Feng Wang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1162406/publications.pdf

Version: 2024-02-01

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	Emerging Photoluminescence in Monolayer MoS₂. Nano Letters, 2010, 10, 1271-1275.	9.1	7,897
2	Ultrafast charge transfer in atomically thin MoS2/WS2 heterostructures. Nature Nanotechnology, 2014, 9, 682-686.	31.5	1,838
3	Giant bandgap renormalization and excitonic effects in a monolayer transition metal dichalcogenide semiconductor. Nature Materials, 2014, 13, 1091-1095.	27.5	1,470
4	Tunable GaTe-MoS₂ van der Waals pâ€“n Junctions with Novel Optoelectronic Performance. Nano Letters, 2015, 15, 7558-7566.	9.1	369
5	Recent Progress in CVD Growth of 2D Transition Metal Dichalcogenides and Related Heterostructures. Advanced Materials, 2019, 31, e1901694.	21.0	250
6	Highâ€Performance Ultraviolet Photodetector Based on a Fewâ€Layered 2D NiPS₃ Nanosheet. Advanced Functional Materials, 2017, 27, 1701342.	14.9	220
7	2D library beyond graphene and transition metal dichalcogenides: a focus on photodetection. Chemical Society Reviews, 2018, 47, 6296-6341.	38.1	207
8	High-performance, multifunctional devices based on asymmetric van der Waals heterostructures. Nature Electronics, 2018, 1, 356-361.	26.0	197
9	Ultrasensitive Phototransistors Based on Fewâ€Layered HfS₂. Advanced Materials, 2015, 27, 7881-7887.	21.0	176
10	Sub-10 nm Nanopattern Architecture for 2D Material Field-Effect Transistors. Nano Letters, 2017, 17, 1065-1070.	9.1	172
11	Twoâ€Dimensional Nonâ€Layered Materials: Synthesis, Properties and Applications. Advanced Functional Materials, 2017, 27, 1603254.	14.9	161
12	Nonvolatile infrared memory in MoS ₂ /PbS van der Waals heterostructures. Science Advances, 2018, 4, eaap7916.	10.3	161
13	Ultrathin Magnetic 2D Singleâ€Crystal CrSe. Advanced Materials, 2019, 31, e1900056.	21.0	154
14	Synthesis, properties and applications of 2D layered M^{III}X^{VI}(M = Ga, In; X = S,) Tj ETQq0 0 0 rgBT /Overlock 10	5.6	142
15	van der Waals Epitaxial Ultrathin Two-Dimensional Nonlayered Semiconductor for Highly Efficient Flexible Optoelectronic Devices. Nano Letters, 2015, 15, 1183-1189.	9.1	127
16	Highly sensitive and fast phototransistor based on large size CVD-grown SnS₂nanosheets. Nanoscale, 2015, 7, 14093-14099.	5.6	126
17	Designing the shape evolution of SnSe₂nanosheets and their optoelectronic properties. Nanoscale, 2015, 7, 17375-17380.	5.6	121
18	Ultrathin Singleâ€Crystalline CdTe Nanosheets Realized via Van der Waals Epitaxy. Advanced Materials, 2017, 29, 1703122.	21.0	118

#	Article	IF	Citations
19	Strain-Modulated Bandgap and Piezo-Resistive Effect in Black Phosphorus Field-Effect Transistors. Nano Letters, 2017, 17, 6097-6103.	9.1	117
20	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
21	Sub-millimeter-Scale Growth of One-Unit-Cell-Thick Ferrimagnetic Cr₂S₃ Nanosheets. Nano Letters, 2019, 19, 2154-2161.	9.1	110
22	Edgeâ€Epitaxial Growth of 2D NbS₂â€WS₂ Lateral Metalâ€Semiconductor Heterostructures. Advanced Materials, 2018, 30, e1803665.	21.0	109
23	Synthesis, properties and applications of 2D non-graphene materials. Nanotechnology, 2015, 26, 292001.	2.6	101
24	Integrated High-Performance Infrared Phototransistor Arrays Composed of Nonlayered PbSâ€“MoS₂ Heterostructures with Edge Contacts. Nano Letters, 2016, 16, 6437-6444.	9.1	98
25	Van der Waals Epitaxial Growth of Atomic Layered HfS₂ Crystals for Ultrasensitive Nearâ€Infrared Phototransistors. Advanced Materials, 2017, 29, 1700439.	21.0	96
26	Configurationâ€Dependent Electrically Tunable Van der Waals Heterostructures Based on MoTe₂/MoS₂. Advanced Functional Materials, 2016, 26, 5499-5506.	14.9	95
27	Ultrahigh sensitive MoTe2 phototransistors driven by carrier tunneling. Applied Physics Letters, 2016, 108, .	3.3	95
28	Epitaxial 2D PbS Nanoplates Arrays with Highly Efficient Infrared Response. Advanced Materials, 2016, 28, 8051-8057.	21.0	93
29	Two-dimensional metal phosphorus trisulfide nanosheet with solar hydrogen-evolving activity. Nano Energy, 2017, 40, 673-680.	16.0	91
30	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
31	Infraredâ€Sensitive Memory Based on Directâ€Grown MoS₂â€“Upconversionâ€Nanoparticle Heterostructure. Advanced Materials, 2018, 30, e1803563.	21.0	79
32	WSe2/GeSe heterojunction photodiode with giant gate tunability. Nano Energy, 2018, 49, 103-108.	16.0	73
33	Multibit Optoelectronic Memory in Topâ€Floatingâ€Gated van der Waals Heterostructures. Advanced Functional Materials, 2019, 29, 1902890.	14.9	69
34	Progress on Electronic and Optoelectronic Devices of 2D Layered Semiconducting Materials. Small, 2017, 13, 1604298.	10.0	65
35	Ultrafast and ultrasensitive phototransistors based on few-layered HfSe2. Applied Physics Letters, 2016, 109, .	3.3	60
36	Toward Highâ€Performance Topâ€Gate Ultrathin HfS₂ Fieldâ€Effect Transistors by Interface Engineering. Small, 2016, 12, 3106-3111.	10.0	55

#	Article	IF	Citations
37	Highâ€Performance Phototransistor of Epitaxial PbS Nanoplateâ€Graphene Heterostructure with Edge Contact. Advanced Materials, 2016, 28, 6497-6503.	21.0	51
38	Strong electrically tunable MoTe2/graphene van der Waals heterostructures for high-performance electronic and optoelectronic devices. Applied Physics Letters, 2016, 109, .	3.3	51
39	Two-Dimensional Unipolar Memristors with Logic and Memory Functions. Nano Letters, 2020, 20, 4144-4152.	9.1	50
40	Electrostatically tunable lateral MoTe₂pâ€“n junction for use in high-performance optoelectronics. Nanoscale, 2016, 8, 13245-13250.	5.6	49
41	Multifunctional tunneling devices based on graphene/h-BN/MoSe2 van der Waals heterostructures. Applied Physics Letters, 2017, 110, .	3.3	49
42	Sulfur vacancy activated field effect transistors based on ReS₂nanosheets. Nanoscale, 2015, 7, 15757-15762.	5.6	44
43	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
44	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
45	Oriented Growth of Pb_{1â^’}_xSn_xTe Nanowire Arrays for Integration of Flexible Infrared Detectors. Advanced Materials, 2016, 28, 3596-3601.	21.0	39
46	Impact of Thickness on Contact Issues for Pinning Effect in Black Phosphorus Fieldâ€Effect Transistors. Advanced Functional Materials, 2018, 28, 1801398.	14.9	39
47	Robust trap effect in transition metal dichalcogenides for advanced multifunctional devices. Nature Communications, 2019, 10, 4133.	12.8	39
48	Rational Design of Ultralarge Pb_{1â^’}_xSn_xTe Nanoplates for Exploring Crystalline Symmetryâ€Protected Topological Transport. Advanced Materials, 2016, 28, 617-623.	21.0	38
49	Reconfigurable photovoltaic effect for optoelectronic artificial synapse based on ferroelectric p-n junction. Nano Research, 2021, 14, 4328-4335.	10.4	33
50	Antiâ€Ambipolar Transport with Large Electrical Modulation in 2D Heterostructured Devices. Advanced Materials, 2019, 31, e1901144.	21.0	28
51	Strongly coupled van der Waals heterostructures for high-performance infrared phototransistor. Applied Physics Letters, 2019, 114, .	3.3	28
52	Recent progress on emergent two-dimensional magnets and heterostructures. Nanotechnology, 2021, 32, 472001.	2.6	25
53	Low-Dimensional Topological Crystalline Insulators. Small, 2015, 11, 4613-4624.	10.0	24
54	A unipolar nonvolatile resistive switching behavior in a layered transition metal oxide. Nanoscale, 2019, 11, 20497-20506.	5.6	24

#	Article	IF	Citations
55	Gapless van der Waals Heterostructures for Infrared Optoelectronic Devices. ACS Nano, 2019, 13, 14519-14528.	14.6	24
56	Van der Waals Heterostructure Devices with Dynamically Controlled Conduction Polarity and Multifunctionality. Advanced Functional Materials, 2019, 29, 1804897.	14.9	23
57	Ferroelectric-induced carrier modulation for ambipolar transition metal dichalcogenide transistors. Applied Physics Letters, 2017, 110, .	3.3	22
58	Controlled synthesis and Raman study of a 2D antiferromagnetic P-type semiconductor: Î±-MnSe. Nanoscale, 2021, 13, 6953-6964.	5.6	20
59	Uncovering the Conduction Behavior of van der Waals Ambipolar Semiconductors. Advanced Materials, 2019, 31, e1805317.	21.0	19
60	Controlling Injection Barriers for Ambipolar 2D Semiconductors via Quasiâ€van der Waals Contacts. Advanced Science, 2019, 6, 1801841.	11.2	17
61	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
62	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
63	Ultrasensitive Ferroelectric Semiconductor Phototransistors for Photonâ€Level Detection. Advanced Functional Materials, 2022, 32, .	14.9	12
64	Short channel field-effect transistors from ultrathin GaTe nanosheets. Applied Physics Letters, 2015, 107, .	3.3	11
65	Van der Waals integration of 2D atomic crystals for advanced multifunctional devices. Science Bulletin, 2019, 64, 1033-1035.	9.0	6
66	Growth, Raman Scattering Investigation and Photodetector Properties of 2D SnP. Small, 2022, 18, e2108017.	10.0	5