# Xiaoshuang Chen

## List of Publications by Year in Descending Order



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|---|---|---|---|
| 197 papers | 6,828 citations | 41 h-index | 79 g-index |
| 222 ext. papers | 8,303 ext. citations | 6.4 avg, IF | 5.95 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 197 | Heteroepitaxial growth and interface band alignment in a large-mismatch CsPbI3/GaN heterojunction. *Journal of Materials Chemistry C*, **2022**, 10, 1984-1990 | 7.1 | 1 |
| 196 | Recent Progress in Improving the Performance of Infrared Photodetectors via Optical Field Manipulations.. *Sensors*, **2022**, 22, | 3.8 | 4 |
| 195 | Hybrid Dirac semimetal-based photodetector with efficient low-energy photon harvesting.. *Light: Science and Applications*, **2022**, 11, 53 | 16.7 | 10 |
| 194 | Photonic slide rule with metasurfaces.. *Light: Science and Applications*, **2022**, 11, 77 | 16.7 | 0 |
| 193 | Polarization-Induced Band-Alignment Transition and Nonvolatile p-n Junctions in 2D Van der Waals Heterostructures. *Advanced Electronic Materials*, **2022**, 8, 2101022 | 6.4 | 0 |
| 192 | Collapse Breakdown in Mid-wavelength Infrared HgCdTe Avalanche Photodetector. *IEEE Journal of Selected Topics in Quantum Electronics*, **2022**, 1-1 | 3.8 | 1 |
| 191 | Nonmonotonic wavelength dependence of the polarization-sensitive infrared photoresponse of an anisotropic semimetal.. *Nanoscale*, **2022**, 14, 7314-7321 | 7.7 | |
| 190 | Intrinsic Polarization-Induced Enhanced Ferromagnetism and Self-Doped p-n Junctions in CrBr/GaN van der Waals Heterostructures. *ACS Applied Materials & Interfaces*, **2021**, 13, 8764-8773 | 9.5 | 4 |
| 189 | Ultrasensitive and Self-Powered Terahertz Detection Driven by Nodal-Line Dirac Fermions and Van der Waals Architecture. *Advanced Science*, **2021**, 8, e2102088 | 13.6 | 5 |
| 188 | Direct observation and manipulation of hot electrons at room temperature. *National Science Review*, **2021**, 8, nwaa295 | 10.8 | 9 |
| 187 | Stoichiometric effect on electrical and near-infrared photodetection properties of full-composition-range GaAs1−xSbx nanowires. *Nano Research*, **2021**, 14, 3961 | 10 | 5 |
| 186 | High-frequency rectifiers based on type-II Dirac fermions. *Nature Communications*, **2021**, 12, 1584 | 17.4 | 12 |
| 185 | Blackbody-sensitive room-temperature infrared photodetectors based on low-dimensional tellurium grown by chemical vapor deposition. *Science Advances*, **2021**, 7, | 14.3 | 34 |
| 184 | Recent Progress on Electrical and Optical Manipulations of Perovskite Photodetectors. *Advanced Science*, **2021**, 8, e2100569 | 13.6 | 37 |
| 183 | Controllable growth of type-II Dirac semimetal PtTe2 atomic layer on Au substrate for sensitive room temperature terahertz photodetection. *Informa□□Materi□y*, **2021**, 3, 705-715 | 23.1 | 17 |
| 182 | Unipolar barrier photodetectors based on van der Waals heterostructures. *Nature Electronics*, **2021**, 4, 357-363 | 28.4 | 87 |
| 181 | Broadband Achromatic Metalens in Mid-Wavelength Infrared. *Laser and Photonics Reviews*, **2021**, 15, 2100020 | 8.3 | 22 |

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| 180 | Mechanism of dark current dependence on reverse voltage in mid-wavelength infrared HgCdTe mesa PIN avalanche diode. *Optical and Quantum Electronics*, **2021**, 53, 1 | 2.4 | 4 |
| 179 | Recent progress and challenges based on two-dimensional material photodetectors. *Nano Express*, **2021**, 2, 012001 | 2 | 14 |
| 178 | Hierarchical computational screening of layered lead-free metal halide perovskites for optoelectronic applications. *Journal of Materials Chemistry A*, **2021**, 9, 6476-6486 | 13 | 3 |
| 177 | Uniformly Broadband Far-Infrared Response From the Photocarrier Tunneling of Mesa Si:P Blocked-Impurity-Band Detector. *IEEE Transactions on Electron Devices*, **2021**, 68, 560-564 | 2.9 | 6 |
| 176 | Colossal Terahertz Photoresponse at Room Temperature: A Signature of Type-II Dirac Fermiology. *ACS Nano*, **2021**, 15, 5138-5146 | 16.7 | 6 |
| 175 | Carbon Nanotube Far Infrared Detectors with High Responsivity and Superior Polarization Selectivity Based on Engineered Optical Antennas. *Sensors*, **2021**, 21, | 3.8 | 2 |
| 174 | Design of Power Splitters Based on Hybrid Plasmonic Waveguides. *Applied Sciences (Switzerland)*, **2021**, 11, 8644 | 2.6 | 1 |
| 173 | Controllable Doping in 2D Layered Materials. *Advanced Materials*, **2021**, 33, e2104942 | 24 | 20 |
| 172 | High-performance HgCdTe avalanche photodetector enabled with suppression of band-to-band tunneling effect in mid-wavelength infrared. *Npj Quantum Materials*, **2021**, 6, | 5 | 4 |
| 171 | Terahertz Photon Detection: Sensitive Terahertz Detection and Imaging Driven by the Photothermoelectric Effect in Ultrashort-Channel Black Phosphorus Devices (Adv. Sci. 5/2020). *Advanced Science*, **2020**, 7, 2070029 | 13.6 | 78 |
| 170 | Circular Polarization Discrimination Enhanced by Anisotropic Media. *Advanced Optical Materials*, **2020**, 8, 1901800 | 8.1 | 7 |
| 169 | Defect Passivation and Photoluminescence Enhancement of Monolayer MoS Crystals through Sodium Halide-Assisted Chemical Vapor Deposition Growth. *ACS Applied Materials & Interfaces*, **2020**, 12, 9563-9571 | 9.5 | 26 |
| 168 | Enhanced Performance of HgCdTe Long-Wavelength Infrared Photodetectors With nBn Design. *IEEE Transactions on Electron Devices*, **2020**, 67, 2001-2007 | 2.9 | 8 |
| 167 | Effect of vacuum annealing on solar light response and photocatalytic performance of Ag nanoparticle-modified ZnO thin films. *Applied Physics A: Materials Science and Processing*, **2020**, 126, 1 | 2.6 | 4 |
| 166 | Interface and polarization effects induced Schottky-barrier-free contacts in two-dimensional MXene/GaN heterojunctions. *Journal of Materials Chemistry C*, **2020**, 8, 7350-7357 | 7.1 | 14 |
| 165 | HgCdTe mid-Infrared photo response enhanced by monolithically integrated meta-lenses. *Scientific Reports*, **2020**, 10, 6372 | 4.9 | 16 |
| 164 | Electron-injection driven phase transition in two-dimensional transition metal dichalcogenides. *Journal of Materials Chemistry C*, **2020**, 8, 4432-4440 | 7.1 | 10 |
| 163 | Enhanced Performance of HgCdTe Midwavelength Infrared Electron Avalanche Photodetectors With Guard Ring Designs. *IEEE Transactions on Electron Devices*, **2020**, 67, 542-546 | 2.9 | 13 |

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|---|---|---|---|
| 162 | Sulfur-Driven Transition from Vertical to Lateral Growth of 2D SnS–SnS2 Heterostructures and Their Band Alignments. *Journal of Physical Chemistry C*, **2020**, 124, 27820-27828 | 3.8 | 3 |
| 161 | Theoretical Investigation on Microcavity Coupler for Terahertz Quantum-Well Infrared Photodetectors. *IEEE Access*, **2020**, 8, 176149-176157 | 3.5 | 0 |
| 160 | Anisotropic ultrasensitive PdTe-based phototransistor for room-temperature long-wavelength detection. *Science Advances*, **2020**, 6, | 14.3 | 39 |
| 159 | Mid-infrared polarization-controlled broadband achromatic metadevice. *Science Advances*, **2020**, 6, | 14.3 | 32 |
| 158 | Enhanced polarization sensitivity by plasmonic-cavity in graphene phototransistors. *Journal of Applied Physics*, **2019**, 126, 074301 | 2.5 | 6 |
| 157 | AsP/InSe Van der Waals Tunneling Heterojunctions with Ultrahigh Reverse Rectification Ratio and High Photosensitivity. *Advanced Functional Materials*, **2019**, 29, 1900314 | 15.6 | 76 |
| 156 | Thickness-Dependent Phase Stability and Electronic Properties of GaN Nanosheets and MoS2/GaN van der Waals Heterostructures. *Journal of Physical Chemistry C*, **2019**, 123, 3861-3867 | 3.8 | 23 |
| 155 | SbSI whisker/PbI2 flake mixed-dimensional van der Waals heterostructure for photodetection. *CrystEngComm*, **2019**, 21, 3779-3787 | 3.3 | 14 |
| 154 | The Novel of Type Transition in the ZnSe/Ge Heterojunction Nanowire: First Principles Study. *Journal of Nanoscience and Nanotechnology*, **2019**, 19, 5847-5853 | 1.3 | |
| 153 | Gate-tunable ReS2/MoTe2 heterojunction with high-performance photodetection. *Optical and Quantum Electronics*, **2019**, 51, 1 | 2.4 | 7 |
| 152 | Realization of Both High Absorption of Active Materials and Low Ohmic Loss in Plasmonic Cavities. *Advanced Optical Materials*, **2019**, 7, 1801627 | 8.1 | 13 |
| 151 | High-responsivity and polarization-discriminating terahertz photodetector based on plasmonic resonance. *Applied Physics Letters*, **2019**, 114, 091105 | 3.4 | 11 |
| 150 | Low-Dimensional Nanomaterials for Thermoelectric Detection of Infrared and Terahertz Photons **2019**, 267-316 | | |
| 149 | Surface morphology, electrochemical and electrical performances of ZnO thin films sensitized with Ag nanoparticles by UV irradiation. *Journal of Materials Science: Materials in Electronics*, **2019**, 30, 9798-9805 | 2.1 | 5 |
| 148 | Cut-off wavelength manipulation of pixel-level plasmonic microcavity for long wavelength infrared detection. *Applied Physics Letters*, **2019**, 114, 061104 | 3.4 | 3 |
| 147 | Negative Refraction Based On Supermode Theory in Metal Waveguide Arrays. *Plasmonics*, **2019**, 14, 441-445 | 2.4 | 1 |
| 146 | High efficiency and fast van der Waals hetero-photodiodes with a unilateral depletion region. *Nature Communications*, **2019**, 10, 4663 | 17.4 | 127 |
| 145 | Distinctive Performance of Terahertz Photodetection Driven by Charge-Density-Wave Order in CVD-Grown Tantalum Diselenide. *Advanced Functional Materials*, **2019**, 29, 1905057 | 15.6 | 8 |

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| 144 | Electrochemical Lithiation Mechanism of Two-Dimensional Transition-Metal Dichalcogenide Anode Materials: Intercalation versus Conversion Reactions. *Journal of Physical Chemistry C*, **2019**, 123, 2139-2146 | 3.8 | 27 |
| 143 | Palladium Diselenide Long-Wavelength Infrared Photodetector with High Sensitivity and Stability. *ACS Nano*, **2019**, 13, 2511-2519 | 16.7 | 144 |
| 142 | PtTe -Based Type-II Dirac Semimetal and Its van der Waals Heterostructure for Sensitive Room Temperature Terahertz Photodetection. *Small*, **2019**, 15, e1903362 | 11 | 55 |
| 141 | Large-area, lithography-free, narrow-band and highly directional thermal emitter. *Nanoscale*, **2019**, 11, 19742-19750 | 7.7 | 21 |
| 140 | Broadband Spin-Driven Anomalous Surface Plasmon Polariton Steering via V-Shaped Aperture Metasurfaces. *Advanced Theory and Simulations*, **2019**, 2, 1800167 | 3.5 | 18 |
| 139 | Towards sensitive terahertz detection via thermoelectric manipulation using graphene transistors. *NPG Asia Materials*, **2018**, 10, 318-327 | 10.3 | 16 |
| 138 | Sub-Wavelength Grating Enhanced Ultra-Narrow Graphene Perfect Absorber. *Plasmonics*, **2018**, 13, 2267-2272 | 2.4 | 14 |
| 137 | Unveiling the Growth Mechanism of MoS2 with Chemical Vapor Deposition: From Two-Dimensional Planar Nucleation to Self-Seeding Nucleation. *Crystal Growth and Design*, **2018**, 18, 1012-1019 | 3.5 | 63 |
| 136 | Ferroelectric Localized Field-Enhanced ZnO Nanosheet Ultraviolet Photodetector with High Sensitivity and Low Dark Current. *Small*, **2018**, 14, e1800492 | 11 | 65 |
| 135 | Significant Enhancement of Single-Walled Carbon Nanotube Based Infrared Photodetector Using PbS Quantum Dots. *IEEE Journal of Selected Topics in Quantum Electronics*, **2018**, 24, 1-8 | 3.8 | 16 |
| 134 | Top-gated black phosphorus phototransistor for sensitive broadband detection. *Nanoscale*, **2018**, 10, 5852-5858 | 7.7 | 14 |
| 133 | Influencing Sources for Dark Current Transport and Avalanche Mechanisms in Planar and Mesa HgCdTe p-i-n Electron-Avalanche Photodiodes. *IEEE Transactions on Electron Devices*, **2018**, 65, 572-576 | 2.9 | 28 |
| 132 | Dark Mode Driven Extra-narrow and Multiband Absorber. *Plasmonics*, **2018**, 13, 729-735 | 2.4 | 8 |
| 131 | Room-Temperature Single-Photon Detector Based on Single Nanowire. *Nano Letters*, **2018**, 18, 5439-5445 | 11.5 | 34 |
| 130 | Photodetectors: Ultrasensitive Room-Temperature Terahertz Direct Detection Based on a Bismuth Selenide Topological Insulator (Adv. Funct. Mater. 31/2018). *Advanced Functional Materials*, **2018**, 28, 1870219 | 15.6 | 3 |
| 129 | Potential solution-induced HfAlO dielectrics and their applications in low-voltage-operating transistors and high-gain inverters.. *RSC Advances*, **2018**, 8, 36584-36595 | 3.7 | 8 |
| 128 | Room-Temperature High-Gain Long-Wavelength Photodetector via Optical–Electrical Controlling of Hot Carriers in Graphene. *Advanced Optical Materials*, **2018**, 6, 1800836 | 8.1 | 15 |
| 127 | Selected-Area Chemical Nanoengineering of Vanadium Dioxide Nanostructures Through Nonlithographic Direct Writing. *Advanced Materials Interfaces*, **2018**, 5, 1800974 | 4.6 | 7 |

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| 126 | Ultrasensitive Room-Temperature Terahertz Direct Detection Based on a Bismuth Selenide Topological Insulator. *Advanced Functional Materials*, **2018**, 28, 1801786 | 15.6 | 48 |
| 125 | Tailoring Active Far-Infrared Resonator with Graphene Metasurface and Its Complementary. *Plasmonics*, **2017**, 12, 353-360 | 2.4 | 4 |
| 124 | Toward Sensitive Room-Temperature Broadband Detection from Infrared to Terahertz with Antenna-Integrated Black Phosphorus Photoconductor. *Advanced Functional Materials*, **2017**, 27, 1604414 | 15.6 | 68 |
| 123 | Arrayed Van Der Waals Broadband Detectors for Dual-Band Detection. *Advanced Materials*, **2017**, 29, 1604439 | 24 | 161 |
| 122 | Recent Progress on Localized Field Enhanced Two-dimensional Material Photodetectors from Ultraviolet-Visible to Infrared. *Small*, **2017**, 13, 1700894 | 11 | 181 |
| 121 | A visible high efficiency and polarization-insensitive 34-level dielectric metasurface hologram. *RSC Advances*, **2017**, 7, 26371-26376 | 3.7 | 4 |
| 120 | Effect of ZnS layers on optical properties of prepared CdS/TiO2 nanotube arrays for photocatalyst. *Journal of Nanoparticle Research*, **2017**, 19, 1 | 2.3 | 6 |
| 119 | Reflective metalens with sub-diffraction-limited and multifunctional focusing. *Scientific Reports*, **2017**, 7, 12632 | 4.9 | 15 |
| 118 | MoS2 nanosheet photodetectors with ultrafast response. *Applied Physics Letters*, **2017**, 111, 153502 | 3.4 | 34 |
| 117 | Interface effect on electronic and optical properties of antimonene/GaAs van der Waals heterostructures. *Journal of Materials Chemistry C*, **2017**, 5, 9687-9693 | 7.1 | 24 |
| 116 | Facile Hydrothermal Synthesis of SnO2 Nanoparticles with Enhanced Lithium Storage Performance. *Chemistry Letters*, **2017**, 46, 1639-1642 | 1.7 | 2 |
| 115 | Hybrid WSe-InO Phototransistor with Ultrahigh Detectivity by Efficient Suppression of Dark Currents. *ACS Applied Materials & Interfaces*, **2017**, 9, 34489-34496 | 9.5 | 37 |
| 114 | Tunable and high-sensitivity sensing based on Fano resonance with coupled plasmonic cavities. *Scientific Reports*, **2017**, 7, 10639 | 4.9 | 53 |
| 113 | Electrical and optical properties of a kind of ferroelectric oxide films comprising of PbZr0.4Ti0.6O3 stacks. *Journal of Applied Physics*, **2017**, 122, 024102 | 2.5 | 1 |
| 112 | First-principles calculations of GaN:Gd nanowires: Carbon-dopants-induced room-temperature ferromagnetism. *AIP Advances*, **2017**, 7, 115003 | 1.5 | 3 |
| 111 | Defect Engineering in MoSe for the Hydrogen Evolution Reaction: From Point Defects to Edges. *ACS Applied Materials & Interfaces*, **2017**, 9, 42688-42698 | 9.5 | 115 |
| 110 | Optical properties and UV photoresponse of Na2x Zn1⊠ O thin film. *Journal of Materials Science: Materials in Electronics*, **2017**, 28, 1022-1027 | 2.1 | |
| 109 | Enhanced photoelectrochemical properties of nanocrystalline TiO electrode by surface sensitization with CuO quantum dots. *Scientific Reports*, **2017**, 7, 5291 | 4.9 | 11 |

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| 108 | Hydroxide MgSn(OH)6: A promising new photocatalyst for methyl orange degradation. *Electronic Materials Letters*, **2017**, 13, 339-343 | 2.9 | 1 |
| 107 | Room temperature high-detectivity mid-infrared photodetectors based on black arsenic phosphorus. *Science Advances*, **2017**, 3, e1700589 | 14.3 | 269 |
| 106 | Effect of solution concentration on surface morphology, optical properties and solar light response of ZnO thin films. *Journal of Materials Science: Materials in Electronics*, **2017**, 28, 2731-2738 | 2.1 | 3 |
| 105 | Enhanced visible light response of ZnO porous thin film by post-annealing treatment. *Journal of Materials Science: Materials in Electronics*, **2017**, 28, 4051-4057 | 2.1 | 6 |
| 104 | Visible to near-infrared photodetectors based on MoS2 vertical Schottky junctions. *Nanotechnology* , **2017**, | 3.4 | 51 |
| 103 | High-Performance Ferroelectric Polymer Side-Gated CdS Nanowire Ultraviolet Photodetectors. *Advanced Functional Materials*, **2016**, 26, 7690-7696 | 15.6 | 87 |
| 102 | The Supermodes Excitations of Surface Plasmon Polaritons in Metal Waveguide Arrays. *Journal of Nanoscience and Nanotechnology*, **2016**, 16, 8101-8105 | 1.3 | 1 |
| 101 | Chemical potential effects on polytypism in Au-catalyzed GaAs nanowire molecular beam epitaxy growth: A first-principles study. *Chemical Physics Letters*, **2016**, 644, 147-151 | 2.5 | 2 |
| 100 | Dynamic metamaterial based on the graphene split ring high-Q Fano-resonnator for sensing applications. *Nanoscale*, **2016**, 8, 15196-204 | 7.7 | 85 |
| 99 | Broadband circular polarizers constructed using helix-like chiral metamaterials. *Nanoscale*, **2016**, 8, 14725-9 | 7.7 | 38 |
| 98 | The respective effects of direct and indirect couplings on the plasmon-induced transparency in waveguide systems. *Optics Communications*, **2016**, 364, 83-87 | 2 | 5 |
| 97 | When Nanowires Meet Ultrahigh Ferroelectric Field-High-Performance Full-Depleted Nanowire Photodetectors. *Nano Letters*, **2016**, 16, 2548-55 | 11.5 | 103 |
| 96 | Effects of growth substrate on the morphologies of TiO2 hierarchical nanoarrays and their optical and photocatalytic properties. *Journal of Materials Science: Materials in Electronics*, **2016**, 27, 2103-2107 | 2.1 | 10 |
| 95 | Plasmon Resonances in a Periodic Square Coaxial Hole Array in a Graphene Sheet. *Plasmonics*, **2016**, 11, 1129-1137 | 2.4 | 3 |
| 94 | The capacity fading mechanism and improvement of cycling stability in MoS2-based anode materials for lithium-ion batteries. *Nanoscale*, **2016**, 8, 2918-26 | 7.7 | 132 |
| 93 | High-Sensitivity Floating-Gate Phototransistors Based on WS2 and MoS2. *Advanced Functional Materials*, **2016**, 26, 6084-6090 | 15.6 | 103 |
| 92 | A facile method to fabricate superhydrophobic ZnO nanostructure with petal effect. *Journal of Materials Science: Materials in Electronics*, **2016**, 27, 11524-11529 | 2.1 | 1 |
| 91 | Bulk photovoltaic effect at infrared wavelength in strained Bi2Te3 films. *APL Materials*, **2016**, 4, 126104 | 5.7 | 5 |

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|---|---|---|---|
| 90 | A novel transmission model for plasmon-induced transparency in plasmonic waveguide system with a single resonator. *RSC Advances*, **2016**, 6, 51480-51484 | 3.7 | 9 |
| 89 | Enhanced photocatalytic performances of ZnO with Na doping and graphene oxide quantum dots. *Journal of Materials Science: Materials in Electronics*, **2016**, 27, 9131-9135 | 2.1 | 6 |
| 88 | Visible Light-Assisted High-Performance Mid-Infrared Photodetectors Based on Single InAs Nanowire. *Nano Letters*, **2016**, 16, 6416-6424 | 11.5 | 90 |
| 87 | Ferroelectric polymer tuned two dimensional layered MoTe2 photodetector. *RSC Advances*, **2016**, 6, 87416-87421 | 3.7 | 34 |
| 86 | Unveiling the atomic structure and electronic properties of atomically thin boron sheets on an Ag(111) surface. *Nanoscale*, **2016**, 8, 16284-16291 | 7.7 | 50 |
| 85 | Photodetectors: High-Responsivity Graphene/InAs Nanowire Heterojunction Near-Infrared Photodetectors with Distinct Photocurrent On/Off Ratios (Small 8/2015). *Small*, **2015**, 11, 890-890 | 11 | 2 |
| 84 | The calculation about the positions of self-imaging in a limited number of metal waveguide arrays. *Optical and Quantum Electronics*, **2015**, 47, 2391-2398 | 2.4 | 1 |
| 83 | The inelastic electron tunneling spectroscopy of curved finite-sized graphene nanoribbon based molecular devices. *RSC Advances*, **2015**, 5, 53313-53319 | 3.7 | |
| 82 | Silane-catalysed fast growth of large single-crystalline graphene on hexagonal boron nitride. *Nature Communications*, **2015**, 6, 6499 | 17.4 | 141 |
| 81 | Subwavelength focusing by a sheltered metallic waveguide array. *Optics Communications*, **2015**, 349, 151-155 | 2 | 1 |
| 80 | Prediction of half-semiconductor antiferromagnets with vanishing net magnetization. *RSC Advances*, **2015**, 5, 46640-46647 | 3.7 | 17 |
| 79 | Quantum dot single-photon switches of resonant tunneling current for discriminating-photon-number detection. *Scientific Reports*, **2015**, 5, 9389 | 4.9 | 15 |
| 78 | Layer-dependent dopant stability and magnetic exchange coupling of iron-doped MoS2 nanosheets. *ACS Applied Materials & Interfaces*, **2015**, 7, 7534-41 | 9.5 | 74 |
| 77 | Ferromagnetic Resonance Line Shapes in Permalloy Strips at Low Magnetic Fields. *IEEE Magnetics Letters*, **2015**, 6, 1-4 | 1.6 | |
| 76 | Atomic Mechanism of Electrocatalytically Active Co-N Complexes in Graphene Basal Plane for Oxygen Reduction Reaction. *ACS Applied Materials & Interfaces*, **2015**, 7, 27405-13 | 9.5 | 111 |
| 75 | Surface morphology, composition and wettability Cu2O/CuO composite thin films prepared by a facile hydrothermal method. *Applied Physics A: Materials Science and Processing*, **2015**, 118, 901-906 | 2.6 | 15 |
| 74 | Au Nanoarrays: Surface Plasmon-Enhanced Photodetection in Few Layer MoS2 Phototransistors with Au Nanostructure Arrays (Small 20/2015). *Small*, **2015**, 11, 2346-2346 | 11 | 3 |
| 73 | Photodetectors: Ultrasensitive and Broadband MoS2 Photodetector Driven by Ferroelectrics (Adv. Mater. 42/2015). *Advanced Materials*, **2015**, 27, 6538-6538 | 24 | 5 |

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|---|---|---|---|
| 72 | Ultrasensitive and Broadband MoS Photodetector Driven by Ferroelectrics. *Advanced Materials*, **2015**, 27, 6575-81 | 24 | 559 |
| 71 | High performance colored selective absorbers for architecturally integrated solar applications. *Journal of Materials Chemistry A*, **2015**, 3, 7353-7360 | 13 | 33 |
| 70 | Plasmon Resonances in a Stacked Pair of Periodic Graphene Hole Arrays. *Plasmonics*, **2015**, 10, 1695-1702 | 2.4 | |
| 69 | Crystal Phase and Facet Effects on the Structural Stability and Electronic Properties of GaP Nanowires. *Journal of Physical Chemistry C*, **2015**, 119, 12030-12036 | 3.8 | 8 |
| 68 | Role of Chemical Potential in Flake Shape and Edge Properties of Monolayer MoS2. *Journal of Physical Chemistry C*, **2015**, 119, 4294-4301 | 3.8 | 141 |
| 67 | Subwavelength diffraction in a limited number of metal waveguide arrays. *Journal of Modern Optics* , **2015**, 62, 321-326 | 1.1 | |
| 66 | Penta-graphene: A new carbon allotrope. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 2372-7 | 11.5 | 763 |
| 65 | Surface Plasmon-Enhanced Photodetection in Few Layer MoS2 Phototransistors with Au Nanostructure Arrays. *Small*, **2015**, 11, 2392-8 | 11 | 292 |
| 64 | In situ atom scale visualization of domain wall dynamics in VO2 insulator-metal phase transition. *Scientific Reports*, **2014**, 4, 6544 | 4.9 | 25 |
| 63 | Highly sensitive and wide-band tunable terahertz response of plasma waves based on graphene field effect transistors. *Scientific Reports*, **2014**, 4, 5470 | 4.9 | 45 |
| 62 | Performance Optimization of InSb Infrared Focal-Plane Arrays with Diffractive Microlenses. *Journal of Electronic Materials*, **2014**, 43, 2795-2801 | 1.9 | 24 |
| 61 | Effect of solution concentration on surface morphology and photocatalytic activity of ZnO thin films synthesized by hydrothermal methods. *Journal of Materials Science: Materials in Electronics*, **2014**, 25, 882-887 | 2.1 | 9 |
| 60 | Microwave-Induced DC Response of Spin Wave Resonance Driven by an Anisotropic Built-In Field in a Permalloy Thin Strip. *IEEE Transactions on Magnetics*, **2014**, 50, 1-4 | 2 | |
| 59 | Study of gain and photoresponse characteristics for back-illuminated separate absorption and multiplication GaN avalanche photodiodes. *Journal of Applied Physics*, **2014**, 115, 013103 | 2.5 | 44 |
| 58 | Anomalous and highly efficient InAs nanowire phototransistors based on majority carrier transport at room temperature. *Advanced Materials*, **2014**, 26, 8203-9 | 24 | 133 |
| 57 | Effect of edge modification on transport properties of finite-sized, graphene nanoribbon-based molecular devices. *RSC Advances*, **2014**, 4, 52366-52371 | 3.7 | 1 |
| 56 | Interface control and modification of band alignment and electrical properties of HfTiO/GaAs gate stacks by nitrogen incorporation. *Journal of Materials Chemistry C*, **2014**, 2, 5299-5308 | 7.1 | 117 |
| 55 | Enhanced photocatalytic activity of Mg0.05Zn0.95O thin films prepared by sol gel method through a cycle. *Journal of Materials Science: Materials in Electronics*, **2014**, 25, 2053-2059 | 2.1 | 3 |

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|---|---|---|---|
| 54 | Structural and Energetic Analysis of Group V Impurities in p-Type HgCdTe: The Case of As and Sb. *Journal of Electronic Materials*, **2014**, 43, 2849-2853 | 1.9 | 1 |
| 53 | Spin Switch of the Transition-Metal-Doped Boron Nitride Sheet through H/F Chemical Decoration. *Journal of Physical Chemistry C*, **2014**, 118, 8899-8906 | 3.8 | 26 |
| 52 | Effect of ethylene glycol monomethyl ether ratio in mixed solvent on surface morphology, wettability and photocatalytic properties of ZnO thin films. *Journal of Materials Science: Materials in Electronics*, **2014**, 25, 2948-2956 | 2.1 | 10 |
| 51 | High-polarization-discriminating infrared detection using a single quantum well sandwiched in plasmonic micro-cavity. *Scientific Reports*, **2014**, 4, 6332 | 4.9 | 65 |
| 50 | Second-order nonlinearity in triangular lattice perforated gold film due to surface plasmas resonance. *Scientific World Journal, The*, **2014**, 2014, 284929 | 2.2 | |
| 49 | Effect of solution concentration on surface morphology, chemical composition and photoresponse of CuO/Cu2O composite thin films grown by hydrothermal synthesis. *Journal of Materials Science: Materials in Electronics*, **2014**, 25, 4877-4882 | 2.1 | 4 |
| 48 | Nanowires: Anomalous and Highly Efficient InAs Nanowire Phototransistors Based on Majority Carrier Transport at Room Temperature (Adv. Mater. 48/2014). *Advanced Materials*, **2014**, 26, 8232-8232 | 24 | 8 |
| 47 | ZnSe-Based Longitudinal Twinning Nanowires. *Advanced Engineering Materials*, **2014**, 16, 459-465 | 3.5 | 10 |
| 46 | Influence of water content in mixed solvent on surface morphology, wettability, and photoconductivity of ZnO thin films. *Nanoscale Research Letters*, **2014**, 9, 485 | 5 | 10 |
| 45 | First principles study of half Heusler alloys PdFeBi and PdCoBi **2014**, | | 1 |
| 44 | The enhanced infrared absorption of quantum well infrared photodetector based on a hybrid structure of periodic gold stripes overlaid with a gold film. *Optics Communications*, **2014**, 328, 91-95 | 2 | 3 |
| 43 | Simulation of superconducting single photon detector coupled with metal□nsulator□metal concentric ring grating. *Optical and Quantum Electronics*, **2014**, 46, 1253-1259 | 2.4 | 3 |
| 42 | Influence of solution concentrations on surface morphology and wettability of ZnO thin films. *Electronic Materials Letters*, **2013**, 9, 171-176 | 2.9 | 3 |
| 41 | CVD-derived Hf-based High-k Gate Dielectrics. *Critical Reviews in Solid State and Materials Sciences*, **2013**, 38, 235-261 | 10.1 | 23 |
| 40 | Interaction Between AsHg and V Hg in Arsenic-Doped Hg1□ Cd x Te. *Journal of Electronic Materials* , **2013**, 42, 3054-3058 | 1.9 | 1 |
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