## Li-Zhe Liu

List of Publications by Year in descending order

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| #  | Article  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Half-metallic carbon nitride nanosheets with micro grid mode resonance structure for efficient photocatalytic hydrogen evolution. Nature Communications, 2018, 9, 3366.                                  | 12.8 | 219       |
| 2  | Quantum confinement effects across two-dimensional planes in MoS2 quantum dots. Applied Physics<br>Letters, 2015, 106, .   | 3.3  | 180       |
| 3  | Identification of oxygen vacancy types from Raman spectra of SnO <sub>2</sub> nanocrystals. Journal of Raman Spectroscopy, 2012, 43, 1423-1426.  | 2.5  | 172       |
| 4  | Spin-state reconfiguration induced by alternating magnetic field for efficient oxygen evolution reaction. Nature Communications, 2021, 12, 4827.   | 12.8 | 147       |
| 5  | Photoinduced semiconductor-metal transition in ultrathin troilite FeS nanosheets to trigger efficient hydrogen evolution. Nature Communications, 2019, 10, 399.  | 12.8 | 133       |
| 6  | High-efficiency hydrogen evolution from seawater using hetero-structured T/Td phase ReS2 nanosheets with cationic vacancies. Nano Energy, 2019, 55, 42-48.   | 16.0 | 102       |
| 7  | Electric Strain in Dual Metal Janus Nanosheets Induces Structural Phase Transition for Efficient<br>Hydrogen Evolution. Joule, 2019, 3, 2955-2967.   | 24.0 | 75        |
| 8  | Dual-metal-driven Selective Pathway of Nitrogen Reduction in Orderly Atomic-hybridized<br>Re <sub>2</sub> MnS <sub>6</sub> Ultrathin Nanosheets. Nano Letters, 2020, 20, 4960-4967.                      | 9.1  | 69        |
| 9  | Spin-related symmetry breaking induced by half-disordered hybridization in BixEr2-xRu2O7 pyrochlores for acidic oxygen evolution. Nature Communications, 2022, 13, .                                     | 12.8 | 66        |
| 10 | Optical identification of oxygen vacancy types in SnO2 nanocrystals. Applied Physics Letters, 2013, 102, .   | 3.3  | 65        |
| 11 | Recharged Catalyst with Memristive Nitrogen Reduction Activity through Learning Networks of Spiking Neurons. Journal of the American Chemical Society, 2021, 143, 5378-5385.                             | 13.7 | 56        |
| 12 | Anchoring Black Phosphorus Nanoparticles onto ZnS Porous Nanosheets: Efficient Photocatalyst<br>Design and Charge Carrier Dynamics. ACS Applied Materials & Interfaces, 2020, 12, 8157-8167.             | 8.0  | 53        |
| 13 | Cubic In <sub>2</sub> O <sub>3</sub> Microparticles for Efficient Photoelectrochemical Oxygen<br>Evolution. Journal of Physical Chemistry Letters, 2014, 5, 4298-4304.                                   | 4.6  | 49        |
| 14 | Oxygen-vacancy and depth-dependent violet double-peak photoluminescence from ultrathin cuboid<br>SnO2 nanocrystals. Applied Physics Letters, 2012, 100, 121903.  | 3.3  | 45        |
| 15 | Complementary Metal Oxide Semiconductor-Compatible, High-Mobility, âŸ <sup></sup> 111⟩-Oriented GaSb Nanowires<br>Enabled by Vapor–Solid–Solid Chemical Vapor Deposition. ACS Nano, 2017, 11, 4237-4246. | 14.6 | 38        |
| 16 | Self-Assembly of Porphyrin-Based Metallacages into Octahedra. Journal of the American Chemical<br>Society, 2020, 142, 17903-17907.   | 13.7 | 37        |
| 17 | Nonpolar-Oriented Wurtzite InP Nanowires with Electron Mobility Approaching the Theoretical Limit. ACS Nano, 2018, 12, 10410-10418.  | 14.6 | 30        |
| 18 | Ultrahigh quantum efficiency photodetector and ultrafast reversible surface wettability transition of square In2O3 nanowires. Nano Research, 2017, 10, 2772-2781.  | 10.4 | 27        |

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|----|--|------|-----------|
| 19 | Resonant Raman scattering from CdS nanocrystals enhanced by interstitial Mn. Applied Physics<br>Letters, 2013, 102, .  | 3.3  | 24        |
| 20 | Optical Identification of Topological Defect Types in Monolayer Arsenene by First-Principles<br>Calculation. Journal of Physical Chemistry C, 2016, 120, 24917-24924.  | 3.1  | 24        |
| 21 | Highly Efficient Solarâ€Driven Photothermal Performance in Auâ€Carbon Coreâ€Shell Nanospheres. Solar<br>Rrl, 2017, 1, 1600032.   | 5.8  | 24        |
| 22 | Phase-Engineering-Induced Generation and Control of Highly Anisotropic and Robust Excitons in Few-Layer ReS <sub>2</sub> . Journal of Physical Chemistry Letters, 2017, 8, 2719-2724.                              | 4.6  | 24        |
| 23 | Electronic structure and magnetism in <i>g</i> -C4N3 controlled by strain engineering. Applied Physics<br>Letters, 2015, 106, .  | 3.3  | 23        |
| 24 | Selective and high-sensitive label-free detection of ascorbic acid by carbon nitride quantum dots with intense fluorescence from lone pair states. Talanta, 2019, 196, 530-536.                                    | 5.5  | 23        |
| 25 | Growth of tin oxide nanorods induced by nanocube-oriented coalescence mechanism. Applied Physics<br>Letters, 2011, 98, 133102.   | 3.3  | 21        |
| 26 | Charged excited state induced by ultrathin nanotip drives highly efficient hydrogen evolution. Applied<br>Catalysis B: Environmental, 2020, 262, 118305.   | 20.2 | 20        |
| 27 | Resorcinarene Induced Assembly of Carotene and Lutein into Hierarchical Superstructures. Journal of the American Chemical Society, 2020, 142, 20583-20587.   | 13.7 | 19        |
| 28 | Electronic states and photoluminescence of TiO2 nanotubes with adsorbed surface oxygen. Applied Physics Letters, 2012, 100, 121904.  | 3.3  | 17        |
| 29 | Longitudinal optical phonon–plasmon coupling in luminescent 3C–SiC nanocrystal films. Optics<br>Letters, 2010, 35, 4024.   | 3.3  | 15        |
| 30 | Reaction kinetic acceleration induced by atomic-hybridized channels in carbon quantum dot/ReS2 composites for efficient Cr(VI) reduction. Applied Catalysis B: Environmental, 2022, 300, 119807.                   | 20.2 | 15        |
| 31 | Electronic reconfiguration induced by neighboring exchange interaction at double perovskite oxide<br>interface for highly efficient oxygen evolution reaction. Chemical Engineering Journal, 2022, 432,<br>134330. | 12.7 | 15        |
| 32 | Raman investigation of oxidation mechanism of silicon nanowires. Applied Physics Letters, 2009, 95, .  | 3.3  | 14        |
| 33 | Distorted Monolayer ReS <sub>2</sub> with Low-Magnetic-Field Controlled Magnetoelectricity. ACS Nano, 2019, 13, 2334-2340.   | 14.6 | 14        |
| 34 | Twinning Ge0.54Si0.46 nanocrystal growth mechanism in amorphous SiO2 films. Applied Physics<br>Letters, 2010, 96, .  | 3.3  | 13        |
| 35 | Identification of local silicon cluster nanostructures inside SixGe1â^'x alloy nanocrystals by Raman spectroscopy. Chemical Communications, 2010, 46, 5539.  | 4.1  | 13        |
| 36 | Enhancement of Ferromagnetism in Nonmagnetic Metal Oxide Nanoparticles by Facet Engineering.<br>Small, 2017, 13, 1602951.  | 10.0 | 12        |

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|----|---|------|-----------|
| 37 | Polarization-induced efficient charge separation in an electromagnetic coupling MOF for enhancing<br>CO2 photocatalytic reduction. Journal of Colloid and Interface Science, 2022, 622, 402-409.  | 9.4  | 12        |
| 38 | Influence of GeSi interfacial layer on Ge–Ge optical phonon mode in SiO2 films embedded with Ge<br>nanocrystals. Applied Physics Letters, 2009, 95, .   | 3.3  | 11        |
| 39 | 3C-SiC nanocrystals/TiO2 nanotube heterostructures with enhanced photocatalytic performance.<br>Applied Physics Letters, 2014, 104, .   | 3.3  | 11        |
| 40 | Photoluminescence from colloids containing aluminum hydroxide nanocrystals with uniform size.<br>Applied Physics Letters, 2010, 97, 121901.   | 3.3  | 10        |
| 41 | Identification of Lattice Oxygen in Few-Layer Black Phosphorous Exfoliated in Ultrahigh Vacuum and<br>Largely Improved Ambipolar Field-Effect Mobilities by Hydrogenation and Phosphorization. ACS Applied<br>Materials & Interfaces, 2017, 9, 39804-39811. | 8.0  | 10        |
| 42 | Ferromagnetism regulated by edged cutting and optical identification in monolayer PtSe2 nanoribbons. Journal Physics D: Applied Physics, 2018, 51, 225007.  | 2.8  | 10        |
| 43 | Size-independent low-frequency Raman scattering in Ge-nanocrystal-embedded SiO_2 films. Optics<br>Letters, 2010, 35, 1022.  | 3.3  | 9         |
| 44 | Stimulus-responsive electrochemiluminescence from self-assembled block copolymer and nonpolar carbon quantum dot composite nanospheres. Carbon, 2019, 147, 532-539.   | 10.3 | 9         |
| 45 | Ordered amorphous silicon nanoisland arrays and reflection spectral dependence on nanoisland geometrical parameters. Applied Physics Letters, 2009, 94, 151903.   | 3.3  | 8         |
| 46 | Surface carbon layer and visible-light photocatalytic activities of carbon-coated TiO 2 nanotubes<br>synthesized in organic electrolytes. Applied Physics A: Materials Science and Processing, 2011, 105,<br>703-707.                                       | 2.3  | 7         |
| 47 | Morphology-dependent low-frequency Raman scattering in ultrathin spherical, cubic, and cuboid<br>SnO2 nanocrystals. Applied Physics Letters, 2011, 99, 251902.  | 3.3  | 7         |
| 48 | Dopant-Induced Surface Magnetism in β-SiC Controlled by Dopant Depth. Journal of Physical Chemistry C, 2014, 118, 25429-25433.  | 3.1  | 7         |
| 49 | Engineering the carrier dynamics of g-C <sub>3</sub> N <sub>4</sub> by rolling up planar sheets into nanotubes <i>via</i> ultrasonic cavitation. Nanoscale, 2018, 10, 22448-22455.  | 5.6  | 7         |
| 50 | Oxygen-defect-dependent ferromagnetism and strain modulation in free-standing two-dimensional<br>TiO <sub>2</sub> monolayers. Physical Chemistry Chemical Physics, 2018, 20, 27176-27184.   | 2.8  | 7         |
| 51 | Constructing Asymmetrical Ni-Centered {NiN <sub>2</sub> O <sub>4</sub> } Octahedra in Layered<br>Metal–Organic Structures for Near-Room-Temperature Single-Phase Magnetoelectricity. Journal of<br>the American Chemical Society, 2020, 142, 12841-12849.   | 13.7 | 7         |
| 52 | 3C-SiC/ZnS heterostructured nanospheres with high photocatalytic activity and enhancement mechanism. AIP Advances, 2015, 5, .   | 1.3  | 6         |
| 53 | Enhancing hydrogen evolution reaction by strain engineering in free-standing doped FeS monolayer.<br>Materials Chemistry and Physics, 2020, 239, 122046.  | 4.0  | 6         |
| 54 | Light ontrolled Ferromagnetism in Porphyrin Functionalized Ultrathin FeS Nanosheets. Advanced<br>Optical Materials, 2020, 8, 2000046.   | 7.3  | 6         |

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|----|---|-----|-----------|
| 55 | Surface-polarization-induced formation of amorphous foliaceous SiO2 helical nanobelts. Applied<br>Physics Letters, 2009, 94, 253110.  | 3.3 | 5         |
| 56 | Enhanced fluorescence from dye molecules by Au nanoparticles on asymmetric double-stranded DNA<br>and mechanism. Applied Physics Letters, 2014, 104, .  | 3.3 | 5         |
| 57 | Strong histamine torsion Raman spectrum enables direct, rapid, and ultrasensitive detection of allergic diseases. IScience, 2021, 24, 103384.   | 4.1 | 5         |
| 58 | Si–Si optical phonon behavior in localized Si clusters ofÂSi x Ge1â^'x ÂalloyÂnanocrystals. Applied Physics<br>A: Materials Science and Processing, 2011, 103, 361-365.                               | 2.3 | 4         |
| 59 | Prediction of room-temperature multiferroicity in strained MoCr2S6 monolayer. Journal of Applied Physics, 2020, 127, 155302.  | 2.5 | 4         |
| 60 | Defect-engineering-enhanced electrical manipulation of anisotropic excitons in two-dimensional ReS2. Surfaces and Interfaces, 2021, 27, 101562.   | 3.0 | 4         |
| 61 | Regulation of oxygen vacancy types on SnO2 (110) surface by external strain. AIP Advances, 2016, 6, 055102.   | 1.3 | 3         |
| 62 | Electronic coupling between sulfur adsorption and oxygen vacancy in TiO <sub>2</sub><br>microstructures for room-temperature ferromagnetism. Journal Physics D: Applied Physics, 2017, 50,<br>365304. | 2.8 | 3         |
| 63 | Electronic structure and the hydrogen evolution reaction in layered ReS2 regulated by alkali-metal atom intercalation. Journal Physics D: Applied Physics, 2019, 52, 165301.                          | 2.8 | 3         |
| 64 | Superficial state regulation in double-anion-coupled Ni nanostructure for efficient hydrogen evolution reaction. Journal Physics D: Applied Physics, 2021, 54, 285502.                                | 2.8 | 3         |
| 65 | Multi-electron-channel integration to accelerate photogenerated carrier reaction kinetics for efficient sulfadiazine degradation. Applied Catalysis A: General, 2022, 633, 118513.                    | 4.3 | 3         |
| 66 | The exchange between anions and cations induced by coupled plasma and thermal annealing treatment for room-temperature ferromagnetism. Physical Chemistry Chemical Physics, 2022, 24, 7001-7006.      | 2.8 | 3         |
| 67 | Electronic structure and optical properties of β-FeSi2(100)/Si(001) interface at high pressure. Applied Physics Letters, 2012, 101, 111909.   | 3.3 | 2         |
| 68 | Identification of nasopharyngeal carcinoma from photoluminescence spectra of 3C-SiC nanocrystals.<br>Journal of Applied Physics, 2017, 122, 124702.   | 2.5 | 2         |
| 69 | Crystalline Core/Shell Si/SiO <sub>2</sub> Nanotubes Formed via Interfacial Stress<br>Imbalance. Journal of Nanoscience and Nanotechnology, 2010, 10, 5583-5586.                                      | 0.9 | 1         |
| 70 | Photoluminescence and magnetism integrated multifunctional black phosphorus probes through controllable Pî€O bond orbital hybridization. Physical Chemistry Chemical Physics, 2021, 23, 22476-22482.  | 2.8 | 1         |
| 71 | Electronic structure transformation induced by dual-metal orbital hybridization in RexMn1-xS2 monolayer for hydrogen evolution reaction. Surfaces and Interfaces, 2022, 28, 101671.                   | 3.0 | 1         |
| 72 | Electronic reconfiguration in layered Bi2SeO2 surface induced by dual-metal hybridization for hydrogen evolution reaction. Surfaces and Interfaces, 2022, 29, 101779.                                 | 3.0 | 1         |

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|----|---|-----|-----------|
| 73 | Orbital Hybridization Induced by Doubleâ€Anion Coordination to Enhance Roomâ€Temperature<br>Ferromagnetic Response. Physica Status Solidi - Rapid Research Letters, 2022, 16, . | 2.4 | Ο         |