Feng Wang

List of Publications by Year
in descending order

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66 papers	16,392 citations	66343 42 h-index	102487 66 g-index
66 all docs	66 docs citations	66 times ranked	18856 citing authors

#	Article	IF	Citations
1	Growth, Raman Scattering Investigation and Photodetector Properties of 2D SnP. Small, 2022, 18, e2108017.	10.0	5
2	A Ferroelectric pâ€“iâ€“n Heterostructure for Highly Enhanced Shortâ€Circuit Current Density and Selfâ€Powered Photodetection. Advanced Electronic Materials, 2022, 8, .	5.1	17
3	Ultrasensitive Ferroelectric Semiconductor Phototransistors for Photonâ€Level Detection. Advanced Functional Materials, 2022, 32, .	14.9	12
4	Recent progress on emergent two-dimensional magnets and heterostructures. Nanotechnology, 2021, 32, 472001.	2.6	25
5	Reconfigurable photovoltaic effect for optoelectronic artificial synapse based on ferroelectric p-n junction. Nano Research, 2021, 14, 4328-4335.	10.4	33
6	Controlled synthesis and Raman study of a 2D antiferromagnetic P-type semiconductor: Î±-MnSe. Nanoscale, 2021, 13, 6953-6964.	5.6	20
7	Two-Dimensional Unipolar Memristors with Logic and Memory Functions. Nano Letters, 2020, 20, 4144-4152.	9.1	50
8	Gateâ€Couplingâ€Enabled Robust Hysteresis for Nonvolatile Memory and Programmable Rectifier in Van der Waals Ferroelectric Heterojunctions. Advanced Materials, 2020, 32, e1908040.	21.0	84
9	Subthermionic field-effect transistors with sub-5Ânm gate lengths based on van der Waals ferroelectric heterostructures. Science Bulletin, 2020, 65, 1444-1450.	9.0	17
10	Recent Progress in CVD Growth of 2D Transition Metal Dichalcogenides and Related Heterostructures. Advanced Materials, 2019, 31, e1901694.	21.0	250
11	Multibit Optoelectronic Memory in Topâ€Floatingâ€Gated van der Waals Heterostructures. Advanced Functional Materials, 2019, 29, 1902890.	14.9	69
12	Robust trap effect in transition metal dichalcogenides for advanced multifunctional devices. Nature Communications, 2019, 10, 4133.	12.8	39
13	Antiâ€Ambipolar Transport with Large Electrical Modulation in 2D Heterostructured Devices. Advanced Materials, 2019, 31, e1901144.	21.0	28
14	Controlling Injection Barriers for Ambipolar 2D Semiconductors via Quasiâ€van der Waals Contacts. Advanced Science, 2019, 6, 1801841.	11.2	17
15	Van der Waals integration of 2D atomic crystals for advanced multifunctional devices. Science Bulletin, 2019, 64, 1033-1035.	9.0	6
16	Ultrathin Magnetic 2D Singleâ€Crystal CrSe. Advanced Materials, 2019, 31, e1900056.	21.0	154
17	Strongly coupled van der Waals heterostructures for high-performance infrared phototransistor. Applied Physics Letters, 2019, 114, .	3.3	28
18	Sub-millimeter-Scale Growth of One-Unit-Cell-Thick Ferrimagnetic Cr₂S₃ Nanosheets. Nano Letters, 2019, 19, 2154-2161.	9.1	110

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19	A unipolar nonvolatile resistive switching behavior in a layered transition metal oxide. Nanoscale, 2019, 11, 20497-20506.	5.6	24
20	Gapless van der Waals Heterostructures for Infrared Optoelectronic Devices. ACS Nano, 2019, 13, 14519-14528.	14.6	24
21	Van der Waals Heterostructure Devices with Dynamically Controlled Conduction Polarity and Multifunctionality. Advanced Functional Materials, 2019, 29, 1804897.	14.9	23
22	Uncovering the Conduction Behavior of van der Waals Ambipolar Semiconductors. Advanced Materials, 2019, 31, e1805317.	21.0	19
23	Nonvolatile infrared memory in MoS ₂ /PbS van der Waals heterostructures. Science Advances, 2018, 4, eaap7916.	10.3	161
24	WSe2/GeSe heterojunction photodiode with giant gate tunability. Nano Energy, 2018, 49, 103-108.	16.0	73
25	Infraredâ€Sensitive Memory Based on Directâ€Grown MoS₂â€“Upconversionâ€Nanoparticle Heterostructure. Advanced Materials, 2018, 30, e1803563.	21.0	79
26	2D library beyond graphene and transition metal dichalcogenides: a focus on photodetection. Chemical Society Reviews, 2018, 47, 6296-6341.	38.1	207
27	Impact of Thickness on Contact Issues for Pinning Effect in Black Phosphorus Fieldâ€Effect Transistors. Advanced Functional Materials, 2018, 28, 1801398.	14.9	39
28	Edgeâ€Epitaxial Growth of 2D NbS₂â€WS₂ Lateral Metalâ€Semiconductor Heterostructures. Advanced Materials, 2018, 30, e1803665.	21.0	109
29	High-performance, multifunctional devices based on asymmetric van der Waals heterostructures. Nature Electronics, 2018, 1, 356-361.	26.0	197
30	Sub-10 nm Nanopattern Architecture for 2D Material Field-Effect Transistors. Nano Letters, 2017, 17, 1065-1070.	9.1	172
31	Configuration-dependent anti-ambipolar van der Waals pâ€“n heterostructures based on pentacene single crystal and MoS₂. Nanoscale, 2017, 9, 7519-7525.	5.6	40
32	Multifunctional tunneling devices based on graphene/h-BN/MoSe2 van der Waals heterostructures. Applied Physics Letters, 2017, 110, .	3.3	49
33	Van der Waals Epitaxial Growth of Atomic Layered HfS₂ Crystals for Ultrasensitive Nearâ€Infrared Phototransistors. Advanced Materials, 2017, 29, 1700439.	21.0	96
34	Progress on Electronic and Optoelectronic Devices of 2D Layered Semiconducting Materials. Small, 2017, 13, 1604298.	10.0	65
35	Ferroelectric-induced carrier modulation for ambipolar transition metal dichalcogenide transistors. Applied Physics Letters, 2017, 110, .	3.3	22
36	Strain-Modulated Bandgap and Piezo-Resistive Effect in Black Phosphorus Field-Effect Transistors. Nano Letters, 2017, 17, 6097-6103.	9.1	117

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37	Two-dimensional metal phosphorus trisulfide nanosheet with solar hydrogen-evolving activity. Nano Energy, 2017, 40, 673-680.	16.0	91
38	Highâ€Performance Ultraviolet Photodetector Based on a Fewâ€Layered 2D NiPS₃ Nanosheet. Advanced Functional Materials, 2017, 27, 1701342.	14.9	220
39	Ultrathin Singleâ€Crystalline CdTe Nanosheets Realized via Van der Waals Epitaxy. Advanced Materials, 2017, 29, 1703122.	21.0	118
40	Twoâ€Dimensional Nonâ€Layered Materials: Synthesis, Properties and Applications. Advanced Functional Materials, 2017, 27, 1603254.	14.9	161
41	Configurationâ€Dependent Electrically Tunable Van der Waals Heterostructures Based on MoTe₂/MoS₂. Advanced Functional Materials, 2016, 26, 5499-5506.	14.9	95
42	Highâ€Performance Phototransistor of Epitaxial PbS Nanoplateâ€Graphene Heterostructure with Edge Contact. Advanced Materials, 2016, 28, 6497-6503.	21.0	51
43	Ultrahigh sensitive MoTe2 phototransistors driven by carrier tunneling. Applied Physics Letters, 2016, 108, .	3.3	95
44	Strong electrically tunable MoTe2/graphene van der Waals heterostructures for high-performance electronic and optoelectronic devices. Applied Physics Letters, 2016, 109, .	3.3	51
45	Ultrafast and ultrasensitive phototransistors based on few-layered HfSe2. Applied Physics Letters, 2016, 109, .	3.3	60
46	Integrated High-Performance Infrared Phototransistor Arrays Composed of Nonlayered PbSâ€“MoS₂ Heterostructures with Edge Contacts. Nano Letters, 2016, 16, 6437-6444.	9.1	98
47	Synthesis, properties and applications of 2D layered M^{III}X^{VI}(M = Ga, In; X = S,) Tj ETQq1 1 0.784314 rgBT /Ov	5.6	142
48	Epitaxial 2D PbS Nanoplates Arrays with Highly Efficient Infrared Response. Advanced Materials, 2016, 28, 8051-8057.	21.0	93
49	Toward Highâ€Performance Topâ€Gate Ultrathin HfS₂ Fieldâ€Effect Transistors by Interface Engineering. Small, 2016, 12, 3106-3111.	10.0	55
50	Rational Design of Ultralarge Pb_{1â^'x}Sn_xTe Nanoplates for Exploring Crystalline Symmetryâ€Protected Topological Transport. Advanced Materials, 2016, 28, 617-623.	21.0	38
51	Oriented Growth of Pb_{1â^'}_xSn_xTe Nanowire Arrays for Integration of Flexible Infrared Detectors. Advanced Materials, 2016, 28, 3596-3601.	21.0	39
52	Electrostatically tunable lateral MoTe₂pâ€“n junction for use in high-performance optoelectronics. Nanoscale, 2016, 8, 13245-13250.	5.6	49
53	Short channel field-effect transistors from ultrathin GaTe nanosheets. Applied Physics Letters, 2015, 107, .	3.3	11
54	BNâ€Enabled Epitaxy of Pb_{1â€“x}Sn_xSe Nanoplates on SiO₂/Si for Highâ€Performance Midâ€Infrared Detection. Small, 2015, 11, 5388-5394.	10.0	41

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55	Enhanced Electrochemical H₂ Evolution by Fewâ€Layered Metallic WS_{2(1â”x)}Se_{2x} Nanoribbons. Advanced Functional Materials, 2015, 25, 6077-6083.	14.9	111
56	Low-Dimensional Topological Crystalline Insulators. Small, 2015, 11, 4613-4624.	10.0	24
57	Ultrasensitive Phototransistors Based on Fewâ€Layered HfS₂. Advanced Materials, 2015, 27, 7881-7887.	21.0	176
58	van der Waals Epitaxial Ultrathin Two-Dimensional Nonlayered Semiconductor for Highly Efficient Flexible Optoelectronic Devices. Nano Letters, 2015, 15, 1183-1189.	9.1	127
59	Highly sensitive and fast phototransistor based on large size CVD-grown SnS₂nanosheets. Nanoscale, 2015, 7, 14093-14099.	5.6	126
60	Synthesis, properties and applications of 2D non-graphene materials. Nanotechnology, 2015, 26, 292001.	2.6	101
61	Designing the shape evolution of SnSe₂nanosheets and their optoelectronic properties. Nanoscale, 2015, 7, 17375-17380.	5.6	121
62	Tunable GaTe-MoS₂ van der Waals pâ€“n Junctions with Novel Optoelectronic Performance. Nano Letters, 2015, 15, 7558-7566.	9.1	369
63	Sulfur vacancy activated field effect transistors based on ReS₂nanosheets. Nanoscale, 2015, 7, 15757-15762.	5.6	44
64	Ultrafast charge transfer in atomically thin MoS2/WS2 heterostructures. Nature Nanotechnology, 2014, 9, 682-686.	31.5	1,838
65	Giant bandgap renormalization and excitonic effects in a monolayer transition metal dichalcogenide semiconductor. Nature Materials, 2014, 13, 1091-1095.	27.5	1,470
66	Emerging Photoluminescence in Monolayer MoS₂. Nano Letters, 2010, 10, 1271-1275.	9.1	7,897