

# Fucaï Liu

## List of Publications by Year in descending order

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49  
papers

6,438  
citations

117571

34  
h-index

197736

49  
g-index

50  
all docs

50  
docs citations

50  
times ranked

9068  
citing authors

#	ARTICLE	IF	CITATIONS
1	A library of atomically thin metal chalcogenides. <i>Nature</i> , 2018, 556, 355-359.	13.7	1,225
2	Room-temperature ferroelectricity in CuInP2S6 ultrathin flakes. <i>Nature Communications</i> , 2016, 7, 12357.	5.8	637
3	Highly Sensitive Detection of Polarized Light Using Anisotropic 2D ReS <sub>2</sub> . <i>Advanced Functional Materials</i> , 2016, 26, 1169-1177.	7.8	376
4	Two-dimensional heterostructures: fabrication, characterization, and application. <i>Nanoscale</i> , 2014, 6, 12250-12272.	2.8	323
5	High-Sensitivity Photodetectors Based on Multilayer GaTe Flakes. <i>ACS Nano</i> , 2014, 8, 752-760.	7.3	319
6	High-quality monolayer superconductor NbSe <sub>2</sub> grown by chemical vapour deposition. <i>Nature Communications</i> , 2017, 8, 394.	5.8	290
7	Synergistic Gating of Electro-Photoactive 2D Chalcogenide Neuristors: Coexistence of Hebbian and Homeostatic Synaptic Metaplasticity. <i>Advanced Materials</i> , 2018, 30, e1800220.	11.1	261
8	High Mobility 2D Palladium Diselenide Field-Effect Transistors with Tunable Ambipolar Characteristics. <i>Advanced Materials</i> , 2017, 29, 1602969.	11.1	251
9	Controlled Synthesis of High-Quality Monolayered In <sub>2</sub> Se <sub>3</sub> via Physical Vapor Deposition. <i>Nano Letters</i> , 2015, 15, 6400-6405.	4.5	239
10	Natural van der Waals heterostructural single crystals with both magnetic and topological properties. <i>Science Advances</i> , 2019, 5, eaax9989.	4.7	193
11	Ultrasensitive 2D Bi <sub>2</sub> O <sub>2</sub> Se Phototransistors on Silicon Substrates. <i>Advanced Materials</i> , 2019, 31, e1804945.	11.1	183
12	Large-Area and High-Quality 2D Transition Metal Telluride. <i>Advanced Materials</i> , 2017, 29, 1603471.	11.1	181
13	2D Material Based Synaptic Devices for Neuromorphic Computing. <i>Advanced Functional Materials</i> , 2021, 31, 2005443.	7.8	165
14	Origin of giant negative piezoelectricity in a layered van der Waals ferroelectric. <i>Science Advances</i> , 2019, 5, eaav3780.	4.7	157
15	Fast Photoresponse from 1T Tin Diselenide Atomic Layers. <i>Advanced Functional Materials</i> , 2016, 26, 137-145.	7.8	150
16	Metal-Semiconductor Phase Transition in WSe <sub>2</sub> (1-x)Te <sub>2x</sub> Monolayer. <i>Advanced Materials</i> , 2017, 29, 1603991.	11.1	123
17	Van der Waals p-n Junction Based on an Organic-Inorganic Heterostructure. <i>Advanced Functional Materials</i> , 2015, 25, 5865-5871.	7.8	98
18	InSe monolayer: synthesis, structure and ultra-high second-harmonic generation. <i>2D Materials</i> , 2018, 5, 025019.	2.0	92

#	ARTICLE	IF	CITATIONS
19	One-Step Synthesis of Metal/Semiconductor Heterostructure NbS <sub>2</sub> /MoS <sub>2</sub> . Chemistry of Materials, 2018, 30, 4001-4007.	3.2	85
20	Ferroelectric-field accelerated charge transfer in 2D CuInP2S6 heterostructure for enhanced photocatalytic H2 evolution. Nano Energy, 2020, 76, 104972.	8.2	84
21	Epitaxial Synthesis of Monolayer PtSe <sub>2</sub> Single Crystal on MoSe <sub>2</sub> with Strong Interlayer Coupling. ACS Nano, 2019, 13, 10929-10938.	7.3	72
22	Morphology Engineering in Monolayer MoS <sub>2</sub> WS <sub>2</sub> Lateral Heterostructures. Advanced Functional Materials, 2018, 28, 1801568.	7.8	67
23	Coupling and Interlayer Exciton in Twist-Stacked WS <sub>2</sub> Bilayers. Advanced Optical Materials, 2015, 3, 1600-1605.	3.6	63
24	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. Nature Materials, 2023, 22, 450-458.	13.3	62
25	2D Black Phosphorus/SrTiO <sub>3</sub> -Based Programmable Photoconductive Switch. Advanced Materials, 2016, 28, 7768-7773.	11.1	57
26	Electric Field Effect in Two-Dimensional Transition Metal Dichalcogenides. Advanced Functional Materials, 2017, 27, 1602404.	7.8	57
27	Controlled synthesis and room-temperature pyroelectricity of CuInP2S6 ultrathin flakes. Nano Energy, 2019, 58, 596-603.	8.2	52
28	Light-Tunable 1T-TaS <sub>2</sub> Charge-Density-Wave Oscillators. ACS Nano, 2018, 12, 11203-11210.	7.3	51
29	Recent progress in the synthesis of novel two-dimensional van der Waals materials. National Science Review, 2022, 9, nwab164.	4.6	50
30	Production Methods of Van der Waals Heterostructures Based on Transition Metal Dichalcogenides. Crystals, 2018, 8, 35.	1.0	47
31	Mimicking Neuroplasticity via Ion Migration in van der Waals Layered Copper Indium Thiophosphate. Advanced Materials, 2022, 34, e2104676.	11.1	46
32	Toward 2D Magnets in the (MnBi <sub>2</sub> Te <sub>4</sub> )(Bi <sub>2</sub> Te <sub>3</sub> ) <sub>n</sub> Bulk Crystal. Advanced Materials, 2020, 32, e2001815.	11.1	45
33	Nanostructured Materials and Architectures for Advanced Optoelectronic Synaptic Devices. Advanced Functional Materials, 2022, 32, .	7.8	45
34	A Tandem 0D/2D/2D NbS <sub>2</sub> Quantum Dot/Nb <sub>2</sub> O <sub>5</sub> Nanosheet/g-C <sub>3</sub> N <sub>4</sub> Flake System with Spatial Charge-Transfer Cascades for Boosting Photocatalytic Hydrogen Evolution. Small, 2020, 16, e2003302.	5.2	40
35	2D PtS nanorectangles/g-C <sub>3</sub> N <sub>4</sub> nanosheets with a metal sulfide support interaction effect for high-efficiency photocatalytic H <sub>2</sub> evolution. Materials Horizons, 2021, 8, 612-618.	6.4	34
36	High resistance against ultraviolet photorefraction in zirconium-doped lithium niobate crystals. Optics Letters, 2010, 35, 10.	1.7	31

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37	2D/2D atomic double-layer WS <sub>2</sub> /Nb <sub>2</sub> O <sub>5</sub> shell/core nanosheets with ultrafast interfacial charge transfer for boosting photocatalytic H <sub>2</sub> evolution. Chinese Chemical Letters, 2021, 32, 3128-3132.	4.8	23
38	Fast responsive nonvolatile holographic storage in LiNbO <sub>3</sub> triply doped with Zr, Fe, and Mn. Optics Letters, 2009, 34, 3896.	1.7	21
39	Anomalous Photothermoelectric Transport Due to Anisotropic Energy Dispersion in WTe <sub>2</sub> . Nano Letters, 2019, 19, 2647-2652.	4.5	21
40	Color-Recognizing Si-Based Photonic Synapse for Artificial Visual System. Advanced Intelligent Systems, 2020, 2, 2000107.	3.3	21
41	Improved sensitivity of nonvolatile holographic storage in triply doped LiNbO <sub>3</sub> :Zr,Cu,Ce. Optics Express, 2010, 18, 6333.	1.7	20
42	Room-temperature electrically driven phase transition of two-dimensional 1T-TaS <sub>2</sub> layers. Nanoscale, 2017, 9, 2436-2441.	2.8	19
43	Direct Laser Patterning of a 2D WSe <sub>2</sub> Logic Circuit. Advanced Functional Materials, 2021, 31, 2009549.	7.8	15
44	Sea-urchin-like ReS <sub>2</sub> nanosheets with charge edge-collection effect as a novel cocatalyst for high-efficiency photocatalytic H <sub>2</sub> evolution. Chinese Chemical Letters, 2022, 33, 943-947.	4.8	14
45	Emerging Phases of Layered Metal Chalcogenides. Small, 2022, 18, e2105215.	5.2	12
46	Nonvolatile holographic storage of near-stoichiometric LiNbO <sub>3</sub> :Cu:Ce with green light. Applied Optics, 2007, 46, 7620.	2.1	9
47	Solid-Ionic Memory in a van der Waals Heterostructure. ACS Nano, 2022, 16, 221-231.	7.3	6
48	2D semiconductor SnP <sub>2</sub> S <sub>6</sub> as a new dielectric material for 2D electronics. Journal of Materials Chemistry C, 2022, 10, 13753-13761.	2.7	5
49	Layered transition metal chalcogenophosphate towards air-stable visible light photodetection. Journal of Physics: Conference Series, 2022, 2174, 012025.	0.3	1