Weihao Zheng

List of Publications by Year
in descending order

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43 papers	3,132 citations	172207 29 h-index	253896 43 g-index
43 all docs	43 docs citations	43 times ranked	4412 citing authors

#	Article	IF	Citations
1	Directional Growth of Ultralong CsPbBr₃ Perovskite Nanowires for High-Performance Photodetectors. Journal of the American Chemical Society, 2017, 139, 15592-15595.	6.6	260
2	Vapor Growth and Tunable Lasing of Band Gap Engineered Cesium Lead Halide Perovskite Micro/Nanorods with Triangular Cross Section. ACS Nano, 2017, 11, 1189-1195.	7.3	245
3	Single-Mode Lasers Based on Cesium Lead Halide Perovskite Submicron Spheres. ACS Nano, 2017, 11, 10681-10688.	7.3	216
4	Single-Crystal Thin Films of Cesium Lead Bromide Perovskite Epitaxially Grown on Metal Oxide Perovskite (SrTiO₃). Journal of the American Chemical Society, 2017, 139, 13525-13532.	6.6	209
5	High-Quality In-Plane Aligned CsPbX₃ Perovskite Nanowire Lasers with Composition-Dependent Strong Excitonâ€“Photon Coupling. ACS Nano, 2018, 12, 6170-6178.	7.3	204
6	Interlayer exciton formation, relaxation, and transport in TMD van der Waals heterostructures. Light: Science and Applications, 2021, 10, 72.	7.7	184
7	Band Alignment Engineering in Two-Dimensional Lateral Heterostructures. Journal of the American Chemical Society, 2018, 140, 11193-11197.	6.6	136
8	Broken Symmetry Induced Strong Nonlinear Optical Effects in Spiral WS₂ Nanosheets. ACS Nano, 2017, 11, 4892-4898.	7.3	123
9	Direct Vapor Growth of Perovskite CsPbBr₃ Nanoplate Electroluminescence Devices. ACS Nano, 2017, 11, 9869-9876.	7.3	117
10	Cesium lead halide perovskite triangular nanorods as high-gain medium and effective cavities for multiphoton-pumped lasing. Nano Research, 2017, 10, 3385-3395.	5.8	113
11	Multicolor Heterostructures of Two-Dimensional Layered Halide Perovskites that Show Interlayer Energy Transfer. Journal of the American Chemical Society, 2018, 140, 15675-15683.	6.6	95
12	Controlled Vapor Growth and Nonlinear Optical Applications of Largeâ€Area 3R Phase WS₂ and WSe₂ Atomic Layers. Advanced Functional Materials, 2019, 29, 1806874.	7.8	92
13	Controllable Growth and Formation Mechanisms of Dislocated WS₂ Spirals. Nano Letters, 2018, 18, 3885-3892.	4.5	88
14	Light Emission Properties of 2D Transition Metal Dichalcogenides: Fundamentals and Applications. Advanced Optical Materials, 2018, 6, 1800420.	3.6	88
15	Direct Vapor Growth of 2D Vertical Heterostructures with Tunable Band Alignments and Interfacial Charge Transfer Behaviors. Advanced Science, 2019, 6, 1802204.	5.6	87
16	WO₃â€“WS₂ Vertical Bilayer Heterostructures with High Photoluminescence Quantum Yield. Journal of the American Chemical Society, 2019, 141, 11754-11758.	6.6	69
17	Ultrahigh-Performance Optoelectronics Demonstrated in Ultrathin Perovskite-Based Vertical Semiconductor Heterostructures. ACS Nano, 2019, 13, 7996-8003.	7.3	64
18	Vapor growth and interfacial carrier dynamics of high-quality CdS-CdSSe-CdS axial nanowire heterostructures. Nano Energy, 2017, 32, 28-35.	8.2	62

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19	High-responsivity two-dimensional p-PbI₂/n-WS₂ vertical heterostructure photodetectors enhanced by photogating effect. Materials Horizons, 2019, 6, 1474-1480.	6.4	51
20	Cooperative excitonic quantum ensemble in perovskite-assembly superlattice microcavities. Nature Communications, 2020, 11, 329.	5.8	51
21	Ultrahigh Quality Upconverted Singleâ€Mode Lasing in Cesium Lead Bromide Spherical Microcavity. Advanced Optical Materials, 2018, 6, 1800391.	3.6	47
22	Room temperature near unity spin polarization in 2D Van der Waals heterostructures. Nature Communications, 2020, 11, 4442.	5.8	44
23	Probing and Manipulating Carrier Interlayer Diffusion in van der Waals Multilayer by Constructing Type-I Heterostructure. Nano Letters, 2019, 19, 7217-7225.	4.5	42
24	Nonlinear photoluminescence in monolayer WS₂: parabolic emission and excitation fluence-dependent recombination dynamics. Nanoscale, 2017, 9, 7235-7241.	2.8	41
25	Visualizing Carrier Transport in Metal Halide Perovskite Nanoplates via Electric Field Modulated Photoluminescence Imaging. Nano Letters, 2018, 18, 3024-3031.	4.5	38
26	Single-mode lasing and 3D confinement from perovskite micro-cubic cavity. Journal of Materials Chemistry C, 2018, 6, 11740-11748.	2.7	37
27	Nearâ€Unity Polarization of Valleyâ€Dependent Secondâ€Harmonic Generation in Stacked TMDC Layers and Heterostructures at Room Temperature. Advanced Materials, 2020, 32, e1908061.	11.1	36
28	High-Temperature Upconverted Single-Mode Lasing in 3D Fully Inorganic Perovskite Microcubic Cavity. ACS Photonics, 2019, 6, 793-801.	3.2	35
29	Wavelength-Tunable Interlayer Exciton Emission at the Near-Infrared Region in van der Waals Semiconductor Heterostructures. Nano Letters, 2020, 20, 3361-3368.	4.5	35
30	Dualâ€channel type tunable fieldâ€effect transistors based on vertical bilayer WS_{2(1â€‰â^'â€‰x)}Se_{2x}/SnS₂ heterostructures. InformaÄnÃ MateriÃ¡ly, 2020, 2, 752-760.	15	32
31	Mechanism of Extreme Optical Nonlinearities in Spiral WS₂ above the Bandgap. Nano Letters, 2020, 20, 2667-2673.	4.5	25
32	Wavelength Selective Photodetectors Integrated on a Single Compositionâ€Graded Semiconductor Nanowire. Advanced Optical Materials, 2018, 6, 1800293.	3.6	21
33	Efficient control of emission and carrier polarity in WS2 monolayer by indium doping. Science China Materials, 2021, 64, 1449-1456.	3.5	21
34	Revealing Excitonic and Electron-Hole Plasma States in Stimulated Emission of Single <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mi>Cs</mml:mi><mml:mi>Pb</mml:mi><mml:mi>Br</mml:mi></mml:mrow><mml:n Nanowires at Room Temperature. Physical Review Applied, 2020, 13, .	1.5	19
35	Magnetic Doping Induced Strong Circularly Polarized Light Emission and Detection in 2D Layered Halide Perovskite. Advanced Optical Materials, 2022, 10, .	3.6	17
36	Photoluminescence Lightening: Extraordinary Oxygen Modulated Dynamics in WS₂ Monolayers. Nano Letters, 2022, 22, 2112-2119.	4.5	16

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37	Carrier-Funneling-Induced Efficient Energy Transfer in CdSxSe1â€“x Heterostructure Microplates. ACS Energy Letters, 2019, 4, 2796-2804.	8.8	15
38	Trion-Induced Distinct Transient Behavior and Stokes Shift in WS₂ Monolayers. Journal of Physical Chemistry Letters, 2019, 10, 3763-3772.	2.1	13
39	Broadband emission in all-inorganic metal halide perovskites with intrinsic vacancies. Journal of Materials Chemistry C, 2020, 8, 13976-13981.	2.7	13
40	Carrier Transport Across a CdS_xSe_{1â€“x} Lateral Heterojunction Visualized by Ultrafast Microscopy. Journal of Physical Chemistry C, 2020, 124, 11325-11332.	1.5	11
41	Lightâ€Soaking Induced Optical Tuning in Rare Earthâ€Doped Allâ€Inorganic Perovskite. Advanced Functional Materials, 2022, 32, 2107086.	7.8	10
42	Revealing the many-body interactions and valley-polarization behavior in Re-doped MoS2 monolayers. Applied Physics Letters, 2021, 118, .	1.5	6
43	Defect-induced distinct exciton-exciton interactions in WS2 monolayers. Science China Materials, 2022, 65, 2502-2510.	3.5	4