

Weida Hu

List of Publications by Year in descending order

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papers

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323
times ranked

15650
citing authors

#	ARTICLE	IF	CITATIONS
1	Progress, Challenges, and Opportunities for 2D Material Based Photodetectors. <i>Advanced Functional Materials</i> , 2019, 29, 1803807.	14.9	884
2	Ultrasensitive and Broadband MoS ₂ Photodetector Driven by Ferroelectrics. <i>Advanced Materials</i> , 2015, 27, 6575-6581.	21.0	722
3	Photogating in Low Dimensional Photodetectors. <i>Advanced Science</i> , 2017, 4, 1700323.	11.2	622
4	Interlayer Transition and Infrared Photodetection in Atomically Thin Type-II MoTe ₂ /MoS ₂ van der Waals Heterostructures. <i>ACS Nano</i> , 2016, 10, 3852-3858.	14.6	453
5	Room temperature high-detectivity mid-infrared photodetectors based on black arsenic phosphorus. <i>Science Advances</i> , 2017, 3, e1700589.	10.3	419
6	Ultrafast and broadband photodetectors based on a perovskite/organic bulk heterojunction for large-dynamic-range imaging. <i>Light: Science and Applications</i> , 2020, 9, 31.	16.6	372
7	Van der Waals epitaxial growth and optoelectronics of large-scale WSe ₂ /SnS ₂ vertical bilayer p-n junctions. <i>Nature Communications</i> , 2017, 8, 1906.	12.8	369
8	Surface Plasmon-Enhanced Photodetection in Few Layer MoS ₂ Phototransistors with Au Nanostructure Arrays. <i>Small</i> , 2015, 11, 2392-2398.	10.0	359
9	Broadband Photovoltaic Detectors Based on an Atomically Thin Heterostructure. <i>Nano Letters</i> , 2016, 16, 2254-2259.	9.1	322
10	Unipolar barrier photodetectors based on van der Waals heterostructures. <i>Nature Electronics</i> , 2021, 4, 357-363.	26.0	292
11	Plasmonic Silicon Quantum Dots Enabled High-Sensitivity Ultrabroadband Photodetection of Graphene-Based Hybrid Phototransistors. <i>ACS Nano</i> , 2017, 11, 9854-9862.	14.6	285
12	ReS ₂ -Based Field-Effect Transistors and Photodetectors. <i>Advanced Functional Materials</i> , 2015, 25, 4076-4082.	14.9	282
13	Tunable Ambipolar Polarization-Sensitive Photodetectors Based on High-Anisotropy ReSe ₂ Nanosheets. <i>ACS Nano</i> , 2016, 10, 8067-8077.	14.6	276
14	High Responsivity Phototransistors Based on Few-Layer ReS ₂ for Weak Signal Detection. <i>Advanced Functional Materials</i> , 2016, 26, 1938-1944.	14.9	270
15	Recent Progress on Two-Dimensional Materials. <i>Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica</i> , 2021, .	4.9	269
16	Stable mid-infrared polarization imaging based on quasi-2D tellurium at room temperature. <i>Nature Communications</i> , 2020, 11, 2308.	12.8	259
17	Generalized colloidal synthesis of high-quality, two-dimensional cesium lead halide perovskite nanosheets and their applications in photodetectors. <i>Nanoscale</i> , 2016, 8, 13589-13596.	5.6	252
18	Highly polarization sensitive infrared photodetector based on black phosphorus-on-WSe ₂ photogate vertical heterostructure. <i>Nano Energy</i> , 2017, 37, 53-60.	16.0	252

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19	Solution-Processed Graphene Quantum Dot Deep-UV Photodetectors. ACS Nano, 2015, 9, 1561-1570.	14.6	249
20	Single InAs Nanowire Room-Temperature Near-Infrared Photodetectors. ACS Nano, 2014, 8, 3628-3635.	14.6	238
21	Recent Progress on Localized Field Enhanced Two-dimensional Material Photodetectors from Ultraviolet to Visible to Infrared. Small, 2017, 13, 1700894.	10.0	234
22	Tailored Engineering of an Unusual $(\text{C}_4\text{H}_9\text{NH})_2(\text{CH}_3\text{NH}_3)_2\text{Pb}_3\text{Br}_3$ Two-dimensional Multilayered Perovskite Ferroelectric for a High-performance Photodetector. Angewandte Chemie - International Edition, 2017, 56, 12150-12154.	13.8	229
23	Arrayed Van Der Waals Broadband Detectors for Dual-band Detection. Advanced Materials, 2017, 29, 1604439.	21.0	218
24	High efficiency and fast van der Waals hetero-photodiodes with a unilateral depletion region. Nature Communications, 2019, 10, 4663.	12.8	213
25	A self-powered high-performance graphene/silicon ultraviolet photodetector with ultra-shallow junction: breaking the limit of silicon?. Npj 2D Materials and Applications, 2017, 1, .	7.9	211
26	High-performance Photovoltaic Detector Based on $\text{MoTe}_2/\text{MoS}_2$ Van der Waals Heterostructure. Small, 2018, 14, 1703293.	10.0	205
27	Palladium Diselenide Long-Wavelength Infrared Photodetector with High Sensitivity and Stability. ACS Nano, 2019, 13, 2511-2519.	14.6	198
28	Highly sensitive visible to infrared MoTe_2 photodetectors enhanced by the photogating effect. Nanotechnology, 2016, 27, 445201.	2.6	188
29	All-in-one two-dimensional retinomorphic hardware device for motion detection and recognition. Nature Nanotechnology, 2022, 17, 27-32.	31.5	187
30	2D materials-based homogeneous transistor-memory architecture for neuromorphic hardware. Science, 2021, 373, 1353-1358.	12.6	177
31	Solution-Processed 3D RGO $\text{MoS}_2/\text{Pyramid Si}$ Heterojunction for Ultrahigh Detectivity and Ultra-broadband Photodetection. Advanced Materials, 2018, 30, e1801729.	21.0	175
32	Anomalous and Highly Efficient InAs Nanowire Phototransistors Based on Majority Carrier Transport at Room Temperature. Advanced Materials, 2014, 26, 8203-8209.	21.0	168
33	Programmable transition metal dichalcogenide homojunctions controlled by nonvolatile ferroelectric domains. Nature Electronics, 2020, 3, 43-50.	26.0	167
34	The Study of Self-Heating and Hot-Electron Effects for AlGaN/GaN Double-Channel HEMTs. IEEE Transactions on Electron Devices, 2012, 59, 1393-1401.	3.0	166
35	High-Responsivity Graphene/InAs Nanowire Heterojunction Near-Infrared Photodetectors with Distinct Photocurrent On/Off Ratios. Small, 2015, 11, 936-942.	10.0	166
36	Perpendicular Optical Reversal of the Linear Dichroism and Polarized Photodetection in 2D GeAs. ACS Nano, 2018, 12, 12416-12423.	14.6	157

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37	Observation of ballistic avalanche phenomena in nanoscale vertical InSe/BP heterostructures. Nature Nanotechnology, 2019, 14, 217-222.	31.5	153
38	High-performance graphene photodetector using interfacial gating. Optica, 2016, 3, 1066.	9.3	152
39	Enhanced Photoresponsivity of a GaAs Nanowire Metal-Semiconductor-Metal Photodetector by Adjusting the Fermi Level. ACS Applied Materials & Interfaces, 2019, 11, 33188-33193.	8.0	151
40	Arrayed van der Waals Vertical Heterostructures Based on 2D GaSe Grown by Molecular Beam Epitaxy. Nano Letters, 2015, 15, 3571-3577.	9.1	146
41	Inchâ€Size Single Crystal of a Leadâ€Free Organicâ€Inorganic Hybrid Perovskite for Highâ€Performance Photodetector. Advanced Functional Materials, 2018, 28, 1705467.	14.9	146
42	When Nanowires Meet Ultrahigh Ferroelectric Fieldâ€High-Performance Full-Depleted Nanowire Photodetectors. Nano Letters, 2016, 16, 2548-2555.	9.1	135
43	Visible Light-Assisted High-Performance Mid-Infrared Photodetectors Based on Single InAs Nanowire. Nano Letters, 2016, 16, 6416-6424.	9.1	134
44	Epitaxial Ultrathin Organic Crystals on Graphene for Highâ€Efficiency Phototransistors. Advanced Materials, 2016, 28, 5200-5205.	21.0	134
45	Perovskiteâ€Erbium Silicate Nanosheet Hybrid Waveguide Photodetectors at the Nearâ€Infrared Telecommunication Band. Advanced Materials, 2017, 29, 1604431.	21.0	132
46	Graphene Hybrid Structures for Integrated and Flexible Optoelectronics. Advanced Materials, 2020, 32, e1902039.	21.0	127
47	Highâ€Sensitivity Floatingâ€Gate Phototransistors Based on WS₂ and MoS₂. Advanced Functional Materials, 2016, 26, 6084-6090.	14.9	124
48	Negative Photoconductance in van der Waals Heterostructure-Based Floating Gate Phototransistor. ACS Nano, 2018, 12, 9513-9520.	14.6	124
49	Ultrasensitive negative capacitance phototransistors. Nature Communications, 2020, 11, 101.	12.8	124
50	AsP/InSe Van der Waals Tunneling Heterojunctions with Ultrahigh Reverse Rectification Ratio and High Photosensitivity. Advanced Functional Materials, 2019, 29, 1900314.	14.9	121
51	Blackbody-sensitive room-temperature infrared photodetectors based on low-dimensional tellurium grown by chemical vapor deposition. Science Advances, 2021, 7, .	10.3	121
52	Recent Progress on Electrical and Optical Manipulations of Perovskite Photodetectors. Advanced Science, 2021, 8, e2100569.	11.2	118
53	Diamondâ€Based Allâ€Carbon Photodetectors for Solarâ€Blind Imaging. Advanced Optical Materials, 2018, 6, 1800068.	7.3	117
54	MoTe₂ pâ€n Homojunctions Defined by Ferroelectric Polarization. Advanced Materials, 2020, 32, e1907937.	21.0	115

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55	Near-Infrared Plasmonic 2D Semimetals for Applications in Communication and Biology. <i>Advanced Functional Materials</i> , 2016, 26, 1793-1802.	14.9	114
56	128 Å– 128 long-wavelength/mid-wavelength two-color HgCdTe infrared focal plane array detector with ultralow spectral cross talk. <i>Optics Letters</i> , 2014, 39, 5184.	3.3	110
57	A Broadband Fluorographene Photodetector. <i>Advanced Materials</i> , 2017, 29, 1700463.	21.0	110
58	High-Performance Ferroelectric Polymer Side-Gated CdS Nanowire Ultraviolet Photodetectors. <i>Advanced Functional Materials</i> , 2016, 26, 7690-7696.	14.9	107
59	Sensitive and Ultrabroadband Phototransistor Based on Two-Dimensional Bi ₂ O ₂ Se Nanosheets. <i>Advanced Functional Materials</i> , 2019, 29, 1905806.	14.9	106
60	Transparent, High-Performance Thin-Film Transistors with an InGaZnO/Aligned-SnO ₂ -Nanowire Composite and their Application in Photodetectors. <i>Advanced Materials</i> , 2014, 26, 7399-7404.	21.0	104
61	Photothermal Effect Induced Negative Photoconductivity and High Responsivity in Flexible Black Phosphorus Transistors. <i>ACS Nano</i> , 2017, 11, 6048-6056.	14.6	104
62	Ultrafast Dynamic Pressure Sensors Based on Graphene Hybrid Structure. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 24148-24154.	8.0	103
63	High-Performance Near-Infrared Photodetectors Based on p-Type SnX (X = S, Se) Nanowires Grown <i>via</i> Chemical Vapor Deposition. <i>ACS Nano</i> , 2018, 12, 7239-7245.	14.6	101
64	A hybrid surface passivation on HgCdTe long wave infrared detector with <i>in-situ</i> CdTe deposition and high-density hydrogen plasma modification. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	99
65	PtTe ₂ -Based Type-II Dirac Semimetal and Its van der Waals Heterostructure for Sensitive Room Temperature Terahertz Photodetection. <i>Small</i> , 2019, 15, e1903362.	10.0	98
66	Magnetism and Optical Anisotropy in van der Waals Antiferromagnetic Insulator CrOCl. <i>ACS Nano</i> , 2019, 13, 11353-11362.	14.6	97
67	Van der Waals two-color infrared photodetector. <i>Light: Science and Applications</i> , 2022, 11, 6.	16.6	97
68	Amorphous Gallium Oxide-Based Gate-Tunable High-Performance Thin Film Phototransistor for Solar-Blind Imaging. <i>Advanced Electronic Materials</i> , 2019, 5, 1900389.	5.1	95
69	Logic gates based on neuristors made from two-dimensional materials. <i>Nature Electronics</i> , 2021, 4, 399-404.	26.0	95
70	Fabrication of 1D Te/2D ReS ₂ Mixed-Dimensional van der Waals <i>p-n</i> Heterojunction for High-Performance Phototransistor. <i>ACS Nano</i> , 2021, 15, 3241-3250.	14.6	91
71	Toward Sensitive Room-Temperature Broadband Detection from Infrared to Terahertz with Antenna-Integrated Black Phosphorus Photoconductor. <i>Advanced Functional Materials</i> , 2017, 27, 1604414.	14.9	88
72	High-Performance Wafer-Scale MoS ₂ Transistors toward Practical Application. <i>Small</i> , 2018, 14, e1803465.	10.0	88

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73	Flexible Quasi-2D Perovskite/IGZO Phototransistors for Ultrasensitive and Broadband Photodetection. <i>Advanced Materials</i> , 2020, 32, e1907527.	21.0	88
74	Controlled Doping of Wafer-Scale PtSe ₂ Films for Device Application. <i>Advanced Functional Materials</i> , 2019, 29, 1805614.	14.9	87
75	Analysis of temperature dependence of dark current mechanisms for long-wavelength HgCdTe photovoltaic infrared detectors. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	86
76	Ferroelectric FET for nonvolatile memory application with two-dimensional MoSe ₂ channels. <i>2D Materials</i> , 2017, 4, 025036.	4.4	85
77	Ferroelectric Localized Field-Enhanced ZnO Nanosheet Ultraviolet Photodetector with High Sensitivity and Low Dark Current. <i>Small</i> , 2018, 14, e1800492.	10.0	85
78	Sensing Infrared Photons at Room Temperature: From Bulk Materials to Atomic Layers. <i>Small</i> , 2019, 15, e1904396.	10.0	83
79	A novel plasmonic resonance sensor based on an infrared perfect absorber. <i>Journal Physics D: Applied Physics</i> , 2012, 45, 205102.	2.8	82
80	Optoelectronic Properties of Printed Photogating Carbon Nanotube Thin Film Transistors and Their Application for Light-Stimulated Neuromorphic Devices. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 12161-12169.	8.0	80
81	Ferroelectric-tuned van der Waals heterojunction with band alignment evolution. <i>Nature Communications</i> , 2021, 12, 4030.	12.8	79
82	Controllable Growth of Lead-Free All-Inorganic Perovskite Nanowire Array with Fast and Stable Near-Infrared Photodetection. <i>Journal of Physical Chemistry C</i> , 2019, 123, 17566-17573.	3.1	78
83	WSe ₂ Photovoltaic Device Based on Intramolecular p-n Junction. <i>Small</i> , 2019, 15, e1805545.	10.0	78
84	Two-dimensional negative capacitance transistor with polyvinylidene fluoride-based ferroelectric polymer gating. <i>Npj 2D Materials and Applications</i> , 2017, 1, .	7.9	77
85	Ultra-sensitive polarization-resolved black phosphorus homojunction photodetector defined by ferroelectric domains. <i>Nature Communications</i> , 2022, 13, .	12.8	77
86	Two-dimensional transient simulations of drain lag and current collapse in GaN-based high-electron-mobility transistors. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	76
87	Optoelectronic Properties of Few-Layer MoS ₂ FET Gated by Ferroelectric Relaxor Polymer. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 32083-32088.	8.0	76
88	Integration of High-k Oxide on MoS ₂ by Using Ozone Pretreatment for High-Performance MoS ₂ Top-Gated Transistor with Thickness-Dependent Carrier Scattering Investigation. <i>Small</i> , 2015, 11, 5932-5938.	10.0	74
89	WSe ₂ /GeSe heterojunction photodiode with giant gate tunability. <i>Nano Energy</i> , 2018, 49, 103-108.	16.0	73
90	Visible to near-infrared photodetectors based on MoS ₂ vertical Schottky junctions. <i>Nanotechnology</i> , 2017, 28, 484002.	2.6	73

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91	A Noble Metal Dichalcogenide for High-Performance Field-Effect Transistors and Broadband Photodetectors. <i>Advanced Functional Materials</i> , 2020, 30, 1907945.	14.9	72
92	Tailored Engineering of an Unusual $(\text{C}_{4}\text{H}_{9}\text{NH}_{3})_{2}(\text{CH}_{3}\text{NH}_{3})_{2}\text{Pb}_{3}\text{Br}_{7}$ Two-Dimensional Multilayered Perovskite Ferroelectric for a High-Performance Photodetector. <i>Angewandte Chemie</i> , 2017, 129, 12318-12322.	2.0	71
93	Gate-Tunable Semiconductor Heterojunctions from 2D/3D van der Waals Interfaces. <i>Nano Letters</i> , 2020, 20, 2907-2915.	9.1	69
94	Air-Stable Low-Symmetry Narrow-Bandgap 2D Sulfide Niobium for Polarization Photodetection. <i>Advanced Materials</i> , 2020, 32, e2005037.	21.0	68
95	Stable and sensitive tin-lead perovskite photodetectors enabled by azobenzene derivative for near-infrared acousto-optic conversion communications. <i>Nano Energy</i> , 2021, 86, 106113.	16.0	68
96	Distinct Photocurrent Response of Individual GaAs Nanowires Induced by n-Type Doping. <i>ACS Nano</i> , 2012, 6, 6005-6013.	14.6	66
97	Light-Driven $\text{WSe}_{2}/\text{ZnO}$ Junction Field-Effect Transistors for High-Performance Photodetection. <i>Advanced Science</i> , 2020, 7, 1901637.	11.2	66
98	Exploring a Polar Two-Dimensional Multilayered Hybrid Perovskite of $(\text{C}_{5}\text{H}_{11}\text{NH}_{3})_{2}(\text{CH}_{3}\text{NH}_{3})\text{Pb}_{2}\text{I}_{7}$ for Ultrafast-Responding Photodetection. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800060.	4.5	65
99	A Dual-Gate MoS_{2} Photodetector Based on Interface Coupling Effect. <i>Small</i> , 2020, 16, e1904369.	10.0	65
100	Broadband $\text{Bi}_{2}\text{O}_{2}\text{Se}$ Photodetectors from Infrared to Terahertz. <i>Advanced Functional Materials</i> , 2021, 31, 2009554.	14.9	65
101	Dependence of Ion-Implant-Induced LBIC Novel Characteristic on Excitation Intensity for Long-Wavelength HgCdTe-Based Photovoltaic Infrared Detector Pixel Arrays. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013, 19, 1-7.	2.9	64
102	Laser beam induced current microscopy and photocurrent mapping for junction characterization of infrared photodetectors. <i>Science China: Physics, Mechanics and Astronomy</i> , 2015, 58, 1-13.	5.1	63
103	Scalable Integration of Indium Zinc Oxide/Photosensitive Nanowire Composite Thin-Film Transistors for Transparent Multicolor Photodetectors Array. <i>Advanced Materials</i> , 2014, 26, 2919-2924.	21.0	62
104	Ultrasensitive Hybrid $\text{MoS}_{2}/\text{ZnCdSe}$ Quantum Dot Photodetectors with High Gain. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 23667-23672.	8.0	62
105	Composition and phase engineering of metal chalcogenides and phosphorous chalcogenides. <i>Nature Materials</i> , 2023, 22, 450-458.	27.5	62
106	Ultrahigh Hole Mobility of Sn-Catalyzed GaSb Nanowires for High Speed Infrared Photodetectors. <i>Nano Letters</i> , 2019, 19, 5920-5929.	9.1	61
107	Graphene-assisted metal transfer printing for wafer-scale integration of metal electrodes and two-dimensional materials. <i>Nature Electronics</i> , 2022, 5, 275-280.	26.0	61
108	Self-heating simulation of GaN-based metal-oxide-semiconductor high-electron-mobility transistors including hot electron and quantum effects. <i>Journal of Applied Physics</i> , 2006, 100, 074501.	2.5	59

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109	Controllable Doping in 2D Layered Materials. <i>Advanced Materials</i> , 2021, 33, e2104942.	21.0	59
110	Fast Uncooled Mid-Wavelength Infrared Photodetectors with Heterostructures of van der Waals on Epitaxial HgCdTe. <i>Advanced Materials</i> , 2022, 34, e2107772.	21.0	58
111	Next-generation machine vision systems incorporating two-dimensional materials: Progress and perspectives. <i>Informa-Materially</i> , 2022, 4, .	17.3	58
112	Ultrabroadband Photodetectors up to 10.6 μm Based on 2D Fe_3O_4 Nanosheets. <i>Advanced Materials</i> , 2020, 32, e2002237.	21.0	57
113	A versatile photodetector assisted by photovoltaic and bolometric effects. <i>Light: Science and Applications</i> , 2020, 9, 160.	16.6	56
114	Study of gain and photoresponse characteristics for back-illuminated separate absorption and multiplication GaN avalanche photodiodes. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	55
115	Vertically Stacked and Self-Encapsulated van der Waals Heterojunction Diodes Using Two-Dimensional Layered Semiconductors. <i>ACS Nano</i> , 2017, 11, 10472-10479.	14.6	55
116	Gate-tunable rectification inversion and photovoltaic detection in graphene/WSe ₂ heterostructures. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	54
117	Controllable Growth of Vertical Heterostructure $\text{GaTe}/\text{Se}/\text{Si}$ by Molecular Beam Epitaxy. <i>ACS Nano</i> , 2015, 9, 8592-8598.	14.6	53
118	Solvent-Based Soft Patterning of Graphene Lateral Heterostructures for Broadband High-Speed Metal-Semiconductor-Metal Photodetectors. <i>Advanced Materials Technologies</i> , 2017, 2, 1600241.	5.8	53
119	Down-Scalable and Ultra-fast Memristors with Ultra-high Density Three-Dimensional Arrays of Perovskite Quantum Wires. <i>Nano Letters</i> , 2021, 21, 5036-5044.	9.1	53
120	Time-Tailoring van der Waals Heterostructures for Human Memory System Programming. <i>Advanced Science</i> , 2019, 6, 1901072.	11.2	52
121	Multimechanism Synergistic Photodetectors with Ultrabroad Spectrum Response from 375 nm to 10 μm . <i>Advanced Science</i> , 2019, 6, 1901050.	11.2	52
122	Direct Polarimetric Image Sensor and Wide Spectral Response Based on Quasi-1D Sb_2S_3 Nanowire. <i>Advanced Functional Materials</i> , 2021, 31, 2006601.	14.9	52
123	Ferroelectric polymer tuned two dimensional layered MoTe_2 photodetector. <i>RSC Advances</i> , 2016, 6, 87416-87421.	3.6	51
124	Ambipolar Graphene-Quantum Dot Phototransistors with CMOS Compatibility. <i>Advanced Optical Materials</i> , 2018, 6, 1800985.	7.3	50
125	Symmetric Ultrafast Writing and Erasing Speeds in Quasi-Nonvolatile Memory via van der Waals Heterostructures. <i>Advanced Materials</i> , 2019, 31, e1808035.	21.0	50
126	Etching Techniques in 2D Materials. <i>Advanced Materials Technologies</i> , 2019, 4, 1900064.	5.8	50

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127	HgCdTe/black phosphorus van der Waals heterojunction for high-performance polarization-sensitive midwave infrared photodetector. <i>Science Advances</i> , 2022, 8, eabn1811.	10.3	50
128	Simulation of InGaN/GaN multiple quantum well light-emitting diodes with quantum dot model for electrical and optical effects. <i>Optical and Quantum Electronics</i> , 2007, 38, 1077-1089.	3.3	49
129	Enhanced plasmonic resonant excitation in a grating gated field-effect transistor with supplemental gates. <i>Optics Express</i> , 2013, 21, 1606.	3.4	48
130	Dark Current Transport and Avalanche Mechanism in HgCdTe Electron-Avalanche Photodiodes. <i>IEEE Transactions on Electron Devices</i> , 2015, 62, 1926-1931.	3.0	48
131	Nb ₂ SiTe ₄ : A Stable Narrow-Gap Two-Dimensional Material with Ambipolar Transport and Mid-Infrared Response. <i>ACS Nano</i> , 2019, 13, 10705-10710.	14.6	48
132	Trends in Performance Limits of the HOT Infrared Photodetectors. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 501.	2.5	48
133	High-quality infrared imaging with graphene photodetectors at room temperature. <i>Nanoscale</i> , 2016, 8, 16065-16072.	5.6	47
134	Hybrid WSe ₂ /In ₂ O ₃ Phototransistor with Ultrahigh Detectivity by Efficient Suppression of Dark Currents. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 34489-34496.	8.0	47
135	Accurate Simulation of Temperature-Dependent Dark Current in HgCdTe Infrared Detectors Assisted by Analytical Modeling. <i>Journal of Electronic Materials</i> , 2010, 39, 981-985.	2.2	46
136	Surface leakage current in 125- μ m long-wavelength HgCdTe infrared photodiode arrays. <i>Optics Letters</i> , 2016, 41, 828.	3.3	46
137	Characterization of atomic defects on the photoluminescence in two-dimensional materials using transmission electron microscope. <i>Informa-An-Materi-ly</i> , 2019, 1, 85-97.	17.3	46
138	Highly Polarized Photoelectrical Response in vdW ZrS ₃ Nanoribbons. <i>Advanced Electronic Materials</i> , 2019, 5, 1900419.	5.1	45
139	Artificial control of in-plane anisotropic photoelectricity in monolayer MoS ₂ . <i>Applied Materials Today</i> , 2019, 15, 203-211.	4.3	45
140	Ultrasensitive Mid-wavelength Infrared Photodetection Based on a Single InAs Nanowire. <i>ACS Nano</i> , 2019, 13, 3492-3499.	14.6	45
141	Simulation and optimization of GaN-based metal-oxide-semiconductor high-electron-mobility-transistor using field-dependent drift velocity model. <i>Journal of Applied Physics</i> , 2007, 102, .	2.5	44
142	Influencing Sources for Dark Current Transport and Avalanche Mechanisms in Planar and Mesa HgCdTe p-i-n Electron-Avalanche Photodiodes. <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 572-576.	3.0	44
143	Multicolor Broadband and Fast Photodetector Based on InGaAs/Insulator/Graphene Hybrid Heterostructure. <i>Advanced Electronic Materials</i> , 2020, 6, 1901007.	5.1	44
144	Efficiency enhancement of blue InGaN/GaN light-emitting diodes with an AlGaN-GaN-AlGaN electron blocking layer. <i>Journal of Applied Physics</i> , 2012, 111, .	2.5	43

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145	Room-Temperature Single-Photon Detector Based on Single Nanowire. Nano Letters, 2018, 18, 5439-5445.	9.1	42
146	Wafer-scale arrayed p-n junctions based on few-layer epitaxial GaTe. Nano Research, 2015, 8, 3332-3341.	10.4	41
147	Side-gated In ₂ O ₃ Nanowire Ferroelectric FETs for High-performance Nonvolatile Memory Applications. Advanced Science, 2016, 3, 1600078.	11.2	41
148	Highly Sensitive InSb Nanosheets Infrared Photodetector Passivated by Ferroelectric Polymer. Advanced Functional Materials, 2020, 30, 2006156.	14.9	41
149	Light-modulated vertical heterojunction phototransistors with distinct logical photocurrents. Light: Science and Applications, 2020, 9, 167.	16.6	40
150	Epitaxial growth of metal-semiconductor van der Waals heterostructures NbS ₂ /MoS ₂ with enhanced performance of transistors and photodetectors. Science China Materials, 2020, 63, 1548-1559.	6.3	40
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