

Feng Wang

List of Publications by Year in descending order

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papers

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66234

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docs citations

66
times ranked

18856
citing authors

#	ARTICLE	IF	CITATIONS
1	Emerging Photoluminescence in Monolayer MoS ₂ . Nano Letters, 2010, 10, 1271-1275.	4.5	7,897
2	Ultrafast charge transfer in atomically thin MoS ₂ /WS ₂ heterostructures. Nature Nanotechnology, 2014, 9, 682-686.	15.6	1,838
3	Giant bandgap renormalization and excitonic effects in a monolayer transition metal dichalcogenide semiconductor. Nature Materials, 2014, 13, 1091-1095.	13.3	1,470
4	Tunable GaTe-MoS ₂ van der Waals p-n Junctions with Novel Optoelectronic Performance. Nano Letters, 2015, 15, 7558-7566.	4.5	369
5	Recent Progress in CVD Growth of 2D Transition Metal Dichalcogenides and Related Heterostructures. Advanced Materials, 2019, 31, e1901694.	11.1	250
6	High-Performance Ultraviolet Photodetector Based on a Few-Layered 2D NiPS ₃ Nanosheet. Advanced Functional Materials, 2017, 27, 1701342.	7.8	220
7	2D library beyond graphene and transition metal dichalcogenides: a focus on photodetection. Chemical Society Reviews, 2018, 47, 6296-6341.	18.7	207
8	High-performance, multifunctional devices based on asymmetric van der Waals heterostructures. Nature Electronics, 2018, 1, 356-361.	13.1	197
9	Ultrasensitive Phototransistors Based on Few-Layered HfS ₂ . Advanced Materials, 2015, 27, 7881-7887.	11.1	176
10	Sub-10 nm Nanopattern Architecture for 2D Material Field-Effect Transistors. Nano Letters, 2017, 17, 1065-1070.	4.5	172
11	Two-Dimensional Nonlayered Materials: Synthesis, Properties and Applications. Advanced Functional Materials, 2017, 27, 1603254.	7.8	161
12	Nonvolatile infrared memory in MoS ₂ /PbS van der Waals heterostructures. Science Advances, 2018, 4, eaap7916.	4.7	161
13	Ultrathin Magnetic 2D Single-Crystal CrSe. Advanced Materials, 2019, 31, e1900056.	11.1	154
14	Synthesis, properties and applications of 2D layered M ^{III} X ^{VI} (M = Ga, In; X = S, Se, Te) quantum dot/graphene heterostructure for high-performance photodetectors. Nano Letters, 2018, 18, 1425-1431.	2.8	142
15	van der Waals Epitaxial Ultrathin Two-Dimensional Nonlayered Semiconductor for Highly Efficient Flexible Optoelectronic Devices. Nano Letters, 2015, 15, 1183-1189.	4.5	127
16	Highly sensitive and fast phototransistor based on large size CVD-grown SnS ₂ nanosheets. Nanoscale, 2015, 7, 14093-14099.	2.8	126
17	Designing the shape evolution of SnSe ₂ nanosheets and their optoelectronic properties. Nanoscale, 2015, 7, 17375-17380.	2.8	121
18	Ultrathin Single-Crystalline CdTe Nanosheets Realized via Van der Waals Epitaxy. Advanced Materials, 2017, 29, 1703122.	11.1	118

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19	Strain-Modulated Bandgap and Piezo-Resistive Effect in Black Phosphorus Field-Effect Transistors. Nano Letters, 2017, 17, 6097-6103.	4.5	117
20	Enhanced Electrochemical H ₂ Evolution by Few-Layered Metallic WS ₂ /Se Nanoribbons. Advanced Functional Materials, 2015, 25, 6077-6083.	7.8	111
21	Sub-millimeter-Scale Growth of One-Unit-Cell-Thick Ferrimagnetic Cr ₂ S ₃ Nanosheets. Nano Letters, 2019, 19, 2154-2161.	4.5	110
22	Edge-Epitaxial Growth of 2D NbS ₂ /WS ₂ Lateral Metal-Semiconductor Heterostructures. Advanced Materials, 2018, 30, e1803665.	11.1	109
23	Synthesis, properties and applications of 2D non-graphene materials. Nanotechnology, 2015, 26, 292001.	1.3	101
24	Integrated High-Performance Infrared Phototransistor Arrays Composed of Nonlayered PbS/MoS ₂ Heterostructures with Edge Contacts. Nano Letters, 2016, 16, 6437-6444.	4.5	98
25	Van der Waals Epitaxial Growth of Atomic Layered HfS ₂ Crystals for Ultrasensitive Near-Infrared Phototransistors. Advanced Materials, 2017, 29, 1700439.	11.1	96
26	Configuration-Dependent Electrically Tunable Van der Waals Heterostructures Based on MoTe ₂ /MoS ₂ . Advanced Functional Materials, 2016, 26, 5499-5506.	7.8	95
27	Ultrahigh sensitive MoTe ₂ phototransistors driven by carrier tunneling. Applied Physics Letters, 2016, 108, .	1.5	95
28	Epitaxial 2D PbS Nanoplates Arrays with Highly Efficient Infrared Response. Advanced Materials, 2016, 28, 8051-8057.	11.1	93
29	Two-dimensional metal phosphorus trisulfide nanosheet with solar hydrogen-evolving activity. Nano Energy, 2017, 40, 673-680.	8.2	91
30	Gate-Coupling-Enabled Robust Hysteresis for Nonvolatile Memory and Programmable Rectifier in Van der Waals Ferroelectric Heterojunctions. Advanced Materials, 2020, 32, e1908040.	11.1	84
31	Infrared-Sensitive Memory Based on Direct-Grown MoS ₂ "Upconversion" Nanoparticle Heterostructure. Advanced Materials, 2018, 30, e1803563.	11.1	79
32	WSe ₂ /GeSe heterojunction photodiode with giant gate tunability. Nano Energy, 2018, 49, 103-108.	8.2	73
33	Multibit Optoelectronic Memory in Top-Floating-Gated van der Waals Heterostructures. Advanced Functional Materials, 2019, 29, 1902890.	7.8	69
34	Progress on Electronic and Optoelectronic Devices of 2D Layered Semiconducting Materials. Small, 2017, 13, 1604298.	5.2	65
35	Ultrafast and ultrasensitive phototransistors based on few-layered HfSe ₂ . Applied Physics Letters, 2016, 109, .	1.5	60
36	Toward High-Performance Top-Gate Ultrathin HfS ₂ Field-Effect Transistors by Interface Engineering. Small, 2016, 12, 3106-3111.	5.2	55

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37	High-Performance Phototransistor of Epitaxial PbS Nanoplate-Graphene Heterostructure with Edge Contact. <i>Advanced Materials</i> , 2016, 28, 6497-6503.	11.1	51
38	Strong electrically tunable MoTe ₂ /graphene van der Waals heterostructures for high-performance electronic and optoelectronic devices. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	51
39	Two-Dimensional Unipolar Memristors with Logic and Memory Functions. <i>Nano Letters</i> , 2020, 20, 4144-4152.	4.5	50
40	Electrostatically tunable lateral MoTe ₂ p-n junction for use in high-performance optoelectronics. <i>Nanoscale</i> , 2016, 8, 13245-13250.	2.8	49
41	Multifunctional tunneling devices based on graphene/h-BN/MoSe ₂ van der Waals heterostructures. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	49
42	Sulfur vacancy activated field effect transistors based on ReS ₂ nanosheets. <i>Nanoscale</i> , 2015, 7, 15757-15762.	2.8	44
43	BN-Enabled Epitaxy of Pb _{1-x} Sn _x Se Nanoplates on SiO ₂ /Si for High-Performance Mid-Infrared Detection. <i>Small</i> , 2015, 11, 5388-5394.	5.2	41
44	Configuration-dependent anti-ambipolar van der Waals p-n heterostructures based on pentacene single crystal and MoS ₂ . <i>Nanoscale</i> , 2017, 9, 7519-7525.	2.8	40
45	Oriented Growth of Pb _{1-x} Sn _x Te Nanowire Arrays for Integration of Flexible Infrared Detectors. <i>Advanced Materials</i> , 2016, 28, 3596-3601.	11.1	39
46	Impact of Thickness on Contact Issues for Pinning Effect in Black Phosphorus Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2018, 28, 1801398.	7.8	39
47	Robust trap effect in transition metal dichalcogenides for advanced multifunctional devices. <i>Nature Communications</i> , 2019, 10, 4133.	5.8	39
48	Rational Design of Ultralarge Pb _{1-x} Sn _x Te Nanoplates for Exploring Crystalline Symmetry-Protected Topological Transport. <i>Advanced Materials</i> , 2016, 28, 617-623.	11.1	38
49	Reconfigurable photovoltaic effect for optoelectronic artificial synapse based on ferroelectric p-n junction. <i>Nano Research</i> , 2021, 14, 4328-4335.	5.8	33
50	Anti-Ambipolar Transport with Large Electrical Modulation in 2D Heterostructured Devices. <i>Advanced Materials</i> , 2019, 31, e1901144.	11.1	28
51	Strongly coupled van der Waals heterostructures for high-performance infrared phototransistor. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	28
52	Recent progress on emergent two-dimensional magnets and heterostructures. <i>Nanotechnology</i> , 2021, 32, 472001.	1.3	25
53	Low-Dimensional Topological Crystalline Insulators. <i>Small</i> , 2015, 11, 4613-4624.	5.2	24
54	A unipolar nonvolatile resistive switching behavior in a layered transition metal oxide. <i>Nanoscale</i> , 2019, 11, 20497-20506.	2.8	24

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55	Gapless van der Waals Heterostructures for Infrared Optoelectronic Devices. ACS Nano, 2019, 13, 14519-14528.	7.3	24
56	Van der Waals Heterostructure Devices with Dynamically Controlled Conduction Polarity and Multifunctionality. Advanced Functional Materials, 2019, 29, 1804897.	7.8	23
57	Ferroelectric-induced carrier modulation for ambipolar transition metal dichalcogenide transistors. Applied Physics Letters, 2017, 110, .	1.5	22
58	Controlled synthesis and Raman study of a 2D antiferromagnetic P-type semiconductor: 1T-MnSe . Nanoscale, 2021, 13, 6953-6964.	2.8	20
59	Uncovering the Conduction Behavior of van der Waals Ambipolar Semiconductors. Advanced Materials, 2019, 31, e1805317.	11.1	19
60	Controlling Injection Barriers for Ambipolar 2D Semiconductors via Quasi-van der Waals Contacts. Advanced Science, 2019, 6, 1801841.	5.6	17
61	Subthermionic field-effect transistors with sub-5 nm gate lengths based on van der Waals ferroelectric heterostructures. Science Bulletin, 2020, 65, 1444-1450.	4.3	17
62	A Ferroelectric p-n Heterostructure for Highly Enhanced Short-Circuit Current Density and Self-Powered Photodetection. Advanced Electronic Materials, 2022, 8, .	2.6	17
63	Ultrasensitive Ferroelectric Semiconductor Phototransistors for Photon-Level Detection. Advanced Functional Materials, 2022, 32, .	7.8	12
64	Short channel field-effect transistors from ultrathin GaTe nanosheets. Applied Physics Letters, 2015, 107, .	1.5	11
65	Van der Waals integration of 2D atomic crystals for advanced multifunctional devices. Science Bulletin, 2019, 64, 1033-1035.	4.3	6
66	Growth, Raman Scattering Investigation and Photodetector Properties of 2D SnP. Small, 2022, 18, e2108017.	5.2	5