

# Jun He

## List of Publications by Year in descending order

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102  
papers

9,582  
citations

36203

51  
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37111

96  
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102  
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102  
docs citations

102  
times ranked

11862  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Performance Memristors Based on Ultrathin 2D Copper Chalcogenides. <i>Advanced Materials</i> , 2022, 34, e2108313.	11.1	45
2	Nonvolatile reconfigurable broadband photodiodes based on BP/In <sub>2</sub> Se <sub>3</sub> ferroelectric junctions. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	21
3	Intercalated Gold Nanoparticle in 2D Palladium Nanosheet Avoiding CO Poisoning for Formate Production under a Wide Potential Window. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 10344-10352.	4.0	5
4	High-performance ultraviolet photodetectors based on 2D layered In <sub>4</sub> /3P <sub>2</sub> Se <sub>6</sub> nanoflakes. <i>Applied Physics Letters</i> , 2022, 120, .	1.5	7
5	A Ferroelectric Heterostructure for Highly Enhanced Short-Circuit Current Density and Self-Powered Photodetection. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	17
6	Controllable Synthesis Quadratic-Dependent Unsaturated Magnetoresistance of Two-Dimensional Nonlayered FeS <sub>8</sub> with Robust Environmental Stability. <i>ACS Nano</i> , 2022, 16, 8301-8308.	7.3	12
7	Functional annotation of creeping bentgrass protein sequences based on convolutional neural network. <i>BMC Plant Biology</i> , 2022, 22, 227.	1.6	0
8	Van der waals epitaxial growth of two-dimensional PbSe and its high-performance heterostructure devices. <i>Science Bulletin</i> , 2022, .	4.3	9
9	Few-layered CuInP <sub>2</sub> S <sub>6</sub> nanosheet with sulfur vacancy boosting photocatalytic hydrogen evolution. <i>CrystEngComm</i> , 2021, 23, 591-598.	1.3	25
10	Elimination of Interlayer Potential Barriers of Chromium Sulfide by Self-Intercalation for Enhanced Hydrogen Evolution Reaction. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 13055-13062.	4.0	17
11	Recent Advances in 2D Materials for Photodetectors. <i>Advanced Electronic Materials</i> , 2021, 7, 2001125.	2.6	89
12	Nonlayered Tin Thiohypodiphosphate Nanosheets: Controllable Growth and Solar-Light-Driven Water Splitting. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 13392-13399.	4.0	15
13	Modulation of Negative Differential Resistance in Black Phosphorus Transistors. <i>Advanced Materials</i> , 2021, 33, e2008329.	11.1	18
14	Self-intercalated two-dimensional magnetic semiconductor V <sub>8</sub> (S <sub>1-x</sub> Se <sub>x</sub> ) <sub>15</sub> . <i>Applied Physics Letters</i> , 2021, 118, 221903.	1.5	2
15	Emerging 2D Memory Devices for In-Memory Computing. <i>Advanced Materials</i> , 2021, 33, e2007081.	11.1	92
16	Using ferroelectric polarization to regulate and preserve the valley polarization in a HfN <sub>2</sub> /monolayer heterotrilaier. <i>Physical Review B</i> , 2021, 103, .	1.4	16
17	High Carrier Separation Efficiency in Morphology-Controlled BiOBr/C Schottky Junctions for Photocatalytic Overall Water Splitting. <i>ACS Nano</i> , 2021, 15, 13209-13219.	7.3	72
18	Hidden and doubly heavy molecular states from interactions $D^*_{(s)}\{ar{D}\}^*_{(s)}$ and $D^*_{(s)}\{ar{B}\}^*_{(s)}$ and $D^*_{(s)}\{ar{B}\}^*_{(s)}$ . <i>European Physical Journal C</i> , 2021, 81, 1.	1.4	24

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19	Recent progress on emergent two-dimensional magnets and heterostructures. <i>Nanotechnology</i> , 2021, 32, 472001.	1.3	25
20	Reconfigurable photovoltaic effect for optoelectronic artificial synapse based on ferroelectric p-n junction. <i>Nano Research</i> , 2021, 14, 4328-4335.	5.8	33
21	Logic and in-memory computing achieved in a single ferroelectric semiconductor transistor. <i>Science Bulletin</i> , 2021, 66, 2288-2296.	4.3	23
22	Controlled synthesis and Raman study of a 2D antiferromagnetic P-type semiconductor: $\hat{\pm}$ -MnSe. <i>Nanoscale</i> , 2021, 13, 6953-6964.	2.8	20
23	Phase-Tunable Synthesis and Etching-Free Transfer of Two-Dimensional Magnetic FeTe. <i>ACS Nano</i> , 2021, 15, 19089-19097.	7.3	18
24	Defect-mediated ferromagnetism in correlated two-dimensional transition metal phosphorus trisulfides. <i>Science Advances</i> , 2021, 7, eabj4086.	4.7	35
25	Two-Dimensional Palladium Nanosheet Intercalated with Gold Nanoparticles for Plasmon-Enhanced Electrocatalysis. <i>ACS Catalysis</i> , 2021, 11, 13721-13732.	5.5	21
26	Bridging the van der Waals Interface for Advanced Optoelectronic Devices. <i>Advanced Materials</i> , 2020, 32, e1906874.	11.1	31
27	Speeding protons with metal vacancies. <i>Science</i> , 2020, 370, 525-526.	6.0	3
28	Two-Dimensional Unipolar Memristors with Logic and Memory Functions. <i>Nano Letters</i> , 2020, 20, 4144-4152.	4.5	50
29	Gate-Coupling-Enabled Robust Hysteresis for Nonvolatile Memory and Programmable Rectifier in Van der Waals Ferroelectric Heterojunctions. <i>Advanced Materials</i> , 2020, 32, e1908040.	11.1	84
30	Tunable Room-Temperature Ferromagnetism in Two-Dimensional $\text{Cr}_2\text{Te}_3$ . <i>Nano Letters</i> , 2020, 20, 3130-3139.	4.5	175
31	Subthermionic field-effect transistors with sub-5Ånm gate lengths based on van der Waals ferroelectric heterostructures. <i>Science Bulletin</i> , 2020, 65, 1444-1450.	4.3	17
32	Recent Progress in CVD Growth of 2D Transition Metal Dichalcogenides and Related Heterostructures. <i>Advanced Materials</i> , 2019, 31, e1901694.	11.1	250
33	Valleytronics in transition metal dichalcogenides materials. <i>Nano Research</i> , 2019, 12, 2695-2711.	5.8	155
34	Growth and Raman Scattering Investigation of a New 2D MOX Material: YbOCl. <i>Advanced Functional Materials</i> , 2019, 29, 1903017.	7.8	21
35	Synthesis and Optoelectronic Applications of a Stable p-Type 2D Material: $\hat{\pm}$ -MnS. <i>ACS Nano</i> , 2019, 13, 12662-12670.	7.3	54
36	Multibit Optoelectronic Memory in Top-Floating-Gated van der Waals Heterostructures. <i>Advanced Functional Materials</i> , 2019, 29, 1902890.	7.8	69

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37	Newly developed two-dimensional materials for efficient photocatalytic hydrogen evolution. <i>Science Bulletin</i> , 2019, 64, 958-960.	4.3	4
38	Robust trap effect in transition metal dichalcogenides for advanced multifunctional devices. <i>Nature Communications</i> , 2019, 10, 4133.	5.8	39
39	2D electric-double-layer phototransistor for photoelectronic and spatiotemporal hybrid neuromorphic integration. <i>Nanoscale</i> , 2019, 11, 1360-1369.	2.8	195
40	Hierarchically heterostructured metal hydr(oxy)oxides for efficient overall water splitting. <i>Nanoscale</i> , 2019, 11, 11736-11743.	2.8	14
41	Anti-Ambipolar Transport with Large Electrical Modulation in 2D Heterostructured Devices. <i>Advanced Materials</i> , 2019, 31, e1901144.	11.1	28
42	Oriented layered Bi <sub>2</sub> O <sub>2</sub> Se nanowire arrays for ultrasensitive photodetectors. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	31
43	Controlling Injection Barriers for Ambipolar 2D Semiconductors via Quasi-van der Waals Contacts. <i>Advanced Science</i> , 2019, 6, 1801841.	5.6	17
44	Van der Waals integration of 2D atomic crystals for advanced multifunctional devices. <i>Science Bulletin</i> , 2019, 64, 1033-1035.	4.3	6
45	Ultrathin Magnetic 2D Single-Crystal CrSe. <i>Advanced Materials</i> , 2019, 31, e1900056.	11.1	154
46	Sub-millimeter-Scale Growth of One-Unit-Cell-Thick Ferrimagnetic Cr <sub>2</sub> S <sub>3</sub> Nanosheets. <i>Nano Letters</i> , 2019, 19, 2154-2161.	4.5	110
47	A unipolar nonvolatile resistive switching behavior in a layered transition metal oxide. <i>Nanoscale</i> , 2019, 11, 20497-20506.	2.8	24
48	Gapless van der Waals Heterostructures for Infrared Optoelectronic Devices. <i>ACS Nano</i> , 2019, 13, 14519-14528.	7.3	24
49	Van der Waals Heterostructure Devices with Dynamically Controlled Conduction Polarity and Multifunctionality. <i>Advanced Functional Materials</i> , 2019, 29, 1804897.	7.8	23
50	Earth abundant materials beyond transition metal dichalcogenides: A focus on electrocatalyzing hydrogen evolution reaction. <i>Nano Energy</i> , 2019, 58, 244-276.	8.2	298
51	Uncovering the Conduction Behavior of van der Waals Ambipolar Semiconductors. <i>Advanced Materials</i> , 2019, 31, e1805317.	11.1	19
52	Heterostructures Based on 2D Materials: A Versatile Platform for Efficient Catalysis. <i>Advanced Materials</i> , 2019, 31, e1804828.	11.1	142
53	High Crystal Quality 2D Manganese Phosphorus Trichalcogenide Nanosheets and their Photocatalytic Activity. <i>Advanced Functional Materials</i> , 2018, 28, 1800548.	7.8	116
54	Nonvolatile infrared memory in MoS <sub>2</sub> /PbS van der Waals heterostructures. <i>Science Advances</i> , 2018, 4, eaap7916.	4.7	161



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73	Efficient Photocatalytic Hydrogen Evolution via Band Alignment Tailoring: Controllable Transition from Type-II to Type-III. <i>Small</i> , 2017, 13, 1702163.	5.2	47
74	High-Performance Ultraviolet Photodetector Based on a Few-Layered 2D NiPS <sub>3</sub> Nanosheet. <i>Advanced Functional Materials</i> , 2017, 27, 1701342.	7.8	220
75	Ultrathin Single-Crystalline CdTe Nanosheets Realized via Van der Waals Epitaxy. <i>Advanced Materials</i> , 2017, 29, 1703122.	11.1	118
76	Two-Dimensional Non-Layered Materials: Synthesis, Properties and Applications. <i>Advanced Functional Materials</i> , 2017, 27, 1603254.	7.8	161
77	Configuration-Dependent Electrically Tunable Van der Waals Heterostructures Based on MoTe <sub>2</sub> /MoS <sub>2</sub> . <i>Advanced Functional Materials</i> , 2016, 26, 5499-5506.	7.8	95
78	Engineering the Electronic Structure of 2D WS <sub>2</sub> Nanosheets Using Co Incorporation as Co <sub>x</sub> W <sub>(1-x)</sub> S <sub>2</sub> for Conspicuously Enhanced Hydrogen Generation. <i>Small</i> , 2016, 12, 3802-3809.	5.2	60
79	High-Performance Phototransistor of Epitaxial PbS Nanoplate-Graphene Heterostructure with Edge Contact. <i>Advanced Materials</i> , 2016, 28, 6497-6503.	11.1	51
80	Selenium-Enriched Nickel Selenide Nanosheets as a Robust Electrocatalyst for Hydrogen Generation. <i>Angewandte Chemie</i> , 2016, 128, 7033-7038.	1.6	65
81	Ultrahigh sensitive MoTe <sub>2</sub> phototransistors driven by carrier tunneling. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	95
82	Strong electrically tunable MoTe <sub>2</sub> /graphene van der Waals heterostructures for high-performance electronic and optoelectronic devices. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	51
83	Ultrafast and ultrasensitive phototransistors based on few-layered HfSe <sub>2</sub> . <i>Applied Physics Letters</i> , 2016, 109, .	1.5	60
84	Carbon dots decorated vertical SnS <sub>2</sub> nanosheets for efficient photocatalytic oxygen evolution. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	20
85	Integrated High-Performance Infrared Phototransistor Arrays Composed of Nonlayered PbS-MoS <sub>2</sub> Heterostructures with Edge Contacts. <i>Nano Letters</i> , 2016, 16, 6437-6444.	4.5	98
86	High-Crystalline 2D Layered PbI <sub>2</sub> with Ultrasmooth Surface: Liquid-Phase Synthesis and Application of High-Speed Photon Detection. <i>Advanced Electronic Materials</i> , 2016, 2, 1600291.	2.6	98
87	Epitaxial 2D PbS Nanoplates Arrays with Highly Efficient Infrared Response. <i>Advanced Materials</i> , 2016, 28, 8051-8057.	11.1	93
88	Rational Design of Ultralarge Pb <sub>1-x</sub> Sn <sub>x</sub> Te Nanoplates for Exploring Crystalline Symmetry-Protected Topological Transport. <i>Advanced Materials</i> , 2016, 28, 617-623.	11.1	38
89	Electrostatically tunable lateral MoTe <sub>2</sub> p-n junction for use in high-performance optoelectronics. <i>Nanoscale</i> , 2016, 8, 13245-13250.	2.8	49
90	Enhanced Electrochemical H <sub>2</sub> Evolution by Few-Layered Metallic WS <sub>2</sub> (1-x)Se <sub>2x</sub> Nanoribbons. <i>Advanced Functional Materials</i> , 2015, 25, 6077-6083.	7.8	111

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91	Low-Dimensional Topological Crystalline Insulators. <i>Small</i> , 2015, 11, 4613-4624.	5.2	24
92	van der Waals Epitaxial Ultrathin Two-Dimensional Nonlayered Semiconductor for Highly Efficient Flexible Optoelectronic Devices. <i>Nano Letters</i> , 2015, 15, 1183-1189.	4.5	127
93	A vertical-oriented WS <sub>2</sub> nanosheet sensitized by graphene: an advanced electrocatalyst for hydrogen evolution reaction. <i>Nanoscale</i> , 2015, 7, 14760-14765.	2.8	88
94	Highly sensitive and fast phototransistor based on large size CVD-grown SnS <sub>2</sub> nanosheets. <i>Nanoscale</i> , 2015, 7, 14093-14099.	2.8	126
95	High-performance flexible photodetectors based on GaTe nanosheets. <i>Nanoscale</i> , 2015, 7, 7252-7258.	2.8	126
96	Recent advances in transition-metal dichalcogenide based nanomaterials for water splitting. <i>Nanoscale</i> , 2015, 7, 19764-19788.	2.8	327
97	Tunable GaTe-MoS <sub>2</sub> van der Waals p-n Junctions with Novel Optoelectronic Performance. <i>Nano Letters</i> , 2015, 15, 7558-7566.	4.5	369
98	Component-Controllable WS <sub>2</sub> (1-x)/Se <sub>2</sub> (x) Nanotubes for Efficient Hydrogen Evolution Reaction. <i>ACS Nano</i> , 2014, 8, 8468-8476.	7.3	317
99	Van der Waals Epitaxy and Photoresponse of Hexagonal Tellurium Nanoplates on Flexible Mica Sheets. <i>ACS Nano</i> , 2014, 8, 7497-7505.	7.3	259
100	Role of Ga Vacancy on a Multilayer GaTe Phototransistor. <i>ACS Nano</i> , 2014, 8, 4859-4865.	7.3	162
101	Visible light driven type II heterostructures and their enhanced photocatalysis properties: a review. <i>Nanoscale</i> , 2013, 5, 8326.	2.8	950
102	Low-Dimensional Te-Based Nanostructures. <i>Advanced Materials</i> , 2013, 25, 3915-3921.	11.1	31