

Tianyi Zhang

List of Publications by Year in descending order

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docs citations

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times ranked

2929
citing authors

#	ARTICLE	IF	CITATIONS
1	Wafer-Scale Epitaxial Growth of Unidirectional WS ₂ Monolayers on Sapphire. ACS Nano, 2021, 15, 2532-2541.	7.3	149
2	Angstrom-Size Defect Creation and Ionic Transport through Pores in Single-Layer MoS ₂ . Nano Letters, 2018, 18, 1651-1659.	4.5	129
3	Carbon doping of WS ₂ monolayers: Bandgap reduction and p-type doping transport. Science Advances, 2019, 5, eaav5003.	4.7	119
4	Defect-Controlled Nucleation and Orientation of WSe ₂ on hBN: A Route to Single-Crystal Epitaxial Monolayers. ACS Nano, 2019, 13, 3341-3352.	7.3	107
5	Monolayer Vanadium-Doped Tungsten Disulfide: A Room-Temperature Dilute Magnetic Semiconductor. Advanced Science, 2020, 7, 2001174.	5.6	104
6	Monolayer WS ₂ Nanopores for DNA Translocation with Light-Adjustable Sizes. ACS Nano, 2017, 11, 1937-1945.	7.3	102
7	Universal <i>In Situ</i> Substitutional Doping of Transition Metal Dichalcogenides by Liquid-Phase Precursor-Assisted Synthesis. ACS Nano, 2020, 14, 4326-4335.	7.3	100
8	Tunable Fano Resonance and Plasmon-Exciton Coupling in Single Au Nanotriangles on Monolayer WS ₂ at Room Temperature. Advanced Materials, 2018, 30, e1705779.	11.1	88
9	Ultrasensitive Pressure Detection of Few-Layer MoS ₂ . Advanced Materials, 2017, 29, 1603266.	11.1	82
10	Tunable Resonance Coupling in Single Si Nanoparticle-Monolayer WS ₂ Structures. ACS Applied Materials & Interfaces, 2018, 10, 16690-16697.	4.0	82
11	Highly conductive, twistable and bendable polypyrrole-carbon nanotube fiber for efficient supercapacitor electrodes. RSC Advances, 2015, 5, 22015-22021.	1.7	63
12	Spontaneous chemical functionalization via coordination of Au single atoms on monolayer MoS ₂ . Science Advances, 2020, 6, .	4.7	56
13	Transfer of monolayer TMD WS ₂ and Raman study of substrate effects. Scientific Reports, 2017, 7, 43037.	1.6	51
14	Quantification and Healing of Defects in Atomically Thin Molybdenum Disulfide: Beyond the Controlled Creation of Atomic Defects. ACS Nano, 2021, 15, 9658-9669.	7.3	37
15	High-energy-density, all-solid-state microsupercapacitors with three-dimensional interdigital electrodes of carbon/polymer electrolyte composite. Nanotechnology, 2016, 27, 045701.	1.3	35
16	Nonlinear Dark-Field Imaging of One-Dimensional Defects in Monolayer Dichalcogenides. Nano Letters, 2020, 20, 284-291.	4.5	34
17	Clean Transfer of 2D Transition Metal Dichalcogenides Using Cellulose Acetate for Atomic Resolution Characterizations. ACS Applied Nano Materials, 2019, 2, 5320-5328.	2.4	33
18	Electrochemical Polishing of Two-Dimensional Materials. ACS Nano, 2019, 13, 78-86.	7.3	33

#	ARTICLE	IF	CITATIONS
19	Darkâ€Excitonâ€Mediated Fano Resonance from a Single Gold Nanostructure on Monolayer WS ₂ at Room Temperature. <i>Small</i> , 2019, 15, e1900982.	5.2	25
20	Second- and third-order optical susceptibilities across excitons states in 2D monolayer transition metal dichalcogenides. <i>2D Materials</i> , 2021, 8, 035010.	2.0	24
21	Intentional carbon doping reveals CH as an abundant charged impurity in nominally undoped synthetic WS ₂ and WSe ₂ . <i>2D Materials</i> , 2020, 7, 031003.	2.0	22
22	One-step solid-state pyrolysis of bio-wastes to synthesize multi-hierarchical porous carbon for ultra-long life supercapacitors. <i>Materials Chemistry Frontiers</i> , 2021, 5, 2320-2327.	3.2	22
23	Functional hetero-interfaces in atomically thin materials. <i>Materials Today</i> , 2020, 37, 74-92.	8.3	21
24	Nanoscale mapping of quasiparticle band alignment. <i>Nature Communications</i> , 2019, 10, 3283.	5.8	20
25	2D Materials for Universal Thermal Imaging of Micro- and Nanodevices: An Application to Gallium Oxide Electronics. <i>ACS Applied Electronic Materials</i> , 2020, 2, 2945-2953.	2.0	19
26	Confined Crack Propagation in MoS ₂ Monolayers by Creating Atomic Vacancies. <i>ACS Nano</i> , 2021, 15, 1210-1216.	7.3	19
27	Catalysis-free transformation of non-graphitising carbons into highly crystalline graphite. <i>Communications Materials</i> , 2020, 1, .	2.9	17
28	Pressure Sensors: Ultrasensitive Pressure Detection of Fewâ€Layer MoS ₂ (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	11.1	16
29	Direct growth of monolayer 1Tâ€2H MoS ₂ heterostructures using KCl-assisted CVD process. <i>2D Materials</i> , 2021, 8, 025033.	2.0	16
30	Directional Modulation of Exciton Emission Using Single Dielectric Nanospheres. <i>Advanced Materials</i> , 2021, 33, e2007236.	11.1	15
31	Spin-dependent vibronic response of a carbon radical ion in two-dimensional WS ₂ . <i>Nature Communications</i> , 2021, 12, 7287.	5.8	15
32	Photodegradation Protection in 2D In-Plane Heterostructures Revealed by Hyperspectral Nanoimaging: The Role of Nanointerface 2D Alloys. <i>ACS Nano</i> , 2021, 15, 2447-2457.	7.3	14
33	Roomâ€Temperature Observation of Nearâ€Intrinsic Exciton Linewidth in Monolayer WS ₂ . <i>Advanced Materials</i> , 2022, 34, e2108721.	11.1	11
34	Second harmonic generation in two-dimensional transition metal dichalcogenides with growth and post-synthesis defects. <i>2D Materials</i> , 2020, 7, 045020.	2.0	10
35	Superconductivity enhancement in phase-engineered molybdenum carbide/disulfide vertical heterostructures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 19685-19693.	3.3	6
36	Multiple excitations and temperature study of the disorder-induced Raman bands in MoS ₂ . <i>2D Materials</i> , 2021, 8, 035042.	2.0	6

#	ARTICLE	IF	CITATIONS
37	Autonomous scanning probe microscopy investigations over WS ₂ and Au{111}. Npj Computational Materials, 2022, 8, .	3.5	6
38	3d transition metal coordination on monolayer MoS ₂ : a facile doping method to functionalize surfaces. Nanoscale, 2022, 14, 10801-10815.	2.8	5
39	Internal Parameters Calibration of Vision Sensor and Application of High Precision Integrated Detection in Intelligent Welding Based on Plane Fitting. Sensors, 2022, 22, 2117.	2.1	3
40	Room-temperature Observation of Near-Intrinsic Exciton Linewidth in Monolayer WS ₂ (Adv. Mater. 15/2022). Advanced Materials, 2022, 34, .	11.1	2
41	Fano Resonances: Tunable Fano Resonance and Plasmon-Exciton Coupling in Single Au Nanotriangles on Monolayer WS ₂ at Room Temperature (Adv. Mater. 22/2018). Advanced Materials, 2018, 30, 1870155.	11.1	1
42	Dielectric Nanospheres: Directional Modulation of Exciton Emission Using Single Dielectric Nanospheres (Adv. Mater. 20/2021). Advanced Materials, 2021, 33, 2170153.	11.1	1
43	Dark Excitons: Dark-Exciton-Mediated Fano Resonance from a Single Gold Nanostructure on Monolayer WS ₂ at Room Temperature (Small 31/2019). Small, 2019, 15, 1970164.	5.2	0