

Fu-Cai Liu

List of Publications by Year in descending order

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71061

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docs citations

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times ranked

9338
citing authors

#	ARTICLE	IF	CITATIONS
1	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. <i>Nature Materials</i> , 2023, 22, 450-458.	13.3	62
2	Two-dimensional Nb ₃ Cl ₈ memristor based on desorption and adsorption of O ₂ molecules. <i>Rare Metals</i> , 2022, 41, 325-332.	3.6	5
3	Sea-urchin-like ReS ₂ nanosheets with charge edge-collection effect as a novel cocatalyst for high-efficiency photocatalytic H ₂ evolution. <i>Chinese Chemical Letters</i> , 2022, 33, 943-947.	4.8	14
4	Recent progress in the synthesis of novel two-dimensional van der Waals materials. <i>National Science Review</i> , 2022, 9, nwab164.	4.6	50
5	Mimicking Neuroplasticity via Ion Migration in van der Waals Layered Copper Indium Thiophosphate. <i>Advanced Materials</i> , 2022, 34, e2104676.	11.1	46
6	Solid-Ionic Memory in a van der Waals Heterostructure. <i>ACS Nano</i> , 2022, 16, 221-231.	7.3	6
7	A Modified SiO ₂ -Based Memristor with Reliable Switching and Multifunctional Synaptic Behaviors. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 884-893.	2.1	14
8	Nanostructured Materials and Architectures for Advanced Optoelectronic Synaptic Devices. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	45
9	An oxide-based heterojunction optoelectronic synaptic device with wideband and rapid response performance. <i>Journal of Materials Science and Technology</i> , 2022, 123, 159-167.	5.6	6
10	Emerging Phases of Layered Metal Chalcogenides. <i>Small</i> , 2022, 18, e2105215.	5.2	12
11	Multifunctional Analog Resistance Switching of Si ₃ N ₄ -Based Memristors through Migration of Ag ⁺ Ions and Formation of Si-Dangling Bonds. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 5101-5108.	2.1	6
12	2D semiconductor SnP ₂ S ₆ as a new dielectric material for 2D electronics. <i>Journal of Materials Chemistry C</i> , 2022, 10, 13753-13761.	2.7	5
13	2D Material Based Synaptic Devices for Neuromorphic Computing. <i>Advanced Functional Materials</i> , 2021, 31, 2005443.	7.8	165
14	2D PtS nanorectangles/g-C ₃ N ₄ nanosheets with a metal sulfide support interaction effect for high-efficiency photocatalytic H ₂ evolution. <i>Materials Horizons</i> , 2021, 8, 612-618.	6.4	34
15	Synaptic Devices: 2D Material Based Synaptic Devices for Neuromorphic Computing (Adv. Funct. Mater.) Tj ETQq1 1, 0.784314 rgBT /Ov	7.8	14
16	2D/2D atomic double-layer WS ₂ /Nb ₂ O ₅ shell/core nanosheets with ultrafast interfacial charge transfer for boosting photocatalytic H ₂ evolution. <i>Chinese Chemical Letters</i> , 2021, 32, 3128-3132.	4.8	23
17	Direct Laser Patterning of a 2D WSe ₂ Logic Circuit. <i>Advanced Functional Materials</i> , 2021, 31, 2009549.	7.8	15
18	Carbon Microtube Aerogel Derived from Kapok Fiber: An Efficient and Recyclable Sorbent for Oils and Organic Solvents. <i>ACS Nano</i> , 2020, 14, 595-602.	7.3	104

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19	A Tandem 0D/2D/2D NbS ₂ Quantum Dot/Nb ₂ O ₅ Nanosheet/g-C ₃ N ₄ Flake System with Spatial Charge Transfer Cascades for Boosting Photocatalytic Hydrogen Evolution. <i>Small</i> , 2020, 16, e2003302.	5.2	40
20	Color-Recognizing Si-Based Photonic Synapse for Artificial Visual System. <i>Advanced Intelligent Systems</i> , 2020, 2, 2000107.	3.3	21
21	Ferroelectric-field accelerated charge transfer in 2D CuInP ₂ S ₆ heterostructure for enhanced photocatalytic H ₂ evolution. <i>Nano Energy</i> , 2020, 76, 104972.	8.2	84
22	Synthesis of Co-Doped MoS ₂ Monolayers with Enhanced Valley Splitting. <i>Advanced Materials</i> , 2020, 32, e1906536.	11.1	84
23	Toward 2D Magnets in the (MnBi ₂ Te ₄)(Bi ₂ Te ₃) _n Bulk Crystal. <i>Advanced Materials</i> , 2020, 32, e2001815.	11.1	45
24	Ultrathin Ruddlesden-Popper Perovskite Heterojunction for Sensitive Photodetection. <i>Small</i> , 2019, 15, e1902890.	5.2	56
25	Van der Waals negative capacitance transistors. <i>Nature Communications</i> , 2019, 10, 3037.	5.8	144
26	Self-gating in semiconductor electrocatalysis. <i>Nature Materials</i> , 2019, 18, 1098-1104.	13.3	167
27	Epitaxial Synthesis of Monolayer PtSe ₂ Single Crystal on MoSe ₂ with Strong Interlayer Coupling. <i>ACS Nano</i> , 2019, 13, 10929-10938.	7.3	72
28	Origin of giant negative piezoelectricity in a layered van der Waals ferroelectric. <i>Science Advances</i> , 2019, 5, eaav3780.	4.7	157
29	Natural van der Waals heterostructural single crystals with both magnetic and topological properties. <i>Science Advances</i> , 2019, 5, eaax9989.	4.7	193
30	Ultrasensitive 2D Bi ₂ O ₂ Se Phototransistors on Silicon Substrates. <i>Advanced Materials</i> , 2019, 31, e1804945.	11.1	183
31	InSe monolayer: synthesis, structure and ultra-high second-harmonic generation. <i>2D Materials</i> , 2018, 5, 025019.	2.0	92
32	A library of atomically thin metal chalcogenides. <i>Nature</i> , 2018, 556, 355-359.	13.7	1,225
33	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
34	One-Step Synthesis of Metal/Semiconductor Heterostructure NbS ₂ /MoS ₂ . <i>Chemistry of Materials</i> , 2018, 30, 4001-4007.	3.2	85
35	Light-Tunable 1T-TaS ₂ Charge-Density-Wave Oscillators. <i>ACS Nano</i> , 2018, 12, 11203-11210.	7.3	51
36	In-Plane Ferroelectricity in Thin Flakes of Van der Waals Hybrid Perovskite. <i>Advanced Materials</i> , 2018, 30, e1803249.	11.1	76

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37	Production Methods of Van der Waals Heterostructures Based on Transition Metal Dichalcogenides. Crystals, 2018, 8, 35.	1.0	47
38	Morphology Engineering in Monolayer MoS ₂ /WS ₂ Lateral Heterostructures. Advanced Functional Materials, 2018, 28, 1801568.	7.8	67
39	Room-temperature electrically driven phase transition of two-dimensional 1T-TaS ₂ layers. Nanoscale, 2017, 9, 2436-2441.	2.8	19
40	Scalable Fabrication of Single Silicon Vacancy Defect Arrays in Silicon Carbide Using Focused Ion Beam. ACS Photonics, 2017, 4, 1054-1059.	3.2	55
41	High Mobility 2D Palladium Diselenide Field-Effect Transistors with Tunable Ambipolar Characteristics. Advanced Materials, 2017, 29, 1602969.	11.1	251
42	Electric Field Effect in Two-Dimensional Transition Metal Dichalcogenides. Advanced Functional Materials, 2017, 27, 1602404.	7.8	57
43	Zeeman splitting via spin-valley-layer coupling in bilayer MoTe ₂ . Nature Communications, 2017, 8, 802.	5.8	56
44	Giant Enhancement of Cathodoluminescence of Monolayer Transitional Metal Dichalcogenides Semiconductors. Nano Letters, 2017, 17, 6475-6480.	4.5	44
45	High-quality monolayer superconductor NbSe ₂ grown by chemical vapour deposition. Nature Communications, 2017, 8, 394.	5.8	290
46	Vacuum level dependent photoluminescence in chemical vapor deposition-grown monolayer MoS ₂ . Scientific Reports, 2017, 7, 16714.	1.6	27
47	Efficient Generation of an Array of Single Silicon-Vacancy Defects in Silicon Carbide. Physical Review Applied, 2017, 7, .	1.5	81
48	Large-Area and High-Quality 2D Transition Metal Telluride. Advanced Materials, 2017, 29, 1603471.	11.1	181
49	Metal-Semiconductor Phase Transition in WSe ₂ (1-x)Te _{2x} Monolayer. Advanced Materials, 2017, 29, 1603991.	11.1	123
50	MoS ₂ /Rubrene van der Waals Heterostructure: Toward Ambipolar Field-Effect Transistors and Inverter Circuits. Small, 2017, 13, 1602558.	5.2	40
51	Highly Sensitive Detection of Polarized Light Using Anisotropic 2D ReS ₂ . Advanced Functional Materials, 2016, 26, 1169-1177.	7.8	376
52	Controlled Growth and Reliable Thickness-Dependent Properties of Organic-Inorganic Perovskite Platelet Crystal. Advanced Functional Materials, 2016, 26, 5263-5270.	7.8	64
53	Fast Photoresponse from 1T Tin Diselenide Atomic Layers. Advanced Functional Materials, 2016, 26, 137-145.	7.8	150
54	2D Black Phosphorus/SrTiO ₃ -Based Programmable Photoconductive Switch. Advanced Materials, 2016, 28, 7768-7773.	11.1	57

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55	Room-temperature ferroelectricity in CuInP2S6 ultrathin flakes. Nature Communications, 2016, 7, 12357.	5.8	637
56	Photoresponse: Highly Sensitive Detection of Polarized Light Using Anisotropic 2D ReS ₂ (Adv. Funct. Mater. 8/2016). Advanced Functional Materials, 2016, 26, 1146-1146.	7.8	15
57	Optoelectronic properties of atomically thin ReSSe with weak interlayer coupling. Nanoscale, 2016, 8, 5826-5834.	2.8	32
58	Coupling and Interlayer Exciton in Twist-Stacked WS ₂ Bilayers. Advanced Optical Materials, 2015, 3, 1600-1605.	3.6	63
59	Van der Waals p-n Junction Based on an Organic-Inorganic Heterostructure. Advanced Functional Materials, 2015, 25, 5865-5871.	7.8	98
60	Chemical Vapor Deposition of High-Quality and Atomically Layered ReS ₂ . Small, 2015, 11, 5423-5429.	5.2	122
61	Controlled Synthesis of High-Quality Monolayered In ₂ Se ₃ via Physical Vapor Deposition. Nano Letters, 2015, 15, 6400-6405.	4.5	239