

# Weihao Zheng

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

42  
papers

2,061  
citations

25  
h-index

43  
g-index

43  
ext. papers

2,600  
ext. citations

12.5  
avg, IF

4.79  
L-index

#	Paper	IF	Citations
42	Photoluminescence Lightening: Extraordinary Oxygen Modulated Dynamics in WS Monolayers.. <i>Nano Letters</i> , <b>2022</b> ,	11.5	3
41	Efficient control of emission and carrier polarity in WS <sub>2</sub> monolayer by indium doping. <i>Science China Materials</i> , <b>2021</b> , 64, 1449-1456	7.1	6
40	Interlayer exciton formation, relaxation, and transport in TMD van der Waals heterostructures. <i>Light: Science and Applications</i> , <b>2021</b> , 10, 72	16.7	36
39	Revealing the many-body interactions and valley-polarization behavior in Re-doped MoS <sub>2</sub> monolayers. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 113101	3.4	2
38	Carrier Transport Across a CdSxSe1-x Lateral Heterojunction Visualized by Ultrafast Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 11325-11332	3.8	7
37	Near-Unity Polarization of Valley-Dependent Second-Harmonic Generation in Stacked TMDC Layers and Heterostructures at Room Temperature. <i>Advanced Materials</i> , <b>2020</b> , 32, e1908061	24	17
36	Mechanism of Extreme Optical Nonlinearities in Spiral WS above the Bandgap. <i>Nano Letters</i> , <b>2020</b> , 20, 2667-2673	11.5	14
35	Cooperative excitonic quantum ensemble in perovskite-assembly superlattice microcavities. <i>Nature Communications</i> , <b>2020</b> , 11, 329	17.4	30
34	Revealing Excitonic and Electron-Hole Plasma States in Stimulated Emission of Single CsPbBr <sub>3</sub> Nanowires at Room Temperature. <i>Physical Review Applied</i> , <b>2020</b> , 13,	4.3	13
33	Wavelength-Tunable Interlayer Exciton Emission at the Near-Infrared Region in van der Waals Semiconductor Heterostructures. <i>Nano Letters</i> , <b>2020</b> , 20, 3361-3368	11.5	17
32	Dual-channel type tunable field-effect transistors based on vertical bilayer WS <sub>2</sub> (1-x)Se <sub>2x</sub> /SnS <sub>2</sub> heterostructures. <i>Information Materials</i> , <b>2020</b> , 2, 752-760	23.1	17
31	Broadband emission in all-inorganic metal halide perovskites with intrinsic vacancies. <i>Journal of Materials Chemistry C</i> , <b>2020</b> , 8, 13976-13981	7.1	6
30	Room temperature near unity spin polarization in 2D Van der Waals heterostructures. <i>Nature Communications</i> , <b>2020</b> , 11, 4442	17.4	20
29	Probing and Manipulating Carrier Interlayer Diffusion in van der Waals Multilayer by Constructing Type-I Heterostructure. <i>Nano Letters</i> , <b>2019</b> , 19, 7217-7225	11.5	23
28	Controlled Vapor Growth and Nonlinear Optical Applications of Large-Area 3R Phase WS <sub>2</sub> and WSe <sub>2</sub> Atomic Layers. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1806874	15.6	59
27	Trion-Induced Distinct Transient Behavior and Stokes Shift in WS Monolayers. <i>Journal of Physical Chemistry Letters</i> , <b>2019</b> , 10, 3763-3772	6.4	11
26	Ultrahigh-Performance Optoelectronics Demonstrated in Ultrathin Perovskite-Based Vertical Semiconductor Heterostructures. <i>ACS Nano</i> , <b>2019</b> , 13, 7996-8003	16.7	45

25	High-responsivity two-dimensional p-PbI <sub>2</sub> /n-WS <sub>2</sub> vertical heterostructure photodetectors enhanced by photogating effect. <i>Materials Horizons</i> , <b>2019</b> , 6, 1474-1480	14.4	30
24	WO-WS Vertical Bilayer Heterostructures with High Photoluminescence Quantum Yield. <i>Journal of the American Chemical Society</i> , <b>2019</b> , 141, 11754-11758	16.4	29
23	Carrier-Funneling-Induced Efficient Energy Transfer in CdSxSe <sub>1-x</sub> Heterostructure Microplates. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 2796-2804	20.1	12
22	High-Temperature Upconverted Single-Mode Lasing in 3D Fully Inorganic Perovskite Microcubic Cavity. <i>ACS Photonics</i> , <b>2019</b> , 6, 793-801	6.3	26
21	Direct Vapor Growth of 2D Vertical Heterostructures with Tunable Band Alignments and Interfacial Charge Transfer Behaviors. <i>Advanced Science</i> , <b>2019</b> , 6, 1802204	13.6	57
20	Wavelength Selective Photodetectors Integrated on a Single Composition-Graded Semiconductor Nanowire. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800293	8.1	15
19	Visualizing Carrier Transport in Metal Halide Perovskite Nanoplates via Electric Field Modulated Photoluminescence Imaging. <i>Nano Letters</i> , <b>2018</b> , 18, 3024-3031	11.5	29
18	Ultrahigh Quality Upconverted Single-Mode Lasing in Cesium Lead Bromide Spherical Microcavity. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800391	8.1	31
17	Light Emission Properties of 2D Transition Metal Dichalcogenides: Fundamentals and Applications. <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800420	8.1	53
16	Band Alignment Engineering in Two-Dimensional Lateral Heterostructures. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 11193-11197	16.4	85
15	High-Quality In-Plane Aligned CsPbX Perovskite Nanowire Lasers with Composition-Dependent Strong Exciton-Photon Coupling. <i>ACS Nano</i> , <b>2018</b> , 12, 6170-6178	16.7	147
14	Single-mode lasing and 3D confinement from perovskite micro-cubic cavity. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 11740-11748	7.1	30
13	Multicolor Heterostructures of Two-Dimensional Layered Halide Perovskites that Show Interlayer Energy Transfer. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 15675-15683	16.4	65
12	Controllable Growth and Formation Mechanisms of Dislocated WS Spirals. <i>Nano Letters</i> , <b>2018</b> , 18, 3885-3892	13.5	62
11	Broken Symmetry Induced Strong Nonlinear Optical Effects in Spiral WS Nanosheets. <i>ACS Nano</i> , <b>2017</b> , 11, 4892-4898	16.7	79
10	Nonlinear photoluminescence in monolayer WS: parabolic emission and excitation fluence-dependent recombination dynamics. <i>Nanoscale</i> , <b>2017</b> , 9, 7235-7241	7.7	30
9	Cesium lead halide perovskite triangular nanorods as high-gain medium and effective cavities for multiphoton-pumped lasing. <i>Nano Research</i> , <b>2017</b> , 10, 3385-3395	10	89
8	Vapor Growth and Tunable Lasing of Band Gap Engineered Cesium Lead Halide Perovskite Micro/Nanorods with Triangular Cross Section. <i>ACS Nano</i> , <b>2017</b> , 11, 1189-1195	16.7	199

7	Vapor growth and interfacial carrier dynamics of high-quality CdS-CdSSe-CdS axial nanowire heterostructures. <i>Nano Energy</i> , <b>2017</b> , 32, 28-35	17.1	53
6	Single-Mode Lasers Based on Cesium Lead Halide Perovskite Submicron Spheres. <i>ACS Nano</i> , <b>2017</b> , 11, 10681-10688	16.7	168
5	Directional Growth of Ultralong CsPbBr Perovskite Nanowires for High-Performance Photodetectors. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 15592-15595	16.4	195
4	Direct Vapor Growth of Perovskite CsPbBr Nanoplate Electroluminescence Devices. <i>ACS Nano</i> , <b>2017</b> , 11, 9869-9876	16.7	96
3	Single-Crystal Thin Films of Cesium Lead Bromide Perovskite Epitaxially Grown on Metal Oxide Perovskite (SrTiO). <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 13525-13532	16.4	147
2	Light-Soaking Induced Optical Tuning in Rare Earth-Doped All-Inorganic Perovskite. <i>Advanced Functional Materials</i> , 2107086	15.6	2
1	Magnetic Doping Induced Strong Circularly Polarized Light Emission and Detection in 2D Layered Halide Perovskite. <i>Advanced Optical Materials</i> , 2200183	8.1	5