

Fu-Cai Liu

List of Publications by Year in descending order

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61
papers

6,845
citations

71061

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118793

62
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62
docs citations

62
times ranked

9338
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 ₂ . <i>Advanced Functional Materials</i> , 2016, 26, 1169-1177.	7.8	376
4	High-quality monolayer superconductor NbSe ₂ grown by chemical vapour deposition. <i>Nature Communications</i> , 2017, 8, 394.	5.8	290
5	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
6	High Mobility 2D Palladium Diselenide Field-Effect Transistors with Tunable Ambipolar Characteristics. <i>Advanced Materials</i> , 2017, 29, 1602969.	11.1	251
7	Controlled Synthesis of High-Quality Monolayered In ₂ Se ₃ via Physical Vapor Deposition. <i>Nano Letters</i> , 2015, 15, 6400-6405.	4.5	239
8	Natural van der Waals heterostructural single crystals with both magnetic and topological properties. <i>Science Advances</i> , 2019, 5, eaax9989.	4.7	193
9	Ultrasensitive 2D Bi ₂ O ₂ Se Phototransistors on Silicon Substrates. <i>Advanced Materials</i> , 2019, 31, e1804945.	11.1	183
10	Large-Area and High-Quality 2D Transition Metal Telluride. <i>Advanced Materials</i> , 2017, 29, 1603471.	11.1	181
11	Self-gating in semiconductor electrocatalysis. <i>Nature Materials</i> , 2019, 18, 1098-1104.	13.3	167
12	2D Material Based Synaptic Devices for Neuromorphic Computing. <i>Advanced Functional Materials</i> , 2021, 31, 2005443.	7.8	165
13	Origin of giant negative piezoelectricity in a layered van der Waals ferroelectric. <i>Science Advances</i> , 2019, 5, eaav3780.	4.7	157
14	Fast Photoresponse from 1T Tin Diselenide Atomic Layers. <i>Advanced Functional Materials</i> , 2016, 26, 137-145.	7.8	150
15	Van der Waals negative capacitance transistors. <i>Nature Communications</i> , 2019, 10, 3037.	5.8	144
16	Metal-Semiconductor Phase Transition in WSe ₂ (1-x)Te _{2x} Monolayer. <i>Advanced Materials</i> , 2017, 29, 1603991.	11.1	123
17	Chemical Vapor Deposition of High-Quality and Atomically Layered ReS ₂ . <i>Small</i> , 2015, 11, 5423-5429.	5.2	122
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	Van der Waals p-n Junction Based on an Organic-Inorganic Heterostructure. <i>Advanced Functional Materials</i> , 2015, 25, 5865-5871.	7.8	98
20	InSe monolayer: synthesis, structure and ultra-high second-harmonic generation. <i>2D Materials</i> , 2018, 5, 025019.	2.0	92
21	One-Step Synthesis of Metal/Semiconductor Heterostructure NbS ₂ /MoS ₂ . <i>Chemistry of Materials</i> , 2018, 30, 4001-4007.	3.2	85
22	Ferroelectric-field accelerated charge transfer in 2D CuInP2S6 heterostructure for enhanced photocatalytic H2 evolution. <i>Nano Energy</i> , 2020, 76, 104972.	8.2	84
23	Synthesis of Co-Doped MoS ₂ Monolayers with Enhanced Valley Splitting. <i>Advanced Materials</i> , 2020, 32, e1906536.	11.1	84
24	Efficient Generation of an Array of Single Silicon-Vacancy Defects in Silicon Carbide. <i>Physical Review Applied</i> , 2017, 7, .	1.5	81
25	In-Plane Ferroelectricity in Thin Flakes of Van der Waals Hybrid Perovskite. <i>Advanced Materials</i> , 2018, 30, e1803249.	11.1	76
26	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
27	Morphology Engineering in Monolayer MoS ₂ -WS ₂ Lateral Heterostructures. <i>Advanced Functional Materials</i> , 2018, 28, 1801568.	7.8	67
28	Controlled Growth and Reliable Thickness-Dependent Properties of Organic-Inorganic Perovskite Platelet Crystal. <i>Advanced Functional Materials</i> , 2016, 26, 5263-5270.	7.8	64
29	Coupling and Interlayer Exciton in Twist-Stacked WS ₂ Bilayers. <i>Advanced Optical Materials</i> , 2015, 3, 1600-1605.	3.6	63
30	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. <i>Nature Materials</i> , 2023, 22, 450-458.	13.3	62
31	2D Black Phosphorus/SrTiO ₃ -Based Programmable Photoconductive Switch. <i>Advanced Materials</i> , 2016, 28, 7768-7773.	11.1	57
32	Electric Field Effect in Two-Dimensional Transition Metal Dichalcogenides. <i>Advanced Functional Materials</i> , 2017, 27, 1602404.	7.8	57
33	Zeeman splitting via spin-valley-layer coupling in bilayer MoTe ₂ . <i>Nature Communications</i> , 2017, 8, 802.	5.8	56
34	Ultrathin Ruddlesden-Popper Perovskite Heterojunction for Sensitive Photodetection. <i>Small</i> , 2019, 15, e1902890.	5.2	56
35	Scalable Fabrication of Single Silicon Vacancy Defect Arrays in Silicon Carbide Using Focused Ion Beam. <i>ACS Photonics</i> , 2017, 4, 1054-1059.	3.2	55
36	Light-Tunable 1T-TaS ₂ Charge-Density-Wave Oscillators. <i>ACS Nano</i> , 2018, 12, 11203-11210.	7.3	51

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37	Recent progress in the synthesis of novel two-dimensional van der Waals materials. National Science Review, 2022, 9, nwab164.	4.6	50
38	Production Methods of Van der Waals Heterostructures Based on Transition Metal Dichalcogenides. Crystals, 2018, 8, 35.	1.0	47
39	Mimicking Neuroplasticity via Ion Migration in van der Waals Layered Copper Indium Thiophosphate. Advanced Materials, 2022, 34, e2104676.	11.1	46
40	Toward 2D Magnets in the (MnBi ₂ Te ₄)(Bi ₂ Te ₃) _n Bulk Crystal. Advanced Materials, 2020, 32, e2001815.	11.1	45
41	Nanostructured Materials and Architectures for Advanced Optoelectronic Synaptic Devices. Advanced Functional Materials, 2022, 32, .	7.8	45
42	Giant Enhancement of Cathodoluminescence of Monolayer Transitional Metal Dichalcogenides Semiconductors. Nano Letters, 2017, 17, 6475-6480.	4.5	44
43	MoS ₂ /Rubrene van der Waals Heterostructure: Toward Ambipolar Field-Effect Transistors and Inverter Circuits. Small, 2017, 13, 1602558.	5.2	40
44	A Tandem OD/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. Small, 2020, 16, e2003302.	5.2	40
45	2D PtS nanorectangles/g-C ₃ N ₄ nanosheets with a metal sulfide-support interaction effect for high-efficiency photocatalytic H ₂ evolution. Materials Horizons, 2021, 8, 612-618.	6.4	34
46	Optoelectronic properties of atomically thin ReSSe with weak interlayer coupling. Nanoscale, 2016, 8, 5826-5834.	2.8	32
47	Vacuum level dependent photoluminescence in chemical vapor deposition-grown monolayer MoS ₂ . Scientific Reports, 2017, 7, 16714.	1.6	27
48	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. Chinese Chemical Letters, 2021, 32, 3128-3132.	4.8	23
49	Color-Recognizing Si-Based Photonic Synapse for Artificial Visual System. Advanced Intelligent Systems, 2020, 2, 2000107.	3.3	21
50	Room-temperature electrically driven phase transition of two-dimensional 1T-TaS ₂ layers. Nanoscale, 2017, 9, 2436-2441.	2.8	19
51	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
52	Direct Laser Patterning of a 2D WSe ₂ Logic Circuit. Advanced Functional Materials, 2021, 31, 2009549.	7.8	15
53	Sea-urchin-like ReS ₂ nanosheets with charge edge-collection effect as a novel cocatalyst for high-efficiency photocatalytic H ₂ evolution. Chinese Chemical Letters, 2022, 33, 943-947.	4.8	14
54	A Modified SiO ₂ -Based Memristor with Reliable Switching and Multifunctional Synaptic Behaviors. Journal of Physical Chemistry Letters, 2022, 13, 884-893.	2.1	14

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55	Emerging Phases of Layered Metal Chalcogenides. <i>Small</i> , 2022, 18, e2105215.	5.2	12
56	Solid-Ionic Memory in a van der Waals Heterostructure. <i>ACS Nano</i> , 2022, 16, 221-231.	7.3	6
57	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
58	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
59	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
60	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
61	Synaptic Devices: 2D Material Based Synaptic Devices for Neuromorphic Computing (<i>Adv. Funct. Mater.</i>) Tj ETQq1 1 0.784314 rgBT / Ov 7.8 2	7.8	2