

Laipan Zhu

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

2,648
citations

201575

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182361

51
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55
all docs

55
docs citations

55
times ranked

2569
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Triboelectric Leakage-Field-Induced Electroluminescence Based on ZnS:Cu. ACS Applied Materials & Interfaces, 2022, 14, 4775-4782. | 4.0 | 15 |
| 2 | Contact-electro-catalysis for the degradation of organic pollutants using pristine dielectric powders. Nature Communications, 2022, 13, 130. | 5.8 | 83 |
| 3 | Tribovoltaic Nanogenerators Based on MXene/Silicon Heterojunctions for Highly Stable Self-Powered Speed, Displacement, Tension, Oscillation Angle, and Vibration Sensors. Advanced Functional Materials, 2022, 32, . | 7.8 | 32 |
| 4 | Evaluation of DLC, MoS ₂ , and Ti ₃ C ₂ T thin films for triboelectric nanogenerators. Nano Energy, 2022, 97, 107185. | 8.2 | 20 |
| 5 | Ultra-Stable and Durable Piezoelectric Nanogenerator with All-Weather Service Capability Based on NADoped 4H-SiC Nanohole Arrays. Nano-Micro Letters, 2022, 14, 30. | 14.4 | 57 |
| 6 | Effects of Temperature on the Tribovoltaic Effect at Liquid/Solid Interfaces. Advanced Materials Interfaces, 2022, 9, . | 1.9 | 24 |
| 7 | Highly Sensitive Photoelectric Detection and Imaging Enhanced by the Pyro-Phototronic Effect Based on a Photoinduced Dynamic Schottky Effect in 4H-SiC. Advanced Materials, 2022, 34, . | 11.1 | 21 |
| 8 | Polarization-Sensitive Light Sensors Based on a Bulk Perovskite MAPbBr ₃ Single Crystal. Materials, 2021, 14, 1238. | 1.3 | 3 |
| 9 | Flexible and wearable piezoelectric nanogenerators based on P(VDF-TrFE)/SnS nanocomposite micropillar array. Journal of Applied Physics, 2021, 129, . | 1.1 | 14 |
| 10 | Piezoelectric Nanogenerator Based on In Situ Growth All-Inorganic CsPbBr ₃ Perovskite Nanocrystals in PVDF Fibers with Long-Term Stability. Advanced Functional Materials, 2021, 31, 2011073. | 7.8 | 95 |
| 11 | Flexible Piezoelectric Nanogenerators Based on P(VDF-TrFE)/CsPbBr ₃ Quantum Dot Composite Films. ACS Applied Electronic Materials, 2021, 3, 2136-2144. | 2.0 | 33 |
| 12 | Piezoelectric nanogenerators with high performance against harsh conditions based on tunable N doped 4H-SiC nanowire arrays. Nano Energy, 2021, 83, 105826. | 8.2 | 56 |
| 13 | Enhanced Flexible Poly(vinylidene fluoride-trifluoroethylene) Piezoelectric Nanogenerators by SnSe Nanosheet Doping and Solvent Treatment. ACS Applied Materials & Interfaces, 2021, 13, 32278-32285. | 4.0 | 16 |
| 14 | A Flexible Multifunctional Triboelectric Nanogenerator Based on MXene/PVA Hydrogel. Advanced Functional Materials, 2021, 31, 2104928. | 7.8 | 259 |
| 15 | Progress in Piezoelectric Nanogenerators Based on PVDF Composite Films. Micromachines, 2021, 12, 1278. | 1.4 | 24 |
| 16 | Self-Powered High-Responsivity Photodetectors Enhanced by the Pyro-Phototronic Effect Based on a BaTiO ₃ /GaN Heterojunction. Nano Letters, 2021, 21, 8808-8816. | 4.5 | 51 |
| 17 | Enhanced Spin-Orbit Coupled Photoluminescence of Perovskite CsPbBr ₃ Quantum Dots by Piezo-Phototronic Effect. Nano Letters, 2020, 20, 8298-8304. | 4.5 | 19 |
| 18 | Flexible Piezoelectric Nanogenerators Based on P(VDF-TrFE)/GeSe Nanocomposite Films. ACS Applied Electronic Materials, 2020, 2, 2369-2374. | 2.0 | 25 |

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 19 | Piezotronic effect on Rashba spin-orbit coupling based on MAPbI ₃ /ZnO heterostructures. Applied Physics Letters, 2020, 117, 071601. | 1.5 | 7 |
| 20 | Flexoelectronics of centrosymmetric semiconductors. Nature Nanotechnology, 2020, 15, 661-667. | 15.6 | 175 |
| 21 | Piezo-phototronic effect enhanced polarization-sensitive photodetectors based on cation-mixed organic-inorganic perovskite nanowires. Materials Today, 2020, 37, 56-63. | 8.3 | 28 |
| 22 | Scanning Probing of the Tribovoltaic Effect at the Sliding Interface of Two Semiconductors. Advanced Materials, 2020, 32, e2000928. | 11.1 | 93 |
| 23 | Flexible Difunctional (Pressure and Light) Sensors Based on ZnO Nanowires/Graphene Heterostructures. Advanced Materials Interfaces, 2020, 7, 1901932. | 1.9 | 16 |
| 24 | Comparison of spin photocurrent in devices based on in-plane or out-of-plane magnetized CoFeB spin detectors. Physical Review B, 2019, 100, . | 1.1 | 2 |
| 25 | High-performance triboelectric nanogenerators for self-powered, in-situ and real-time water quality mapping. Nano Energy, 2019, 66, 104117. | 8.2 | 127 |
| 26 | Electron Transfer in Nanoscale Contact Electrification: Photon Excitation Effect. Advanced Materials, 2019, 31, e1901418. | 11.1 | 84 |
| 27 | Progress in piezotronics and piezo-phototronics of quantum materials. Journal Physics D: Applied Physics, 2019, 52, 343001. | 1.3 | 23 |
| 28 | 2D piezotronics in atomically thin zinc oxide sheets: Interfacing gating and channel width gating. Nano Energy, 2019, 60, 724-733. | 8.2 | 60 |
| 29 | Defect repair for enhanced piezo-phototronic MoS ₂ flexible phototransistors. Journal of Materials Chemistry C, 2019, 7, 14731-14738. | 2.7 | 20 |
| 30 | Recent Progress in Piezo-Phototronic Effect Enhanced Solar Cells. Advanced Functional Materials, 2019, 29, 1808214. | 7.8 | 57 |
| 31 | Comprehensive Pyro-Phototronic Effect Enhanced Ultraviolet Detector with ZnO/Ag Schottky Junction. Advanced Functional Materials, 2019, 29, 1807111. | 7.8 | 95 |
| 32 | Observation of Unusual Optical Band Structure of CH ₃ NH ₃ PbI ₃ Perovskite Single Crystal. ACS Photonics, 2018, 5, 1583-1590. | 3.2 | 32 |
| 33 | Piezotronic Effect on Rashba Spin-Orbit Coupling in a ZnO/P3HT Nanowire Array Structure. ACS Nano, 2018, 12, 1811-1820. | 7.3 | 61 |
| 34 | Three-dimensional ultraflexible triboelectric nanogenerator made by 3D printing. Nano Energy, 2018, 45, 380-389. | 8.2 | 178 |
| 35 | Piezo-phototronic and pyro-phototronic effects to enhance Cu(In, Ga)Se ₂ thin film solar cells. Nano Research, 2018, 11, 3877-3885. | 5.8 | 22 |
| 36 | Ultrathin Piezotronic Transistors with 2 nm Channel Lengths. ACS Nano, 2018, 12, 4903-4908. | 7.3 | 63 |

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|----|---|------|-----------|
| 37 | Piezo-phototronic Effect Enhanced Photodetector Based on CH ₃ NH ₃ PbI ₃ Single Crystals. ACS Nano, 2018, 12, 10501-10508. | 7.3 | 67 |
| 38 | Harsh-Environmental-Resistant Triboelectric Nanogenerator and Its Applications in Autodrive Safety Warning. Advanced Energy Materials, 2018, 8, 1801898. | 10.2 | 82 |
| 39 | Piezo-Phototronic Effect for Enhanced Flexible MoS ₂ /WSe ₂ van der Waals Photodiodes. Advanced Functional Materials, 2018, 28, 1802849. | 7.8 | 130 |
| 40 | Tunable WSe ₂ -CdS mixed-dimensional van der Waals heterojunction with a piezo-phototronic effect for an enhanced flexible photodetector. Nanoscale, 2018, 10, 14472-14479. | 2.8 | 53 |
| 41 | Optical bandgap energy of CH ₃ NH ₃ PbI ₃ perovskite studied by photoconductivity and reflectance spectroscopy. Science China Technological Sciences, 2018, 61, 886-892. | 2.0 | 17 |
| 42 | Enhancing the Efficiency of Silicon-Based Solar Cells by the Piezo-Phototronic Effect. ACS Nano, 2017, 11, 1894-1900. | 7.3 | 79 |
| 43 | Ultrasensitive Vertical Piezotronic Transistor Based on ZnO Twin Nanoplatelet. ACS Nano, 2017, 11, 4859-4865. | 7.3 | 45 |
| 44 | Piezo-Phototronic Effect Enhanced Flexible Solar Cells Based on n-ZnO/p-SnS Core-Shell Nanowire Array. Advanced Science, 2017, 4, 1600185. | 5.6 | 110 |
| 45 | Angular Dependence of the Spin Photocurrent in a $\text{CoFeB}/\text{MgO}/\text{GaAs}$ Quantum Well Structure. Physical Review Applied, 2017, 8, . | | |
| 46 | Reflectance difference spectroscopy microscope for circular defects on InN films. Optics Express, 2016, 24, 15059. | 1.7 | 6 |
| 47 | Spin transport in undoped InGaAs/AlGaAs multiple quantum well studied via spin photocurrent excited by circularly polarized light. Nanoscale Research Letters, 2016, 11, 8. | 3.1 | 14 |
| 48 | New method for thickness determination and microscopic imaging of graphene-like two-dimensional materials. Journal of Semiconductors, 2016, 37, 013002. | 2.0 | 3 |
| 49 | Temperature dependence of spin photocurrent spectra induced by Rashba- and Dresselhaus-type circular photogalvanic effect at inter-band excitation in InGaAs/AlGaAs quantum wells. Optics Express, 2015, 23, 27250. | 1.7 | 11 |
| 50 | Observation of interface dependent spin polarized photocurrents in InAs/GaSb superlattice. Applied Physics Letters, 2015, 106, 192402. | 1.5 | 5 |
| 51 | Observation of anomalous linear photogalvanic effect and its dependence on wavelength in undoped InGaAs/AlGaAs multiple quantum well. Nanoscale Research Letters, 2014, 9, 493. | 3.1 | 1 |
| 52 | Spin depolarization under low electric fields at low temperatures in undoped InGaAs/AlGaAs multiple quantum well. Applied Physics Letters, 2014, 105, 152103. | 1.5 | 11 |
| 53 | Observation of linear and quadratic magnetic field-dependence of magneto-photocurrents in InAs/GaSb superlattice. Nanoscale Research Letters, 2014, 9, 279. | 3.1 | 4 |
| 54 | Giant in-plane optical anisotropy of <i>a</i> -plane ZnO on <i>r</i> -plane sapphire. Journal of Semiconductors, 2013, 34, 122003. | 2.0 | 0 |

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|----|--|-----|-----------|
| 55 | Identifying different mechanisms of circular photogalvanic effect in GaAs/Al _{0.3} Ga _{0.7} As two dimensional electron gas by photo-modulation technique. Applied Physics Letters, 2013, 102, . | 1.5 | 8 |