CdSe Tetrapod Nanocrystals

Zhao LJ, Pang Q, Yang SH, Ge WK, Wang JN

JOURNAL OF INFRARED AND MILLIMETER WAVES 29 (3) 167-+ JUN 2010

Hydrodynamic boundary conditions: An emergent behavior of fluid-solid interactions

Qian TZ, Wang XP, Sheng P

SOLID STATE COMMUNICATIONS (21-22) Sp. Iss. SI 976-989 JUN 2010

WMINST Bylines (2001 – Present)

Fabrication of Fluorescent Silica Nanoparticles Hybridized with AIE Luminogens and Exploration of Their Applications as Nanobiosensors in Intracellular Imaging

Faisal M, Hong YN, Liu JZ, Yu Y, Lam JWY, Qin AJ, Lu P, Tang BZ

CHEMISTRY-A EUROPEAN JOURNAL 16 (14): 4266-4272 2010

From Nanorods to Atomically Thin Wires of Anatase TiO₂: Nonhydrolytic Synthesis and Characterization

Liu CM, Sun H, Yang SH

CHEMISTRY-A EUROPEAN JOURNAL 16 (14): 4381-4393 2010

Tailoring the luminescence emission of ZnO nanostructures by hydrothermal post-treatment in water

Yao BD, Feng L, Cheng C, Loy MMT, Wang N

APPLIED PHYSICS LETTERS 96 (22) 223105 MAY 31 2010

Exterior optical cloaking and illusions by using active sources: A boundary element perspective

Zheng HH, Xiao JJ, Lai Y, Chan CT

PHYSICAL REVIEW B 81 (19) 195116 MAY 15 2010

Giant electrorheological fluid comprising nanoparticles: Carbon nanotube composite

Li JX, Gong XQ, Chen SY, Wen WJ, Sheng P

JOURNAL OF APPLIED PHYSICS 107 (9): 093507 MAY 1 2010

Fabrication of microstructures in holographic gelatin emulsions by reflections from spherical surfaces

Pang YK, Chan TL, Tam WY

JOURNAL OF OPTICS 12 (5) 055101 MAY 2010

Transformation optics and metamaterials

Chen HY, Chan CT, Sheng P

NATURE MATERIALS 9 (5): 387-396 MAY 2010

Biomimetic Mineralization of CaCO₃ on a Phospholipid Monolayer: From an Amorphous Calcium Carbonate Precursor to Calcite via Vaterite

Xiao JW, Wang ZN, Tang YC, Yang SH

LANGMUIR 26 (7): 4977-4983 APR 6 2010

Anomalous Hall effect in Fe/Gd bilayers

Xu WJ, Zhang B, Liu ZX, Wang Z, Li W, Wu ZB, Yu RH, Zhang XX

EPL 90 (2) 27004 APR 2010

WMINST Bylines (2001 – Present)

Doubly slanted layer structures in holographic gelatin emulsions: solar concentrators

Hung J, Chan PS, Sun CM, Ho CW, Tam WY

JOURNAL OF OPTICS 12 (4) 045104 APR 2010

Luminescent tetraphenylethene-substituted silanes

Zhao ZJ, Chen SM, Lam JWY, Chan CYK, Jim CKW, Wang ZM, Wang CL, Lu P, Kwok HS, Ma YG, Tang BZ

PURE AND APPLIED CHEMISTRY 82 (4) Sp. Iss. SI: 863-870 APR 2010

Real-time monitoring of induced adaptation of redox active Escherichia coli biofilm by EQCM-controlled extracellular redox environment

Xie XH, Li EL, Tang ZK

ELECTROCHEMISTRY COMMUNICATIONS 12 (4): 600-602 APR 2010

Aggregation-induced emission, self-assembly, and electroluminescence of 4,4'-bis(1,2,2-triphenylvinyl)biphenyl

Zhao ZJ, Chen SM, Shen XY, Mahtab F, Yu Y, Lu P, Lam JWY, Kwok HS, Tang BZ

CHEMICAL COMMUNICATIONS 46 (5): 686-688 2010

Acoustic cloaking and transformation acoustics

Chen HY, Chan CT

JOURNAL OF PHYSICS D-APPLIED PHYSICS 43 (11): 113001 MAR 24 2010

Theory of Optical Trapping by an Optical Vortex Beam

Ng J, Lin ZF, Chan CT

PHYSICAL REVIEW LETTERS 104 (10): 103601 MAR 12 2010

Hybrid solar cells based on blends of poly(3-hexylthiophene) and surface dye-modified, ultrathin linear- and branched-TiO₂ nanorods

Luo J, Liu CM, Yang SH, Cao Y

SOLAR ENERGY MATERIALS AND SOLAR CELLS 94 (3): 501-508 MAR 2010

Molecular beam epitaxy-grown Bi₄Te₃ nanowires

Wang G, Lok SK, Wong GKL, Sou IK

APPLIED PHYSICS LETTERS 95 (26): 263102 DEC 28 2009

WMINST Bylines (2001 – Present)

Modeling and simulations for molecular scale hydrodynamics of the moving contact line in immiscible two-phase flows

Qian TZ, Wu CM, Lei SL, Wang XP, Sheng P

JOURNAL OF PHYSICS-CONDENSED MATTER 21 (46): 464119 NOV 18 2009

Transformation media based super focusing antenna

Lu WL, Lin ZF, Chen HY, Chan CT

JOURNAL OF PHYSICS D-APPLIED PHYSICS 42 (21): 212002 NOV 7 2009

Acetylenic Polymers: Syntheses, Structures, and Functions

Liu JZ, Lam JWY, Tang BZ

CHEMICAL REVIEWS 109 (11): 5799-5867 NOV 2009

Optical Force on Dielectric Nanorods Coupled to a High-Q Photonic Crystal Nanocavity

Jian YC, Xiao JJ, Huang JP

JOURNAL OF PHYSICAL CHEMISTRY C 113 (39): 17170-17175 OCT 1 2009

In Situ Fabrication of Inorganic Nanowire Arrays Grown from and Aligned on Metal Substrates

Zhang WX, Yang SH

ACCOUNTS OF CHEMICAL RESEARCH 42 (10): 1617-1627 OCT 2009

"Cloaking at a distance" from folded geometries in bipolar coordinates

Chen HY, Chan CT

OPTICS LETTERS 34(17): 2649-2651 SEP 1 2009

Thermally Induced Transfiguration of Polymer Nanowires under Irradiation of Electron Beams

Xu HP, Mao Y, Wang J, Xie BY, Jin JK, Sun JZ, Yuan WZ, Qin A, Wang M, Tang BZ

JOURNAL OF PHYSICAL CHEMISTRY C 113 (33): 14623-14627 AUG 20 2009

A simple route to a tunable electromagnetic gateway

Chen HY, Chan CT, Liu SY, Lin ZF

NEW JOURNAL OF PHYSICS 11: Art No. 083012 AUG 13 2009

Realization and field emission of CdSe nano-tetrapods with different arm lengths

Zhao LJ, Pang Q, Yang SH, Ge WK, Wang JN

PHYSICS LETTERS A 373 (33): 2965-2968 AUG 10 2009

WMINST Bylines (2001 – Present)

In vitro release of osteoinductive molecule Icaritin from porous PLGA/TCP/Icaritin scaffolds for repairing steroid-associated osteonecrosis lesion

Wang XL, Zhang G, Xie XH, Lee KM, Li G, Wang XO, Yao XS, Leng Y, Leung KS, Qin L
BONE 45 (S105-S105) JUL 2009

Promotion of tissue repair of steroid-associated osteonecrosis lesion in rabbits by using PLGA/TCP/Icaritin composite biomaterials scaffold: An in vivo micro-computed tomography study

Xie XH, Zhang G, He YX, Wang XL, Sheng H, Wang XH, Li G, Leung KS, Leng Y, Qin L
BONE 45 (S107-S107) JUL 2009

Fabrication of gold nano-particle arrays using two-dimensional templates from holographic lithography

Lee FY, Fung KH, Tang TL, Tam WY, Chan CT
CURRENT APPLIED PHYSICS 9 (4): 820-825 JUL 2009

Electronic and optical properties of single-walled carbon nanotubes under a uniform transverse electric field: A first-principles study

Cho TH, Su WS, Leung TC, Ren W, Chan CT
PHYSICAL REVIEW B 79 (23): 235123 JUN 2009

The formation of an aligned 1D nanostructure on annealed Fe/ZnSe bilayers

Wang G, Lok SK, Chan SK, Wang C), Wong GKL, Sou IK
NANOTECHNOLOGY 20 (21): 215607 MAY 27 2009

Superconducting characteristics of 4-angstrom carbon nanotube-zeolite composite

Lortz R, Zhang QC, Shi W, Ye JT, Qiu CY, Wang Z, He HT, Sheng P, Qian TZ, Tang ZK, Wang N, Zhang XX, Wang JN, Chan CT
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 106 (18): 7299-7303 MAY 5 2009

A new photoanode architecture of dye sensitized solar cell based on ZnO nanotetrapods with no need for calcination

Chen W, Zhang HF, Hsing IM, Yang SH
ELECTROCHEMISTRY COMMUNICATIONS 11 (5): 1057-1060 MAY 2009

Lasing from dye-doped icosahedral quasicrystals in dichromate gelatin emulsions

Kok MH, Lu WX, Tam WY, Wong GKL
OPTICS EXPRESS 17 (9): 7275-7284 APR 27 2009

WMINST Bylines (2001 – Present)

Synthesis of Angstrom-Scale Anatase Titania Atomic Wires

Liu CM, Yang SH

ACS NANO 3 (4): 1025-1031 APR 2009

Chiral Poly(4-ethynylbenzoyl-L-valine)-Induced Helical Self-Assembly of Alkynylplatinum(II) Terpyridyl

Complexes with Tunable Electronic Absorption, Emission, and Circular Dichroism Changes

Chan KHY, Lam JWY, Wong KMC, Tang BZ, Yam WW

CHEMISTRY-A EUROPEAN JOURNAL 15(10): 2328-2334 2009

Lead selenide nanocrystals decorated with fullerenes by dithiocarbamate linkage and their photoelectric response

Liu DF, Wei W, Yang SH

JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS 70 (3-4): 694-699 MAR-APR 2009

Fe-layer-induced aligned 1D nanostructure on ZnSe surface

Wang G, Lok SK, Chan SK, Wang C, Wong GKL, Sou IK

JOURNAL OF CRYSTAL GROWTH 311(7): 2205-2207 MAR 15 2009

MBE-grown Fe nanowires on a ZnS(100) surface

Lok SK, Chan SK, Wong GKL, Sou IK

JOURNAL OF CRYSTAL GROWTH 311(7): 2208-2211 MAR 15 2009

Observation of negative differential resistance from a Schottky-barrier structure embedded with Fe quantum dots

Lok SK, Li BK, Wang JN, Wong GKL, Sou IK

JOURNAL OF CRYSTAL GROWTH 311(7): 2155-2159 MAR 15 2009

The structure and growth mechanism of VO₂ nanowires

Cheng Y, Wong TL, Ho KM, Wang N

JOURNAL OF CRYSTAL GROWTH 311(6): 1571-1575 MAR 1 2009

Comparative studies on catalytic properties of immobilized *Candida rugosa* lipase in ordered mesoporous rod-like silica and vesicle-like silica

Zhou GW, Chen YJ, Yang SH

MICROPOROUS AND MESOPOROUS MATERIALS 119 (1-3): 223-229 MAR 1 2009

Comparative study of single Cu, Ag, Au, and K atoms adsorbed on Si(111)-(7x7)

Chen G, Xiao XD, Kawazoe Y, Gong XG, Chan CT

PHYSICAL REVIEW B 79 (11): 115301 MAR 2009

WMINST Bylines (2001 – Present)

Generation and manipulation of "smart" droplets

Niu XZ , Zhang MY , Wu JB , Wen WJ, Sheng P

SOFT MATTER 5 (3): 576-581 2009

Lattice instability and superconductivity in electron doped (3,3) carbon nanotubes

Bohnen KP, Heid R, Chan CT

JOURNAL OF PHYSICS-CONDENSED MATTER 21 (8): 084206 FEB 25 2009

Template-Free Electrodeposition of One-Dimensional Nanostructures of Tellurium

She GW, Shi WS, Zhang XH, Wong TL, Cai Y, Wang N

CRYSTAL GROWTH & DESIGN 9 (2): 663-666 FEB 2009

Design and Fabrication of Magnetically Functionalized Core/Shell Microspheres for Smart Drug Delivery

Gong XQ, Peng SL, Wen WJ, Sheng P, Li WH

ADVANCED FUNCTIONAL MATERIALS 19 (2): 292-297 JAN 23 2009

Observation of an Amorphous Calcium Carbonate Precursor on a Stearic Acid Monolayer Formed during the Biomimetic Mineralization of CaCO₃

Chen YJ, Xiao JW, Wang ZN, Yang SH

LANGMUIR 25 (2): 1054-1059 JAN 20 2009

Complete photonic bandgaps in the visible range from spherical layer structures in dichromate gelatin emulsions

Hung J, Kok MH , Tam WY

APPLIED PHYSICS LETTERS 94 (1): 014102 JAN 5 2009

Whispering gallery mode enhanced optical force with resonant tunneling excitation in the Kretschmann geometry

Xiao JJ, Ng J, Lin ZF, Chan CT

APPLIED PHYSICS LETTERS 94 (1): 011102 JAN 5 2009

High-Quality ZnO Nanowire Arrays Directly Fabricated from Photoresists

Cheng C, Lei M, Feng L, Wong TL, Ho KM, Fung KK, Loy MMT, Yu DP, Wang N

ACS NANO 3 (1): 53-58 JAN 2009

Growth behaviors of ultrathin ZnSe nanowires by Au-catalyzed molecular-beam epitaxy

Cai Y, Wong TL, Chan SK, Sou IK, Su DS, Wang N

APPLIED PHYSICS LETTERS 93 (23): 233107 DEC 8 2008

WMINST Bylines (2001 – Present)

Manipulations of microfluidic droplets using electrorheological carrier fluid

Zhang MY, Wu JB, Niu XZ, Wen WJ, Sheng P

PHYSICAL REVIEW E 78 (6): 066305 Part 2 DEC 2008

Generalized nematohydrodynamic boundary conditions with application to bistable twisted nematic liquid-crystal displays

Fang AB, Qian TZ, Sheng P

PHYSICAL REVIEW E 78 (6): 061703 Part 1 DEC 2008

I-V Characteristics of Metal-Oxide-ZnSe Nanowire Structure

Zhou SX, Wang YG, Han W, Wang N

JOURNAL OF PHYSICAL CHEMISTRY C 112 (47): 18644-18650 NOV 27 2008

The alternative route of low-temperature preparation of highly oriented lead zirconate titanate thin films by high gas-pressure processing

Zhang XD, Meng XJ, Sun JL, Lin T, Ma JH, Chu JH, Wang N, Dho J

JOURNAL OF MATERIALS RESEARCH 23 (11): 2846-2853 NOV 2008

Transport properties in iron-iron oxide film near percolation threshold

Ren SL, You BA, Du J, Bai XJ, Zhang J, Hu A, Zhang B, Zhang XX

JOURNAL OF ALLOYS AND COMPOUNDS 465 (1-2): 417-421 OCT 6 2008

A scaling approach to the derivation of hydrodynamic boundary conditions

Qian TZ, Qiu CY, Sheng P

JOURNAL OF FLUID MECHANICS 611: 333-364 SEP 25 2008

Scaling law of anomalous Hall effect in Fe/Cu bilayers

Xu WJ, Zhang B, Wang Z, Chu SS, Li W, Wu ZB, Yu RH, Zhang XX

EUROPEAN PHYSICAL JOURNAL B 65 (2): 233-237 SEP 2008

Wettability of urea-doped TiO₂ nanoparticles and their high electrorheological effects

Wei JH, Zhao LH, Peng SL, Shi J, Liu ZY, Wen WJ

JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY 47 (3): 311-315 SEP 2008

Analysis and fabrication of patterned magnetorheological elastomers

Zhang XZ, Peng SL, Wen WJ, Li WH

SMART MATERIALS & STRUCTURES 17 (4): 045001 AUG 2008

WMINST Bylines (2001 – Present)

Optical characterization of woodpile structures in gelatin emulsions fabricated by optical interference holography

Jin BP, Xu J, Pang YK, Tam WY

JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS 10 (8): 085204 AUG 2008

Design and integration of an all-in-one biomicrofluidic chip

Liu LY, Cao WB, Wu JB, Wen WJ, Chang DC, Sheng P

BIOMICROFLUIDICS 2 (3): 034103 JUL-SEP 2008

Synthesis of metallic nanostructures using chemical fluid deposition

Lin CS, Lam FLY, Hu XJ, Tam WY, Ng KM

JOURNAL OF PHYSICAL CHEMISTRY C 112 (27): 10068-10072 JUL 10 2008

Intrinsic anisotropy of degree of transport spin polarization in typical ferromagnets

Zhu ZY, Zhang HW, Xu SF, Chen JL, Wu GH, Zhang B, Zhang XX

JOURNAL OF PHYSICS-CONDENSED MATTER 20 (27): 275245 JUL 9 2008

Moving contact line on chemically patterned surfaces

Wang XP, Qian TZ, Sheng P

JOURNAL OF FLUID MECHANICS 605: 59-78 JUN 25 2008

Template-free electrochemical synthesis of single-crystal CuTe nanoribbons

She GW, Zhang XH, Shi WS, Cai Y, Wang N, Liu P, Chen DM

CRYSTAL GROWTH & DESIGN 8 (6): 1789-1791 JUN 2008

Complex electron-phonon driven lattice dynamics in ultrasmall-radius (5,0) carbon nanotubes

Bohnen KP, Heid R, Chan CT

PHYSICAL REVIEW B 77 (23): 235407 JUN 2008

Formation mechanism of nanotrenches induced by mobile catalytic nanoparticles

Chan SK, Lok SK, Wang G, Cai Y, Wang YJ, Wang N, Sou IK

APPLIED PHYSICS LETTERS 92 (18): 183102 MAY 5 2008

Lasing from dye-doped photonic crystals with graded layers in dichromate gelatin emulsions

Kok MH, Lu WX, Lee JCW, Tam WY, Wong GKL, Chan CT

APPLIED PHYSICS LETTERS 92 (15): 151108 APR 14 2008

Growth of nanowires

Wang N, Cai Y, Zhang RQ

MATERIALS SCIENCE & ENGINEERING R-REPORTS 60 (1-6): 1-51 MAR 31 2008

WMINST Bylines (2001 – Present)

Tunneling magnetoresistance in Fe-oxide film

Ren SL, You B, Bai XJ, Zhang J, Zhang W, Du J, Hu A, Zhang XX

PHYSICS LETTERS A 372 (12): 2118-2122 MAR 17 2008

Electrorheological fluids: structures and mechanisms

Wen WJ, Huang XX, Sheng P

SOFT MATTER 4 (2): 200-210 2008

Lithography inside Cu(OH)(2) nanorods: A general route to controllable synthesis of the arrays of copper chalcogenide nanotubes with double walls

Xu J, Zhang WX, Yang ZH, Yang SH

INORGANIC CHEMISTRY 47 (2): 699-704 JAN 21 2008

Magnetically responsive elastic microspheres

Peng SL, Zhang MY, Niu XZ, Wen WJ, Sheng P, Liu ZY, Shi J

APPLIED PHYSICS LETTERS 92 (1): 012108 JAN 3 2008

Manipulation of light using slanted layer photonic crystals in holographic gelatin emulsions

Yau SM, Kok MH, Tam WY

JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS 10 (1): 015201 JAN 2008

Hydrodynamic boundary condition at the fluid-solid interface

Sheng P, Qian T, Wang X

INTERNATIONAL JOURNAL OF MODERN PHYSICS B 21 (23-24): 4129-4141 2007

Real-time detection, control, and sorting of microfluidic droplets

Niu XZ, Zhang MY, Peng SL, Wen WJ, Sheng P

BIOMICROFLUIDICS 1 (4): 044101 OCT-DEC 2007

Work function of single-walled and multiwalled carbon nanotubes: First-principles study

Su WS, Leung TC, Chan CT

PHYSICAL REVIEW B 76 (23): 235413 DEC 11 2007

Imaging 0.4nm single-walled carbon nanotubes with atomic force microscopy

Zhang XQ, Ye JT, Yang HW, Zhang C, Ho KM, Su T, Wang N, Tang ZK, Xiao XD

SURFACE REVIEW AND LETTERS 14 (4): 687-692 2007

WMINST Bylines (2001 – Present)

Emergent methods to synthesize and characterize semiconductor CuO nanoparticles with various morphologies - an overview

Anandan S, Yang SH

JOURNAL OF EXPERIMENTAL NANOSCIENCE 2 (1-2): 23-56 2007

Microfluidic manipulation in lab-chips using electrorheological fluid

Niu X, Liu L, Wen W, Sheng P

JOURNAL OF INTELLIGENT MATERIAL SYSTEMS AND STRUCTURES 18 (12): 187-1190 DEC 2007

Studies of electrochemical synthesis of ultrathin ZnO nanorod/nanobelt arrays on Zn substrates in alkaline solutions of amine-alcohol mixtures

Yang JH, Qiu YF, Yang SH

CRYSTAL GROWTH & DESIGN 7 (12): 2562-2567 NOV 15 2007

Micropumps based on the enhanced electroosmotic effect of aluminum oxide membranes

Miao JY, Xu ZL, Zhang XY, Wang N, Yang ZY, Sheng P

ADVANCED MATERIALS 19 (23): 4234-+ NOV 12 2007

Formation of polarized contact layers and the giant electrorheological effect

Huang XX, Wen WJ, Yang SH, Sheng P

INTERNATIONAL JOURNAL OF MODERN PHYSICS B 21 (28-29): 4907-4913 NOV 10 2007

Raman characterization of 0.4 nm single-walled carbon nanotubes formed in the channels of ALPO(4)-5 zeolite single crystals

Ye JT, Zhai JP, Tang ZK

JOURNAL OF PHYSICS-CONDENSED MATTER 19 (44): 445003 OCT 18 2007

Characterizing and patterning of PDMS-based conducting composites

Niu XZ, Peng SL, Liu LY, Wen WJ, Sheng P

ADVANCED MATERIALS 19 (18): 2682-+ SEP 17 2007

Woodpile and diamond structures by optical interference holography

Tam WY

JOURNAL OF OPTICS A-PURE AND APPLIED OPTICS 9 (11): 1076-1081 14 SEP 2007

Site-specific deposition of titanium oxide on zinc oxide nanorods

Cheng C, Yu KF, Cai Y, Fung KK, Wang N

JOURNAL OF PHYSICAL CHEMISTRY C 111 (45): 16712-16716 AUG 28 2007

WMINST Bylines (2001 – Present)

Micro thermoindicators and optical-electronic temperature control for microfluidic applications

Liu LY, Peng SL, Wen WJ, Sheng P

APPLIED PHYSICS LETTERS 91 (9): Art. No. 093513 AUG 27 2007

Magnetic transport properties in iron/iron-oxide films

Ren SL, You B, Du J, Bai XJ, Zhang J, Zhang W, Hu A, Zhang B, Zhang XX

PHYSICA B-CONDENSED MATTER 400 (1-2): 185-189 JUL 19 2007

High speed atomic force microscope lithography driven by electrostatic interaction

Ding L, Li Y, Chu HB, Li CQ, Yang ZH, Zhou WW, Tang ZK

APPLIED PHYSICS LETTERS 91 (2): Art. No. 023121 JUL 9 2007

Giant magnetothermal conductivity in the Ni-Mn-In ferromagnetic shape memory alloys

Zhang B, Zhang XX, Yu SY, Chen JL, Cao ZX, Wu GH

APPLIED PHYSICS LETTERS 91 (1): Art. No. 012510 JUL 2 2007

Vertically aligned zinc selenide nanoribbon arrays: microstructure and field emission

Zhao LJ, Pang Q, Cai Y, Wang N, Ge WK, Wang JN, Yang SH

JOURNAL OF PHYSICS D-APPLIED PHYSICS 40 (12): 3587-3591 JUN 21 2007

Observation of electric current induced by optically injected spin current

Cui XD, Shen SQ, Li J, Ji Y, Ge WK, Zhang FC

APPLIED PHYSICS LETTERS 90 (24): Art. No. 242115 JUN 11 2007

Magnetic field-induced martensitic transformation and large magnetoresistance in NiCoMnSb alloys

Yu SY, Ma L, Liu GD, Liu ZH, Chen JL, Cao ZX, Wu GH, Zhang B, Zhang XX

APPLIED PHYSICS LETTERS 90 (24): Art. No. 242501 JUN 11 2007

Geometric and electronic structure of a C-60 monolayer on Ag(100)

Zhang XQ, He W, Zhao AD, Li HN, Chen L, Pai WW, Hou JG, Loy MMT, Yang JL, Xiao XD

PHYSICAL REVIEW B 75 (23): Art. No. 235444 JUN 2007

Ground and excited states of three-electron quantum dots

Fang AB, Chi XG, Sheng P

SOLID STATE COMMUNICATIONS 142 (10): 551-555 JUN 2007

Paperlike thermochromic display

Liu LY, Peng SL, Wen WJ, Sheng P

APPLIED PHYSICS LETTERS 90 (21): Art. No. 213508 MAY 21 2007

WMINST Bylines (2001 – Present)

ZnO nanotetrapods: Controlled vapor-phase synthesis and application for humidity sensing

Qiu YF, Yang SH

ADVANCED FUNCTIONAL MATERIALS 17 (8): 1345-1352 MAY 21 2007

Preparation and optical properties of Cu₂O hollow microsphere film and hollow nanosphere powder via a simple liquid reduction approach

Zhang WX, Luan CY, Yang ZH, Liu XT, Zhang DP, Yang SH

APPLIED SURFACE SCIENCE 253 (14): 6063-6067 MAY 15 2007

Work function of small radius carbon nanotubes and their bundles

Su WS, Leung TC, Li B, Chan CT

APPLIED PHYSICS LETTERS 90 (16): Art. No. 163103 APR 16 2007

Wide bandgap photonic structures in dichromate gelatin emulsions (vol 89, art no 081116, 2006)

Ma R, Xu J, Tam WY

APPLIED PHYSICS LETTERS 90 (16): Art. No. 169901 APR 16 2007

Icosahedral quasicrystals for visible wavelengths by optical interference holography

Xu J, Ma R, Wang X, Tam WY

OPTICS EXPRESS 15 (7): 4287-4295 APR 2007

Infrared reflectivity of Co-x(SiO₂)(1-x)(x similar to 0.85, 0.55, 0.38) granular films on SiO₂ glass substrates

Massa NE, Denardin JC, Socolovsky LA, Knobel M, de la Cruz FP, Zhang XX

SOLID STATE COMMUNICATIONS 141 (10): 551-554 MAR 2007

Electrochemical route to the synthesis of ultrathin ZnO nanorod/nanobelt arrays on zinc substrate

Yang JH, Liu GM, Lu J, Qiu YF, Yang SH

APPLIED PHYSICS LETTERS 90 (10): Art. No. 103109 MAR 2007

The synthesis and electrorheological properties of BaTiO₃-coated PMMA microspheres

Peng SL, Wei JH, Jing S, Liu ZY, Tang WF, Wen WJ

JOURNAL OF WUHAN UNIVERSITY OF TECHNOLOGY-MATERIALS SCIENCE EDITION 22 (1): 85-87 FEB 2007

Aggregation-induced emission: Effects of molecular structure, solid-state conformation, and morphological packing arrangement on light-emitting behaviors of diphenyldibenzofulvene derivatives

Tong H, Dong YQ, Hong YN, Haussler M, Lam JWY, Sung HHY, Yu XM, Sun JX, Williams ID, Kwok HS, Tang BZ

JOURNAL OF PHYSICAL CHEMISTRY C 111 (5): 2287-2294 FEB 2007

WMINST Bylines (2001 – Present)

Catalyst-free synthesis of ZnO nanowire arrays on zinc substrate by low temperature thermal oxidation

Ren S, Bai YF, Chen J, Deng SZ, Xu NS, Wu QB, Yang SH

MATERIALS LETTERS 61 (3): 666-670 FEB 2007

From uniform Cu thin films to $\langle 110 \rangle$ and $\langle 111 \rangle$ columns

Wei HL, Huang HC, Woo CH, Zhang XX

VACUUM 81 (5): 583-589 JAN 5 2007

Kinetic energy operator approach to the quantum three-body problem with Coulomb interactions

Chi XG, Fang AB, Hsiang WY, Sheng P

SOLID STATE COMMUNICATIONS 141 (4): 173-177 JAN 2007

Memory effect and spin-glass-like behavior in Co-Ag granular films

Du J, Zhang B, Zheng RK, Zhang XX

PHYSICAL REVIEW B 75 (1): Art. No. 014415 JAN 2007

Meissner effect in a system of coupled one-dimensional superconducting wires: Monte Carlo simulations

Qiu CY, Qian TZ, Sheng P

PHYSICAL REVIEW B 75 (2): Art. No. 024504 JAN 2007

Temperature-dependent growth direction of ultrathin ZnSe nanowires

Cai Y, Chan SK, Sou IK, Chan YT, Su DS, Wang N

SMALL 3 (1): 111-115 JAN 2007

Mechanisms of the giant electrorheological effect

Huang XX, Wen WJ, Yang SH, Sheng P

SOLID STATE COMMUNICATIONS 139 (11-12): 581-588 2006

Moving contact line over undulating surfaces

Luo XP, Wang XP, Qian TZ, Sheng P

SOLID STATE COMMUNICATIONS 139 (11-12): 623-629 2006

Spontaneous growth of indium nanostructures

Wei HL, Zhang L, Liu Z, Huang HC, Zhang XX

JOURNAL OF CRYSTAL GROWTH 297 (2): 300-305 DEC 29 2006

Icosahedral quasicrystals by optical interference holography

Tam WY

APPLIED PHYSICS LETTERS 89 (25): Art. No. 251111 DEC 18 2006

WMINST Bylines (2001 – Present)

Mean-field description of spinodal growth of surface waves on rupturing films

Wang YJ, Tsui OKC

JOURNAL OF NON-CRYSTALLINE SOLIDS 352 (42-49): 4977-4982 Sp. Iss. SI, NOV 15 2006

Polarization-independent liquid crystal grating on azo-dye film fabricated through intensity holography

Lu XM, Lu QH, Lee FK, Tsui OKC

APPLIED PHYSICS LETTERS 89 (20): Art. No. 203507 NOV 13 2006

Quantum diffusion of H on Pt(111): Step effects

Zheng CZ, Yeung CK, Loy MMT, Xiao XD

PHYSICAL REVIEW LETTERS 97 (16): Art. No. 166101 OCT 20 2006

Large magnetoresistance in single-crystalline Ni₅₀Mn_{50-x}In_x alloys (x=14-16) upon martensitic transformation

Yu SY, Liu ZH, Liu GD, Chen JL, Cao ZX, Wu GH, Zhang B, Zhang XX

APPLIED PHYSICS LETTERS 89 (16): Art. No. 162503 OCT 16 2006

A variational approach to moving contact line hydrodynamics

Qian TZ, Wang XP, Sheng P

JOURNAL OF FLUID MECHANICS 564: 333-360 OCT 10 2006

Realization of woodpile structure using optical interference holography

Pang YK, Lee JCW, Ho CT, Tam WY

OPTICS EXPRESS 14 (20): 9113-9119 OCT 2 2006

Quasicrystals fabricated by holographic lithography

Wang X, Wing YT

ACTA PHYSICA SINICA 55 (10): 5398-5402 OCT 2006

Electrorheological effects in urea-doped Ba_xSr_{1-x}TiO₃ suspensions

Wei JH, Peng SL, Zhao LH, Shi J, Liu ZY, Wen WJ

SCRIPTA MATERIALIA 55 (8): 671-673 OCT 2006

Signature of intrinsic high-temperature ferromagnetism in cobalt-doped zinc oxide nanocrystals

Wang XF, Xu JB, Zhang B, Yu HG, Wang J, Zhang XX, Yu JG, Li Q

ADVANCED MATERIALS 18 (18): 2476-+ SEP 18 2006

WMINST Bylines (2001 – Present)

Synthesis and characterization of single crystalline selenium nanowire arrays

Zhang XY, Xu LH, Dai JY, Cai Y, Wang N

MATERIALS RESEARCH BULLETIN 41 (9): 1729-1734 SEP 14 2006

Initial stages of the adsorption of Ge atoms on the Si(111)-(7x7) surface

Zhao AD, Zhang XQ, Chen G, Loy MMT, Xiao XD

PHYSICAL REVIEW B 74 (12): Art. No. 125301 SEP 2006

Wide band gap photonic structures in dichromate gelatin emulsions

Ma R, Xu J, Tam WY

APPLIED PHYSICS LETTERS 89 (8): Art. No. 081116 AUG 21 2006

Electrorheological fluid-actuated microfluidic pump

Liu LY, Chen XQ, Niu XZ, Wen WJ, Sheng P

APPLIED PHYSICS LETTERS 89 (8): Art. No. 083505 AUG 21 2006

Study of Fe deposition onto root 3 x root 3-Al/Si(111) template by scanning tunneling microscopy

Xi L, Ma LY, He K, Wang ZT, Xue QK, Xiao XD, Lau WM

SURFACE SCIENCE 600 (15): 3072-3078 AUG 1 2006

Hybrid approach to high-frequency microfluidic mixing

Niu XZ, Liu LY, Wen WJ, Sheng P

PHYSICAL REVIEW LETTERS 97 (4): Art. No. 044501 JUL 28 2006

Role of structural defects on ferromagnetism in amorphous Cr-doped TiO₂ films

Wang YX, Liu H, Li ZQ, Zhang XX, Zheng RK, Ringer SP

APPLIED PHYSICS LETTERS 89 (4): Art. No. 042511 JUL 24 2006

Mechanical magnetoresistance in broken cold-pressed CrO₂ powder sample

Liu H, Zheng RK, Wang Y, Zhang XX

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS 302 (1): 211-215 JUL 2006

Spontaneous hillock growth on indium film surface

Wei HL, Zhang XX, Huang HC

CHINESE PHYSICS LETTERS 23 (7): 1880-1883 JUL 2006

Liquid crystal pretilt angle control using nanotextured surfaces

Yeung FSY, Xie FC, Wan JTK, Lee FK, Tsui OKC, Sheng P, Kwok HS

JOURNAL OF APPLIED PHYSICS 99 (12): Art. No. 124506 JUN 15 2006

WMINST Bylines (2001 – Present)

Growth of novel nanostructured copper oxide (CuO) films on copper foil

Zhang WX, Ding SX, Yang ZH, Liu AP, Qian YT, Tang SP, Yang SH

JOURNAL OF CRYSTAL GROWTH 291 (2): 479-484 JUN 1 2006

Field-induced giant static dielectric constant in nano-particle aggregates at room temperature

Chen F, Shulman J, Tsui S, Xue YY, Wen W, Sheng P, Chu CW

PHILOSOPHICAL MAGAZINE 86 (16): 2393-2398 JUN 1 2006

Large-scale synthesis of beta-MnO₂ nanorods and their rapid and efficient catalytic oxidation of methylene blue dye

Zhang WX, Yang ZH, Wang X, Zhang YC, Wen XG, Yang SH

CATALYSIS COMMUNICATIONS 7 (6): 408-412 JUN 2006

Catalytic effect of metal cations on the formation of carbon nanotubes inside the channels of AlPO₄-5 crystal

Zhai JP, Li ZM, Liu HJ, Li IL, Sheng P, Hu XJ, Tang ZK

CARBON 44 (7): 1151-1157 JUN 2006

Growth of indium nanorods by magnetron sputtering

Wei HL, Huang HC, Zhang XX

CHINESE PHYSICS LETTERS 23 (6): 1627-1630 JUN 2006

I-V characteristics of Schottky contacts of semiconducting ZnSe nanowires and gold electrodes

Wang YG, Zou BS, Wang TH, Wang N, Cai Y, Chan YF, Zhou SX

NANOTECHNOLOGY 17 (9): 2420-2423 MAY 14 2006

Spectral dependence of spin photocurrent and current-induced spin polarization in an InGaAs/InAlAs two-dimensional electron gas

Yang CL, He HT, Ding L, Cui LJ, Zeng YP, Wang JN, Ge WK

PHYSICAL REVIEW LETTERS 96 (18): Art. No. 186605 MAY 12 2006

Uniform hexagonal plates of vaterite CaCO₃ mesocrystals formed by biomimetic mineralization

Xu AW, Antonietti M, Colfen H, Fang YP

ADVANCED FUNCTIONAL MATERIALS 16 (7): 903-908 MAY 2 2006

Synthesis of ultrathin ZnO nanofibers aligned on a zinc substrate

Fang YP, Pang Q, Wen XG, Wang BN, Yang SH

SMALL 2 (5): 612-615 MAY 2006

WMINST Bylines (2001 – Present)

Electrorheological fluid-actuated flexible platform

Liu LY, Niu XZ, Wen WJ, Sheng P

APPLIED PHYSICS LETTERS 88 (17): Art. No. 173505 APR 24 2006

Active microfluidic mixer chip

Niu XZ, Liu LY, Wen WJ, Sheng P

APPLIED PHYSICS LETTERS 88 (15): Art. No. 153508 APR 10 2006

Nanorods of manganese oxides: Synthesis, characterization and catalytic application

Yang ZH, Zhang YC, Zhang WX, Wang X, Qian YT, Wen XG, Yang SH

JOURNAL OF SOLID STATE CHEMISTRY 179 (3): 679-684 MAR 2006

Adsorption pathways of singlet O-2 on 4 angstrom carbon nanotubes

Liu HJ, Chan CT

PHYSICAL REVIEW B 73 (11): Art. No. 113405 MAR 2006

Unconventional spinodal surface fluctuations on polymer films

Wang YJ, Tsui OKC

LANGMUIR 22 (5): 1959-1963 FEB 28 2006

Role of phase transition in the unusual microwear behavior of superelastic NiTi shape memory alloy

Qian LM, Sun QP, Xiao XD

WEAR 260 (4-5): 509-522 FEB 24 2006

Optical characterizations of iodine molecular wires formed inside the one-dimensional channels of an AlPO₄₋₅ single crystal

Ye JT, Tang ZK, Siu GG

APPLIED PHYSICS LETTERS 88 (7): Art. No. 073114 FEB 13 2006

A novel carbon nanotube structure formed in ultra-long nanochannels of anodic aluminum oxide templates

Miao JY, Cai Y, Chan YF, Sheng P, Wang N

JOURNAL OF PHYSICAL CHEMISTRY B 110 (5): 2080-2083 FEB 9 2006

Realization of optical periodic quasicrystals using holographic lithography

Wang X, Xu J, Lee JCW, Pang YK, Tam WY, Chan CT, Sheng P

APPLIED PHYSICS LETTERS 88 (5): Art. No. 051901 JAN 30 2006

WMINST Bylines (2001 – Present)

Self-assembled ZnO nano-crystals and exciton lasing at room temperature

Tang ZK, Kawasaki M, Ohtomo A, Koinuma H, Segawa Y

JOURNAL OF CRYSTAL GROWTH 287 (1): 169-179 JAN 18 2006

Friction and adhesion between C-60 single crystal surfaces and AFM tips: Effects of the orientational phase transition

Liang Q, Li HN, Xu YB, Xiao XD

JOURNAL OF PHYSICAL CHEMISTRY B 110 (1): 403-409 JAN 12 2006

The size-dependent growth direction of ZnSe nanowires

Cai Y, Chan SK, Soar IK, Chan YT, Su DS, Wang N

ADVANCED MATERIALS 18 (1): 109-114 JAN 5 2006

Hydrothermal synthesis and optical properties of ZnO nanostructured films directly grown from/on zinc substrates

Fang YP, Wen XG, Yang SH, Pang Q, Ding L, Wang JN, Ge WK

JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY 36 (2): 227-234 NOV 2005

Observation of large Hall sensitivity in thin Fe-Ge amorphous composite films

Liu H, Zheng RK, Zhang XX

JOURNAL OF APPLIED PHYSICS 98 (8): Art. No. 086105 OCT 15 2005

Photonic band gap effect and structural color from silver nanoparticle gelatin emulsion

Kok MH, Ma R, Lee JCW, Tam WY, Chan CT, Sheng P, Cheah KW

PHYSICAL REVIEW E 72 (4): Art. No. 047601 Part 2, OCT 2005

Large enhancement of phononic gap in periodic and quasiperiodic elastic composites by using air inclusions

Lai Y, Zhang ZQ

ZEITSCHRIFT FUR KRISTALLOGRAPHIE 220 (9-10): 877-883 2005

Chiral microstructures (spirals) fabrication by holographic lithography

Pang YK, Lee JCW, Lee HF, Tam WY, Chan CT, Sheng P

OPTICS EXPRESS 13 (19): 7615-7620 SEP 19 2005

Synthesis of large optically clear AlPO₄-5 single crystals

Jiang FY, Zhai JP, Ye JT, Han JR, Tang ZK

JOURNAL OF CRYSTAL GROWTH 283 (1-2): 108-114 SEP 15 2005

WMINST Bylines (2001 – Present)

Room temperature growth of CuO nanorod arrays on copper and their application as a cathode in dye-sensitized solar cells

Anandan S, Wen XG, Yang SH

MATERIALS CHEMISTRY AND PHYSICS 93 (1): 35-40 SEP 15 2005

Microscopic surface patterning by rubbing induced dewetting

Zhang XY, Xie FC, Tsui OKC

POLYMER 46 (19): 8416-8421 SEP 8 2005

Parallel-field electrorheological clutch: Enhanced high shear rate performance

Liu LY, Huang XX, Shen C, Liu ZY, Shi J, Wen WJ, Sheng P

APPLIED PHYSICS LETTERS 87 (10): Art. No. 104106 SEP 5 2005

ZnO nanobelt arrays grown directly from and on zinc substrates: Synthesis, characterization, and applications

Wen XG, Fang YP, Pang Q, Yang CL, Wang JN, Ge WK, Wong KS, Yang SH

JOURNAL OF PHYSICAL CHEMISTRY B 109 (32): 15303-15308 AUG 18 2005

Structural transition in bidispersed electrorheological fluids

Huang XX, Tam WY, Sheng P

PHYSICAL REVIEW E 72 (2): Art. No. 020501 Part 1, AUG 2005

Liquid crystal pretilt control by inhomogeneous surfaces

Wan JTK, Tsui OKC, Kwok HS, Sheng P

PHYSICAL REVIEW E 72 (2): Art. No. 021711 Part 1, AUG 2005

Hydrodynamic slip boundary condition at chemically patterned surfaces: A continuum deduction from molecular dynamics

Qian TZ, Wang XP, Sheng P

PHYSICAL REVIEW E 72 (2): Art. No. 022501 Part 1, AUG 2005

Density functional study of oxygen adsorption on 4-angstrom carbon nanotubes

Liu HJ, Chan CT, Liu ZY, Shi J

PHYSICAL REVIEW B 72 (7): Art. No. 075437 AUG 2005

Thermally activated carrier transfer processes in InGaN/GaN multi-quantum-well light-emitting devices

Yang CL, Ding L, Wang JN, Fung KK, Ge WK, Liang H, Yu LS, Qi YD, Wang DL, Lu ZD, Lau KM

JOURNAL OF APPLIED PHYSICS 98 (2): Art. No. 023703 JUL 15 2005

WMINST Bylines (2001 – Present)

Memory effects in a nanoparticle system: Low-field magnetization and ac susceptibility measurements

Zheng RK, Gu HW, Xu B, Zhang XX

PHYSICAL REVIEW B 72 (1): Art. No. 014416 JUL 2005

Current dissipation in thin superconducting wires: A numerical evaluation using the string method

Qian T, Ren WQ, Sheng P

PHYSICAL REVIEW B 72 (1): Art. No. 014512 JUL 2005

Raman spectra and thermal stability analysis of 0.4 nm freestanding single-walled carbon nanotubes

Ye JT, Tang ZK

PHYSICAL REVIEW B 72 (4): Art. No. 045414 JUL 2005

Theoretical study of the adsorption of H-2 on (3,3) carbon nanotubes

Chen G, Gong XG, Chan CT

PHYSICAL REVIEW B 72 (4): Art. No. 045444 JUL 2005

Experimental verification of numerically optimized photonic crystal injector, Y-splitter, and bend

Ayre M, Karle TJ, Wu LJ, Davies T, Krauss TF

IEEE JOURNAL ON SELECTED AREAS IN COMMUNICATIONS 23 (7): 1390-1395 JUL 2005

Structural characterization of mesoporous silica nanowire arrays grown in porous alumina templates

Jin KW, Yao BD, Wang N

CHEMICAL PHYSICS LETTERS 409 (4-6): 172-176 JUN 30 2005

Dewetting induced by complete versus nonretarded van der Waals forces

Zhao HP, Wang YJ, Tsui OKC

LANGMUIR 21 (13): 5817-5824 JUN 21 2005

Photoreflectance of 0.4-nm single-walled carbon nanotubes

Yang CL, Hou B, Li IL, Li ZM, Tang ZK, Wang JN, Liu HJ, Ge WK

PHYSICAL REVIEW B 71 (23): Art. No. 233404 JUN 2005

Single crystalline trigonal selenium nanotubes and nanowires synthesized by sonochemical process

Li XM, Li Y, Li SQ, Zhou WW, Chu HB, Chen W, Li IL, Tang ZK

CRYSTAL GROWTH & DESIGN 5 (3): 911-916 MAY-JUN 2005

Low-temperature synthesis of single crystalline Ag₂S nanowires on silver substrates

Wen XG, Wang SH, Xie YT, Li XY, Yang SH

JOURNAL OF PHYSICAL CHEMISTRY B 109 (20): 10100-10106 MAY 26 2005

WMINST Bylines (2001 – Present)

Copper-based nanowire materials: Templated syntheses, characterizations, and applications

Wen XG, Xie YT, Choi CL, Wan KC, Li XY, Yang SH

LANGMUIR 21 (10): 4729-4737 MAY 10 2005

Experimental and theoretical investigation of single Cu, Ag, and Au atoms adsorbed on Si(111)-(7x7)

Zhang C, Chen G, Wang KD, Yang HW, Su T, Chan CT, Loy MMT, Xiao XD

PHYSICAL REVIEW LETTERS 94 (17): Art. No. 176104 MAY 6 2005

Electronic transport studies on Sb_{1-x}(SiO₂)_x films

Du J, Li ZQ, Lin JJ, Liu H, Zheng RK, Chen P, Rosenbaum R, Zhang XX

JOURNAL OF PHYSICS-CONDENSED MATTER 17 (17): 2553-2562 MAY 4 2005

Continuous liquid crystal pretilt control through textured substrates (vol 85, pg 5556, 2004)

Lee FK, Zhang B, Sheng P, Kwok HS, Tsui OKC

APPLIED PHYSICS LETTERS 86 (14): Art. No. 149903 APR 4 2005

Formation and phase transformation of selenium nanowire arrays in anodic porous alumina templates

Zhang XY, Cai Y, Miao JY, Ng KY, Chan YF, Zhang XX, Wang N

JOURNAL OF CRYSTAL GROWTH 276 (3-4): 674-679 APR 1 2005

Neutral nanoparticle-based display

Wen WJ, Weisbuch C, Phuong DM, Lu G, Ge W, Chan CT, Sheng P

NANOTECHNOLOGY 16 (4): 598-601 APR 2005

Mechanism of the giant electrorheological effect

Sheng P

INTERNATIONAL JOURNAL OF MODERN PHYSICS B 19 (7-9): 1157-1162 Part 1 Sp. Iss. SI, APR 10 2005

Anomalous relationship between hardness and wear properties of a superelastic nickel-titanium alloy (vol 84, pg 1076, 2004)

Qian LM, Xiao XD, Sun QP, Yu TX

APPLIED PHYSICS LETTERS 86 (12): Art. No. 129901 MAR 21 2005

Adsorption and diffusion of a single Ag atom on Si(111)7X7

Wang X

ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY 229: U740-U741 588-COLL Part 1, MAR 13 2005

WMINST Bylines (2001 – Present)

Instability of 0.4 nm carbon nanotubes in a zeolite template under ultraviolet laser irradiation

Bai M, Li IL, Tang ZK, Xiao XD

APPLIED PHYSICS LETTERS 86 (9): Art. No. 093108 FEB 28 2005

Synthesis of ultrathin zinc nanowires and nanotubes by vapor transport

Wen XG, Fang YP, Yang SH

ANGEWANDTE CHEMIE-INTERNATIONAL EDITION 44 (23): 3562-3565 2005

Time-dependent tunneling spectroscopy for studying surface diffusion confined in nanostructures

Wang KD, Zhang C, Loy MMT, Xiao XD

PHYSICAL REVIEW LETTERS 94 (3): Art. No. 036103 JAN 28 2005

Controlled growth of large-area, uniform, vertically aligned arrays of α -Fe₂O₃ nanobelts and nanowires

Wen XG, Wang SH, Ding Y, Wang ZL, Yang SH

JOURNAL OF PHYSICAL CHEMISTRY B 109 (1): 215-220 JAN 13 2005

Transport and magnetotransport properties of cold-pressed CrO₂ powder

Liu H, Zheng RK, Wang Y, Bai HL, Zhang XX

PHYSICA STATUS SOLIDI A-APPLIED RESEARCH 202 (1): 144-150 JAN 2005

Continuous liquid crystal pretilt control through textured substrates

Lee FK, Zhang B, Sheng P, Kwok HS, Tsui OKC

APPLIED PHYSICS LETTERS 85 (23): 5556-5558 DEC 6 2004

Unusual electronic and photonic behaviors of linear poly(silolylacetylene)s and hyperbranched poly(silolylenearylene)s

Haussler M, Chen JW, Lam JWY, Tang BZ

JOURNAL OF NONLINEAR OPTICAL PHYSICS & MATERIALS 13 (3-4): 335-345 DEC 2004

Extraordinary Hall effect in (Ni₈₀Fe₂₀)_x(SiO₂)_(1-x) thin films

Liu H, Lee FK, Zheng RK, Zhang XX, Tsui OKC

PHYSICAL REVIEW B 70 (22): Art. No. 224431 DEC 2004

Low temperature electrical transport properties of RuO₂ and IrO₂ single crystals

Lin JJ, Huang SM, Lin YH, Lee TC, Liu H, Zhang XX, Chen RS, Huang YS

JOURNAL OF PHYSICS-CONDENSED MATTER 16 (45): 8035-8041 NOV 17 2004

WMINST Bylines (2001 – Present)

Inverted hysteresis in exchange biased Cr₂O₃ coated CrO₂ particles

Zheng RK, Liu H, Wang Y, Zhang XX

JOURNAL OF APPLIED PHYSICS 96 (9): 5370-5372 NOV 1 2004

Conjugated polymers with linear and hyperbranched structures and advanced materials properties

Lam JWY, Peng H, Haussler M, Zheng RH, Tang BZ

MOLECULAR CRYSTALS AND LIQUID CRYSTALS 415: 43-60 2004

Optical micro-characterization of single-walled carbon nanotubes extracted from AFI crystals by visible emission and Raman scattering

Ye JT, Naka N, Morihira Y, Tang ZK, Ge WK, Sheng P, Kudryashov I, Nagasawa N

JAPANESE JOURNAL OF APPLIED PHYSICS PART 1-REGULAR PAPERS SHORT NOTES & REVIEW PAPERS 43 (10): 7354-7355 OCT 2004

Exchange bias and the origin of magnetism in Mn-doped ZnO tetrapods

Zheng RK, Liu H, Zhang XX, Roy VAL, Djuricic AB

APPLIED PHYSICS LETTERS 85 (13): 2589-2591 SEP 27 2004

Comment on "Memory effects in an interacting magnetic nanoparticle system"

Zheng RK, Gu HW, Zhang XX

PHYSICAL REVIEW LETTERS 93 (13): Art. No. 139702 SEP 24 2004

Cd_{1-x}Mn_xS quantum dots: new synthesis and characterization

Pang Q, Guo BC, Yang CL, Yang SH, Gong ML, Ge WK, Wang JN

JOURNAL OF CRYSTAL GROWTH 269 (2-4): 213-217 SEP 1 2004

Power-law slip profile of the moving contact line in two-phase immiscible flows

Qian TZ, Wang XP, Sheng P

PHYSICAL REVIEW LETTERS 93 (9): Art. No. 094501 AUG 27 2004

Synthesis of 4 angstrom single-walled carbon nanotubes in catalytic Si-substituted AlPO₄₋₅ molecular sieves

Li ZM, Zhai JP, Liu HJ, Li IL, Chan CT, Sheng P, Tang ZK

APPLIED PHYSICS LETTERS 85 (7): 1253-1255 AUG 16 2004

Hyperbranched polyynes: Syntheses, photoluminescence, light refraction, thermal curing, metal complexation, pyrolytic ceramization, and soft magnetization

Haussler M, Zheng RH, Lam JWY, Tong H, Dong HC, Tang BZ

JOURNAL OF PHYSICAL CHEMISTRY B 108 (30): 10645-10650 JUL 29 2004

WMINST Bylines (2001 – Present)

Particle size scaling of the giant electrorheological effect

Wen WJ, Huang XX, Sheng P

APPLIED PHYSICS LETTERS 85 (2): 299-301 JUL 12 2004

Efficient visible photoluminescence from carbon nanotubes in zeolite templates

Guo JD, Yang CL, Li ZM, Bai M, Liu HJ, Li GD, Wang EG, Chan CT, Tang ZK, Ge WK, Xiao XD

PHYSICAL REVIEW LETTERS 93 (1): Art. No. 017402 JUL 2 2004

Chemistry-mediated two-dimensional to three-dimensional transition of In thin films

Wei HL, Huang HC, Woo CH, Zhang XX, Zhou LG

APPLIED PHYSICS LETTERS 84 (26): 5401-5403 JUN 28 2004

Linear or branched structure? - Probing molecular architectures of fullerene-styrene copolymers by size exclusion chromatographs with online right-angle laser-light scattering and differential viscometric detectors

Huang Y, Peng H, Lam JWY, Xu ZD, Leung FSM, Mays JW, Tang BZ

POLYMER 45 (14): 4811-4817 JUN 21 2004

Training effect of exchange bias in gamma-Fe₂O₃ coated Fe nanoparticles

Zheng RK, Wen GH, Fung KK, Zhang XX

PHYSICAL REVIEW B 69 (21): Art. No. 214431 JUN 2004

A symmetry-adapted force-constant lattice-dynamical model for single-walled carbon nanotubes

Li ZM, Popov VN, Tang ZK

SOLID STATE COMMUNICATIONS 130 (10): 657-661 JUN 2004

Structure and magnetotransport properties of Fe₃O₄-SiO₂ composite films reactively sputtered at room temperature

Liu H, Jiang EY, Bai HL, Zheng RK

JOURNAL OF APPLIED PHYSICS 95 (10): 5661-5665 MAY 15 2004

Giant exchange bias and the vertical shifts of hysteresis loops in gamma-Fe₂O₃-coated Fe nanoparticles

Zheng RK, Wen GH, Fung KK, Zhang XX

JOURNAL OF APPLIED PHYSICS 95 (9): 5244-5246 MAY 1 2004

Raman spectroscopy of single wall carbon nanotubes grown in zeolite crystals

Hulman M, Kuzmany H, Dubay O, Kresse G, Li L, Tang ZK, Knoll P, Kaindl R

CARBON 42 (5-6): 1071-1075 2004

WMINST Bylines (2001 – Present)

Giant Hall effect in metal/insulator composite films

Liu H, Zheng RK, Wen GH, Zhang XX

VACUUM 73 (3-4): 603-610 APR 19 2004

Carbon nanotubes-zeolite complex: A Li-intercalated compound with high storage capacity

Liu HJ, Li ZM, Liang Q, Tang ZK, Chan CT

APPLIED PHYSICS LETTERS 84 (14): 2649-2651 APR 5 2004

Frictional properties of alkanethiol self-assembled monolayers with different thermal annealing

Zhang C, Liang Q, Wang B, Xiao XD

JOURNAL OF APPLIED PHYSICS 95 (7): 3411-3416 APR 1 2004

Microstructural and magnetic properties of passivated Co nanoparticle films

Wen GH, Zheng RK, Fung KK, Zhang XX

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS 270 (3): 407-412 APR 2004

Formation of porous films and vesicular fibers via self-organization of an amphiphilic chiral oligomer

Li BS, Chen JW, Zhu CF, Leung KKL, Wan LJ, Bai CL, Tang BZ

LANGMUIR 20 (6): 2515-2518 MAR 16 2004

Synthesis and characterization of Se nano-structures inside porous zeolite crystals

Li IL, Launois P, Tang ZK

APPLIED SURFACE SCIENCE 226 (1-3): 36-40 MAR 15 2004

Curvature effect in ultra-small single-walled carbon nanotubes

Li IL, Tang ZK

APPLIED SURFACE SCIENCE 226 (1-3): 72-77 MAR 15 2004

Structure and magnetic properties of polycrystalline Fe₃O₄ films deposited by reactive sputtering at room temperature

Liu H, Jiang EY, Zheng RK, Bai HL

PHYSICA STATUS SOLIDI A-APPLIED RESEARCH 201 (4): 739-744 MAR 2004

Synthesis, thermal stability, and light-emitting properties of hyperbranched poly(phenylene-germolene)s

Law CCW, Chen JW, Lam JWY, Peng H, Tang BZ

JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS 14 (1): 39-51 MAR 2004

Anomalous relationship between hardness and wear properties of a superelastic nickel-titanium alloy

Qian LM, Xiao XD, Sun QP, Yu TX

APPLIED PHYSICS LETTERS 84 (7): 1076-1078 FEB 16 2004

WMINST Bylines (2001 – Present)

Cr₂O₃ surface layer and exchange bias in an acicular CrO₂ particle

Zheng RK, Liu H, Wang Y, Zhang XX

APPLIED PHYSICS LETTERS 84 (5): 702-704 FEB 2 2004

Optical nano-tomography on photosensitive single-wall carbon nanotube arrays in zeolite crystals

Nagasawa N, Sugiyama H, Naka N, Kudryashov I, Li ZM, Tang ZK

JAPANESE JOURNAL OF APPLIED PHYSICS PART 1-REGULAR PAPERS SHORT NOTES &
REVIEW PAPERS 43 (2): 868-871 FEB 2004

First-order liquid crystal orientation transition on inhomogeneous substrates

Tsui OKC, Lee FK, Zhang B, Sheng P

PHYSICAL REVIEW E 69 (2): Art. No. 021704 Part 1, FEB 2004

Syntheses, hydrogen-bonding interactions, tunable chain helicities, and cooperative supramolecular associations and dissociations of poly(phenylacetylene)s bearing L-valine pendants: Toward the development of proteomimetic polyenes

Cheuk KKL, Lam JWY, Lai LM, Dong YP, Tang BZ

MACROMOLECULES 36 (26): 9752-9762 DEC 30 2003

Thickness dependence of magnetic and magneto-transport properties of polycrystalline Fe₃O₄ films prepared by reactive sputtering at room temperature

Liu H, Jiang EY, Bai HL, Zheng RK, Zhang XX

JOURNAL OF PHYSICS D-APPLIED PHYSICS 36 (23): 2950-2953 DEC 7 2003

Preparation and characterization of an ultrahydrophobic surface based on a stearic acid self-assembled monolayer over polyethyleneimine thin films

Ren SL, Yang SR, Zhao YP, Yu TX, Xiao XD

SURFACE SCIENCE 546 (2-3): 64-74 DEC 1 2003

Structures and transport properties of polycrystalline Fe₃O₄ films

Liu H, Jiang EY, Zheng RK, Bai HL

JOURNAL OF PHYSICS-CONDENSED MATTER 15 (46): 8003-8009 NOV 26 2003

Multifrequency gap solitons in nonlinear photonic crystals

Xie P, Zhang ZQ

PHYSICAL REVIEW LETTERS 91 (21): Art. No. 213904 NOV 21 2003

WMINST Bylines (2001 – Present)

Liquid crystal orientation transition on microtextured substrates

Zhang BS, Lee FK, Tsui OKC, Sheng P

PHYSICAL REVIEW LETTERS 91 (21): Art. No. 215501 NOV 21 2003

Large band gaps in elastic phononic crystals with air inclusions

Lai Y, Zhang ZQ

APPLIED PHYSICS LETTERS 83 (19): 3900-3902 NOV 10 2003

Some views about the controversial dewetting morphology of polystyrene films

Tsui OKC, Wang YJ, Zhao H, Du B

EUROPEAN PHYSICAL JOURNAL E 12 (3): 417-423 NOV 2003

The giant electrorheological effect in suspensions of nanoparticles

Wen WJ, Huang XX, Yang SH, Lu KQ, Sheng P

NATURE MATERIALS 2 (11): 727-730 NOV 2003

Hyperbranched polyarylenes

Hausler M, Lam JWY, Zheng RH, Peng H, Luo JD, Chen JW, Law CCW, Tang BZ

COMPTES RENDUS CHIMIE 6 (8-10): 833-842 AUG-OCT 2003

Novel properties of 0.4 nm single-walled carbon nanotubes templated in the channels of AlPO₄-5 single crystals

Tang ZK, Wang N, Zhang XX, Wang JN, Chan CT, Sheng P

NEW JOURNAL OF PHYSICS 5: Art. No. 146 OCT 27 2003

Large room-temperature spin-dependent tunneling magnetoresistance in polycrystalline Fe₃O₄ films

Liu H, Jiang EY, Bai HL, Zheng RK, Wei HL, Zhang XX

APPLIED PHYSICS LETTERS 83 (17): 3531-3533 OCT 27 2003

Helical disubstituted polyacetylenes: Synthesis and chiroptical properties of poly(phenylpropiolate)s

Lam JWY, Dong YP, Cheuk KKL, Tang BZ

MACROMOLECULES 36 (21): 7927-7938 OCT 21 2003

Fabrication and magnetic properties of ultrathin Fe nanowire arrays

Zhang XY, Wen GH, Chan YF, Zheng RK, Zhang XX, Wang N

APPLIED PHYSICS LETTERS 83 (16): 3341-3343 OCT 20 2003

Optical nonlinearity of nanocrystalline Au/ZnO composite films

Liao HB, Wen WJ, Wong GKL, Yang GZ

OPTICS LETTERS 28 (19): 1790-1792 OCT 1 2003

WMINST Bylines (2001 – Present)

Electrical and optical properties of ultra-small carbon nanotubes arrayed in channels of zeolite single crystals

Tang ZK, Li ZM, Li IL, Zhang XX, Wang N, Wang HN, Sheng P

MATERIALS TRANSACTIONS 44 (10): 2066-2069 OCT 2003

Study by X-ray diffraction and Raman spectroscopy of a Dy@C-82 single crystal

Wagberg T, Launois P, Moret R, Huang HJ, Yang SH, Li IL, Tang ZK

EUROPEAN PHYSICAL JOURNAL B 35 (3): 371-375 OCT 2003

ZnSe nanowires epitaxially grown on GaP(111) substrates by molecular-beam epitaxy

Chan YF, Duan XF, Chan SK, Sou IK, Zhang XX, Wang N

APPLIED PHYSICS LETTERS 83 (13): 2665-2667 SEP 29 2003

Optical properties of organic dyes in nanoporous zeolite crystals

Li IL, Tang ZK, Xiao XD, Yang CL, Ge WK

APPLIED PHYSICS LETTERS 83 (12): 2438-2440 SEP 22 2003

Large-area two-dimensional mesoscale quasi-crystals

Wang X, Ng CY, Tam WY, Chan CT, Sheng P

ADVANCED MATERIALS 15 (18): 1526-+ SEP 16 2003

Infrared passbands from fractal slit patterns on a metal plate

Wen WJ, Yang Z, Xu G, Chen YH, Zhou L, Ge WK, Chan CT, Sheng P

APPLIED PHYSICS LETTERS 83 (11): 2106-2108 SEP 15 2003

Modifying the nanostructure of Co[SiO₂] samples by controlled annealing

Denardin JC, Knobel M, Socolovsky LM, Brandl AL, Zhang XX

IEEE TRANSACTIONS ON MAGNETICS 39 (5): 2767-2769 Part 2, SEP 2003

Amino acid-containing polyacetylenes: Synthesis, hydrogen bonding, chirality transcription, and chain helicity of amphiphilic poly(phenylacetylene)s carrying L-leucine pendants

Cheuk KKL, Lam JWY, Chen JW, Lai LM, Tang BZ

MACROMOLECULES 36 (16): 5947-5959 AUG 12 2003

Controlled reactions on a copper surface: Synthesis and characterization of nanostructured copper compound films

Zhang WX, Wen XG, Yang SH

INORGANIC CHEMISTRY 42 (16): 5005-5014 AUG 11 2003

WMINST Bylines (2001 – Present)

Self-assembling of an amphiphilic polyacetylene carrying L-leucine pendants: A homopolymer case

Li BS, Cheuk KKL, Yang DL, Lam JWY, Wan LJ, Bai CL, Tang BZ

MACROMOLECULES 36 (15): 5447-5450 JUL 29 2003

Temperature dependence of field emission from cupric oxide nanobelt films

Chen J, Deng SZ, Xu NS, Zhang WX, Wen XG, Yang SH

APPLIED PHYSICS LETTERS 83 (4): 746-748 JUL 28 2003

Synthesis of Cu(OH)(2) and CuO nanoribbon arrays on a copper surface

Wen XG, Zhang WX, Yang SH

LANGMUIR 19 (14): 5898-5903 JUL 8 2003

Molecular scale contact line hydrodynamics of immiscible flows

Qian TZ, Wang XP, Sheng P

PHYSICAL REVIEW E 68 (1): Art. No. 016306 Part 2, JUL 2003

Effects due to disorder on photonic crystal-based waveguides

Kwan KC, Zhang XD, Zhang ZQ, Chan CT

APPLIED PHYSICS LETTERS 82 (25): 4414-4416 JUN 23 2003

Hyperbranched poly(phenylenesilolene)s: Synthesis, thermal stability, electronic conjugation, optical power limiting, and cooling-enhanced light emission

Chen JW, Peng H, Law CCW, Dong YP, Lam JWY, Williams ID, Tang BZ

MACROMOLECULES 36 (12): 4319-4327 JUN 17 2003

Copper thin film of alternating textures

Huang HC, Wei HL, Woo CH, Zhang XX

APPLIED PHYSICS LETTERS 82 (24): 4265-4267 JUN 16 2003

Synthesis and optical properties of hyperbranched polyarylenes and linear polyacetylenes

Xie ZL, Peng H, Lam JWY, Chen JW, Zheng YH, Qiu CF, Kwok HS, Tang BZ

MACROMOLECULAR SYMPOSIA 195: 179-184 JUN 2003

Synthesis and tunable chiroptical properties of helical poly(phenylpropiolate)s

Dong YP, Lam JWY, Cheuk KKL, Tang BZ

JOURNAL OF POLYMER MATERIALS 20 (2): 189-193 JUN 2003

Silole-containing linear and hyperbranched polymers: Synthesis, thermal stability, light emission, nano-dimensional aggregation, and optical power limiting

Lam JWY, Chen JW, Law CCW, Peng H, Xie ZL, Cheuk KKL, Kwok HS, Tang BZ

WMINST Bylines (2001 – Present)

MACROMOLECULAR SYMPOSIA 196: 289-300 JUN 2003

Single-crystalline scroll-type nanotube arrays of copper hydroxide synthesized at room temperature

Zhang WX, Wen XG, Yang SH, Berta Y, Wang ZL

ADVANCED MATERIALS 15 (10): 822-+ MAY 16 2003

Synthesis and characterization of uniform arrays of copper sulfide nanorods coated with nanolayers of polypyrrole

Zhang WX, Wen XG, Yang SH

LANGMUIR 19 (10): 4420-4426 MAY 13 2003

Structural and magnetic properties of TM-SiO₂ (TM = Fe, Co, Ni) films

Socolovsky LM, Denardin JC, Brandl AL, Knobel M, Zhang XX

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS 262 (1): 102-106 MAY 2003

Effect of C-60 molecular rotation on nanotribology

Liang Q, Tsui OKC, Xu YB, Li HN, Xiao XD

PHYSICAL REVIEW LETTERS 90 (14): Art. No. 146102 APR 11 2003

Hyperbranched organometallic polymers: Synthesis and properties of poly(ferrocenylenesilyne)s

Sun QH, Xu KT, Peng H, Zheng RH, Haussler M, Tang BZ

MACROMOLECULES 36 (7): 2309-2320 APR 8 2003

Synthesis, light emission, nanoaggregation, and restricted intramolecular rotation of 1,1-substituted 2,3,4,5-tetraphenylsiloles

Chen JW, Law CCW, Lam JWY, Dong YP, Lo SMF, Williams ID, Zhu DB, Tang BZ

CHEMISTRY OF MATERIALS 15 (7): 1535-1546 APR 8 2003

Enhanced photothermal effect in Si nanowires

Wang N, Yao BD, Chan YF, Zhang XY

NANO LETTERS 3 (4): 475-477 APR 2003

Raman spectra of lithium doped single-walled 0.4 nm carbon nanotubes

Ye JT, Li ZM, Tang ZK, Saito R

PHYSICAL REVIEW B 67 (11): Art. No. 113404 MAR 15 2003

Ultra-small single-walled carbon nanotubes and their superconductivity properties

Tang ZK, Zhang LY, Wang N, Zhang XX, Wang JN, Li GD, Li ZM, Wen GH, Chan CT, Sheng P

SYNTHETIC METALS 133: 689-693 Sp. Iss. SI, MAR 13 2003

WMINST Bylines (2001 – Present)

Chirality-dependent curvature effect in smallest single-walled carbon nanotubes

Li IL, Li GD, Liu HJ, Chan CT, Tang ZK

APPLIED PHYSICS LETTERS 82 (9): 1467-1469 MAR 3 2003

Rupturing of polymer films with rubbing-induced surface defects

Du B, Xie FC, Wang YJ, Tsui OKC

CHINESE JOURNAL OF POLYMER SCIENCE 21 (2): 123-127 MAR 2003

Transmission electron microscopy study of single-walled 0.4 nm carbon nanotubes

Chan YF, Peng HY, Tang ZK, Wang N

CHEMICAL PHYSICS LETTERS 369 (5-6): 541-548 FEB 28 2003

Silole-containing polyacetylenes. Synthesis, thermal stability, light emission, nanodimensional aggregation, and restricted intramolecular rotation

Chen JW, Xie ZL, Lam JWY, Law CCW, Tang BZ

MACROMOLECULES 36 (4): 1108-1117 FEB 25 2003

Kinetics-limited surface structures at the nanoscale

Huang HC, Woo CH, Wei HL, Zhang XX

APPLIED PHYSICS LETTERS 82 (8): 1272-1274 FEB 24 2003

Blocking phenomena in granular magnetic alloys through magnetization, Hall effect, and magnetoresistance experiments

Denardin JC, Pakhomov AB, Brandl AL, Socolovsky LM, Knobel M, Zhang XX

APPLIED PHYSICS LETTERS 82 (5): 763-765 FEB 3 2003

Effect of structural parameter on field emission properties of semiconducting copper sulphide nanowire films

Chen J, Deng SZ, She JC, Xu NS, Zhang WX, Wen XG, Yang SH

JOURNAL OF APPLIED PHYSICS 93 (3): 1774-1777 FEB 1 2003

Gap solitons and soliton trains in finite-sized two-dimensional periodic and quasiperiodic photonic crystals

Xie P, Zhang ZQ, Zhang XD

PHYSICAL REVIEW E 67 (2): Art. No. 026607 Part 2, FEB 2003

Fabrication of mesoscopic devices using atomic force macroscopic electric field induced oxidation

Lee FK, Wen GH, Zhang XX, Tsui OKC

JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B 21 (1): 162-167 JAN-FEB 2003

WMINST Bylines (2001 – Present)

Synthesis and hierarchical structures of amphiphilic polyphenyl acetylenes carrying L-valine pendants

Li BS, Cheuk KKL, Ling LS, Chen JW, Xiao XD, Bai CL, Tang BZ

MACROMOLECULES 36 (1): 77-85 JAN 14 2003

Formation mechanism of TiO₂ nanotubes

Yao BD, Chan YF, Zhang XY, Zhang WF, Yang ZY, Wang N

APPLIED PHYSICS LETTERS 82 (2): 281-283 JAN 13 2003

Chirality dependence of the energetics and electronic properties of Li-intercalated 4 angstrom carbon nanotubes

Liu HJ, Chan CT

SOLID STATE COMMUNICATIONS 125 (2): 77-82 JAN 2003

Blue luminescence of poly[1-phenyl-5-(alpha-naphthoxy)pentynyl]

Xie ZL, Lam JWY, Dong YP, Qiu CF, Kwok HS, Tang BZ

OPTICAL MATERIALS 21 (1-3): 231-234 JAN 2003

Synthesis and optical properties of hyperbranched polyarylenes

Peng H, Luo JD, Cheng L, Lam JWY, Xu KT, Dong YP, Zhang DZ, Huang Y, Xu ZD, Tang B

OPTICAL MATERIALS 21 (1-3): 315-320 JAN 2003

Mesomorphic and luminescent properties of disubstituted polyacetylenes bearing biphenyl pendants

Lam JWY, Law CK, Dong YP, Wang JN, Ge WK, Tang B

OPTICAL MATERIALS 21 (1-3): 321-324 JAN 2003

Engineering kinetic barriers in copper metallization

Huang HC, Wei HL, Woo CH, Zhang XX

APPLIED PHYSICS LETTERS 81 (23): 4359-4361 DEC 2 2002

Solution phase synthesis of Cu(OH)(2) nanoribbons by coordination self-assembly using Cu₂S nanowires as precursors

Wen XG, Zhang WX, Yang SH

NANO LETTERS 2 (12): 1397-1401 DEC 2002

Growth shapes of Ag crystallites on the Si(111) surface

Tang WX, Man KL, Huang HC, Woo CH, Altman MS

JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B 20 (6): 2492-2495 NOV-DEC 2002

WMINST Bylines (2001 – Present)

Characterization of semiconductor quantum dots

Wang JN, Yang CL, Wang SH, Guo L, Yang SH, Sou IK, Ge WK

INTERNATIONAL JOURNAL OF MODERN PHYSICS B 16 (28-29): 4363-4372 NOV 20 2002

Functional polyacetylenes: Synthesis, thermal stability, liquid crystallinity, and light emission of polypropiolates

Lam JWY, Luo JD, Dong YP, Cheuk KKL, Tang BZ

MACROMOLECULES 35 (22): 8288-8299 OCT 22 2002

Consequences of local gauge symmetry in empirical tight-binding theory

Foreman BA

PHYSICAL REVIEW B 66 (16): Art. No. 165212 OCT 15 2002

Photo-induced current-modulation in zeolite (AFI) crystals containing single wall carbon nanotubes (SWCNs)

Kamada Y, Naka M, Nagasawa N, Li ZM, Tang ZK

PHYSICA B-CONDENSED MATTER 323 (1-4): 239-241 OCT 2002

Properties of 4 angstrom carbon nanotubes from first-principles calculations

Liu HJ, Chan CT

PHYSICAL REVIEW B 66 (11): Art. No. 115416 SEP 15 2002

Photo-irradiation effects on electrical conduction of single wall carbon nanotubes in zeolite single crystals

Kamada Y, Naka N, Saito S, Nagasawa N, Li ZM, Tang ZK

SOLID STATE COMMUNICATIONS 123 (9): 375-378 2002

Light amplification and localization in random amplifying layered media: Statistics from physical solutions

Nam CK, Zhang ZQ

PHYSICAL REVIEW B 66 (7): Art. No. 073101 AUG 15 2002

Quantum interference and the giant Hall effect in percolating systems

Wan CC, Sheng P

PHYSICAL REVIEW B 66 (7): Art. No. 075309 AUG 15 2002

Thermal oxidation of Cu₂S nanowires: A template method for the fabrication of mesoscopic Cu_xO(x=1,2) wires

Wang SH, Huang QJ, Wen XG, Li XY, Yang SH

PHYSICAL CHEMISTRY CHEMICAL PHYSICS 4 (14): 3425-3429 2002

WMINST Bylines (2001 – Present)

Formation of ZnO nanostructures by a simple way of thermal evaporation

Yao BD, Chan YF, Wang N

APPLIED PHYSICS LETTERS 81 (4): 757-759 JUL 22 2002

Polycyclotrimerization of diynes: Synthesis and properties of hyperbranched polyphenylenes

Xu KT, Peng H, Sun QH, Dong YP, Salhi F, Luo JD, Chen JW, Huang Y, Zhang DZ, Xu ZD, Tang BZ

MACROMOLECULES 35 (15): 5821-5834 JUL 16 2002

Simple synthesis, outstanding thermal stability, and tunable light-emitting and optical-limiting properties of functional hyperbranched polyarylenes

Peng H, Cheng L, Luo JD, Xu KT, Sun QH, Dong YP, Salhi F, Lee PPS, Chen JW, Tang BZ

MACROMOLECULES 35 (14): 5349-5351 JUL 2 2002

Wave transport through thin slabs of random media with internal reflection: Ballistic to diffusive transition

Zhang XD, Zhang ZQ

PHYSICAL REVIEW E 66 (1): Art. No. 016612 Part 2, JUL 2002

Structure study of Se species in channels of AlPO₄-5 crystals

Li IL, Tang ZK

APPLIED PHYSICS LETTERS 80 (25): 4822-4824 JUN 24 2002

Visible emission of single-wall carbon nanotubes formed in micro-channels of zeolite crystals

Nagasawa N, Sugiyama H, Naka N, Kudryashov I, Watanabe M, Hayashi T, Bozovic I, Bozovic N, Li G, Li Z, Tang ZK

JOURNAL OF LUMINESCENCE 97 (3-4): 161-167 JUN 2002

Cu₂S/Au core/sheath nanowires prepared by a simple redox deposition method

Wen XG, Yang SH

NANO LETTERS 2 (5): 451-454 MAY 2002

Development of < 110 > texture in copper thin films

Wei HL, Huang HC, Woo CH, Zheng RK, Wen GH, Zhang XX

APPLIED PHYSICS LETTERS 80 (13): 2290-2292 APR 1 2002

Structural study of the 0.4-nm single-walled carbon nanotubes aligned in channels of AlPO₄-5 crystal

Li GD, Tang ZK, Wang N, Chen JS

CARBON 40 (6): 917-921 2002

WMINST Bylines (2001 – Present)

Liquid crystalline and light emitting polyacetylenes: Synthesis and properties of biphenyl-containing poly(1-alkynes) with different functional bridges and spacer lengths

Lam JWY, Dong YP, Cheuk KKL, Luo JD, Xie ZL, Kwok HS, Mo ZS, Tang BZ

MACROMOLECULES 35 (4): 1229-1240 FEB 12 2002

Structural and magnetic properties of Fe-Ge layer produced by Fe ion-implantation into germanium

Venugopal R, Sundaravel B, Wilson IH, Wang FW, Zhang XX

JOURNAL OF APPLIED PHYSICS 91 (3): 1410-1416 FEB 1 2002

Magnetic properties of nanoclusters formed by implantation of Fe into Ge using a metal-vapor vacuum arc ion source

Venugopal R, Sundaravel B, Cheung WY, Wilson IH, Wang FW, Zhang XX

PHYSICAL REVIEW B 65 (1): Art. No. 014418 JAN 1 2002

Growth of crystalline Cu₂S nanowire arrays on copper surface: Effect of copper surface structure, reagent gas composition, and reaction temperature

Wang SH, Yang SH

CHEMISTRY OF MATERIALS 13 (12): 4794-4799 DEC 2001

Carbon nanotube arrays prepared by MWCVD

Yao BD, Wang N

JOURNAL OF PHYSICAL CHEMISTRY B 105 (46): 11395-11398 NOV 22 2001

Engineering acoustic band gaps

Lai Y, Zhang XD, Zhang ZQ

APPLIED PHYSICS LETTERS 79 (20): 3224-3226 NOV 12 2001

Oxide-assisted nucleation and growth of copper sulphide nanowire arrays

Wang N, Fung KK, Wang S, Yang S

JOURNAL OF CRYSTAL GROWTH 233 (1-2): 226-232 NOV 2001

Anisotropic magnetocaloric effect in nanostructured magnetic clusters

Zhang XX, Wei HL, Zhang ZQ, Zhang LY

PHYSICAL REVIEW LETTERS 87 (15): Art. No. 157203 OCT 8 2001

Aggregation-induced emission of 1-methyl-1,2,3,4,5-pentaphenylsilole

Luo JD, Xie ZL, Lam JWY, Cheng L, Chen HY, Qiu CF, Kwok HS, Zhan XW, Liu YQ, Zhu DB, Tang BZ

CHEMICAL COMMUNICATIONS (18): 1740-1741 SEP 21 2001

WMINST Bylines (2001 – Present)

Polarized absorption spectra of single-walled 4 angstrom carbon nanotubes aligned in channels of an AlPO₄-5 single crystal

Li ZM, Tang ZK, Liu HJ, Wang N, Chan CT, Saito R, Okada S, Li GD, Chen JS, Nagasawa N, Tsuda S
PHYSICAL REVIEW LETTERS 87 (12): Art. No. 127401 SEP 17 2001

Superconductivity in 4 angstrom single-walled carbon nanotubes

Tang ZK, Zhang LY, Wang N, Zhang XX, Wen GH, Li GD, Wang JN, Chan CT, Sheng P
SCIENCE 292 (5526): 2462-2465 JUN 29 2001

Nucleation and growth of well-aligned, uniform-sized carbon nanotubes by microwave plasma chemical vapor deposition

Wang N, Yao BD
APPLIED PHYSICS LETTERS 78 (25): 4028-4030 JUN 18 2001

Rapid fabrication of three-dimensional porous films with biomimetic patterns by natural evaporation of amphiphilic polyacetylene solutions under ambient conditions

Salhi F, Cheuk KKL, Sun QH, Lam JWY, Cha JAK, Li G, Li BS, Luo JD, Chen JW, Tang BZ
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY 1 (2): 137-141 JUN 2001

Giant Hall effect in nonmagnetic granular metal films

Zhang XX, Wan CC, Liu H, Li ZQ, Sheng P, Lin JJ
PHYSICAL REVIEW LETTERS 86 (24): 5562-5565 JUN 11 2001

Tuning the chain helicity and organizational morphology of an L-valine-containing polyacetylene by pH change

Li BS, Cheuk KKL, Salhi F, Lam JWY, Cha JAK, Xiao XD, Bai CL, Tang BZ
NANO LETTERS 1 (6): 323-328 JUN 2001

Self-assembled Co-3(BO₃)₂/surfactant nanostructured multilayers

Zhang XX, Gu G, Huang HJ, Yang SH, Du YW
JOURNAL OF PHYSICS-CONDENSED MATTER 13 (18): 3913-3921 MAY 7 2001

Mono-sized and single-walled 4 angstrom carbon nanotubes

Wang N, Li GD, Tang ZK
CHEMICAL PHYSICS LETTERS 339 (1-2): 47-52 MAY 4 2001