

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

286 papers	13,869 citations	60 h-index	106 g-index
323 ext. papers	17,569 ext. citations	9.7 avg, IF	6.73 L-index

#	Paper	IF	Citations
286	Ultrasensitive and Broadband MoS ₂ Photodetector Driven by Ferroelectrics. <i>Advanced Materials</i> , 2015 , 27, 6575-81	24	559
285	Progress, Challenges, and Opportunities for 2D Material Based Photodetectors. <i>Advanced Functional Materials</i> , 2019 , 29, 1803807	15.6	481
284	Photogating in Low Dimensional Photodetectors. <i>Advanced Science</i> , 2017 , 4, 1700323	13.6	372
283	Interlayer Transition and Infrared Photodetection in Atomically Thin Type-II MoTe ₂ /MoS ₂ Van der Waals Heterostructures. <i>ACS Nano</i> , 2016 , 10, 3852-8	16.7	314
282	Surface Plasmon-Enhanced Photodetection in Few Layer MoS ₂ Phototransistors with Au Nanostructure Arrays. <i>Small</i> , 2015 , 11, 2392-8	11	292
281	Room temperature high-detectivity mid-infrared photodetectors based on black arsenic phosphorus. <i>Science Advances</i> , 2017 , 3, e1700589	14.3	269
280	Van der Waals epitaxial growth and optoelectronics of large-scale WSe ₂ /SnS vertical bilayer p-n junctions. <i>Nature Communications</i> , 2017 , 8, 1906	17.4	258
279	Broadband Photovoltaic Detectors Based on an Atomically Thin Heterostructure. <i>Nano Letters</i> , 2016 , 16, 2254-9	11.5	248
278	ReS ₂ -Based Field-Effect Transistors and Photodetectors. <i>Advanced Functional Materials</i> , 2015 , 25, 4076-4082	19.8	235
277	High Responsivity Phototransistors Based on Few-Layer ReS ₂ for Weak Signal Detection. <i>Advanced Functional Materials</i> , 2016 , 26, 1938-1944	15.6	217
276	Generalized colloidal synthesis of high-quality, two-dimensional cesium lead halide perovskite nanosheets and their applications in photodetectors. <i>Nanoscale</i> , 2016 , 8, 13589-96	7.7	215
275	Plasmonic Silicon Quantum Dots Enabled High-Sensitivity Ultrabroadband Photodetection of Graphene-Based Hybrid Phototransistors. <i>ACS Nano</i> , 2017 , 11, 9854-9862	16.7	209
274	Solution-processed graphene quantum dot deep-UV photodetectors. <i>ACS Nano</i> , 2015 , 9, 1561-70	16.7	206
273	Single InAs nanowire room-temperature near-infrared photodetectors. <i>ACS Nano</i> , 2014 , 8, 3628-35	16.7	202
272	Tunable Ambipolar Polarization-Sensitive Photodetectors Based on High-Anisotropy ReSe ₂ Nanosheets. <i>ACS Nano</i> , 2016 , 10, 8067-77	16.7	200
271	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	16.7	194
270	Highly polarization sensitive infrared photodetector based on black phosphorus-on-WSe ₂ photogate vertical heterostructure. <i>Nano Energy</i> , 2017 , 37, 53-60	17.1	185

269	Tailored Engineering of an Unusual (C H NH) (CH NH) Pb Br Two-Dimensional Multilayered Perovskite Ferroelectric for a High-Performance Photodetector. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 12150-12154	16.4	182
268	Recent Progress on Localized Field Enhanced Two-dimensional Material Photodetectors from Ultraviolet-Visible to Infrared. <i>Small</i> , 2017 , 13, 1700894	11	181
267	Arrayed Van Der Waals Broadband Detectors for Dual-Band Detection. <i>Advanced Materials</i> , 2017 , 29, 1604439	24	161
266	A self-powered high-performance graphene/silicon ultraviolet photodetector with ultra-shallow junction: breaking the limit of silicon?. <i>Npj 2D Materials and Applications</i> , 2017 , 1,	8.8	144
265	Palladium Diselenide Long-Wavelength Infrared Photodetector with High Sensitivity and Stability. <i>ACS Nano</i> , 2019 , 13, 2511-2519	16.7	144
264	High-responsivity graphene/InAs nanowire heterojunction near-infrared photodetectors with distinct photocurrent on/off ratios. <i>Small</i> , 2015 , 11, 936-42	11	140
263	. <i>IEEE Transactions on Electron Devices</i> , 2012 , 59, 1393-1401	2.9	134
262	Anomalous and highly efficient InAs nanowire phototransistors based on majority carrier transport at room temperature. <i>Advanced Materials</i> , 2014 , 26, 8203-9	24	133
261	High-Performance Photovoltaic Detector Based on MoTe /MoS Van der Waals Heterostructure. <i>Small</i> , 2018 , 14, 1703293	11	132
260	High efficiency and fast van der Waals hetero-photodiodes with a unilateral depletion region. <i>Nature Communications</i> , 2019 , 10, 4663	17.4	127
259	Highly sensitive visible to infrared MoTe ₂ photodetectors enhanced by the photogating effect. <i>Nanotechnology</i> , 2016 , 27, 445201	3.4	126
258	Stable mid-infrared polarization imaging based on quasi-2D tellurium at room temperature. <i>Nature Communications</i> , 2020 , 11, 2308	17.4	120
257	Arrayed van der Waals Vertical Heterostructures Based on 2D GaSe Grown by Molecular Beam Epitaxy. <i>Nano Letters</i> , 2015 , 15, 3571-7	11.5	119
256	Solution-Processed 3D RGO-MoS /Pyramid Si Heterojunction for Ultrahigh Detectivity and Ultra-Broadband Photodetection. <i>Advanced Materials</i> , 2018 , 30, e1801729	24	117
255	Enhanced Photoresponsivity of a GaAs Nanowire Metal-Semiconductor-Metal Photodetector by Adjusting the Fermi Level. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 33188-33193	9.5	115
254	Epitaxial Ultrathin Organic Crystals on Graphene for High-Efficiency Phototransistors. <i>Advanced Materials</i> , 2016 , 28, 5200-5	24	109
253	Inch-Size Single Crystal of a Lead-Free Organic-Inorganic Hybrid Perovskite for High-Performance Photodetector. <i>Advanced Functional Materials</i> , 2018 , 28, 1705467	15.6	108
252	High-performance graphene photodetector using interfacial gating. <i>Optica</i> , 2016 , 3, 1066	8.6	104

251	When Nanowires Meet Ultrahigh Ferroelectric Field-High-Performance Full-Depleted Nanowire Photodetectors. <i>Nano Letters</i> , 2016 , 16, 2548-55	11.5	103
250	High-Sensitivity Floating-Gate Phototransistors Based on WS ₂ and MoS ₂ . <i>Advanced Functional Materials</i> , 2016 , 26, 6084-6090	15.6	103
249	Perpendicular Optical Reversal of the Linear Dichroism and Polarized Photodetection in 2D GeAs. <i>ACS Nano</i> , 2018 , 12, 12416-12423	16.7	100
248	Perovskite-Erbium Silicate Nanosheet Hybrid Waveguide Photodetectors at the Near-Infrared Telecommunication Band. <i>Advanced Materials</i> , 2017 , 29, 1604431	24	99
247	Observation of ballistic avalanche phenomena in nanoscale vertical InSe/BP heterostructures. <i>Nature Nanotechnology</i> , 2019 , 14, 217-222	28.7	99
246	Programmable transition metal dichalcogenide homojunctions controlled by nonvolatile ferroelectric domains. <i>Nature Electronics</i> , 2020 , 3, 43-50	28.4	98
245	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, 7399-404	24	91
244	Visible Light-Assisted High-Performance Mid-Infrared Photodetectors Based on Single InAs Nanowire. <i>Nano Letters</i> , 2016 , 16, 6416-6424	11.5	90
243	Ultrafast Dynamic Pressure Sensors Based on Graphene Hybrid Structure. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 24148-24154	9.5	89
242	Near-Infrared Plasmonic 2D Semimetals for Applications in Communication and Biology. <i>Advanced Functional Materials</i> , 2016 , 26, 1793-1802	15.6	88
241	High-Performance Ferroelectric Polymer Side-Gated CdS Nanowire Ultraviolet Photodetectors. <i>Advanced Functional Materials</i> , 2016 , 26, 7690-7696	15.6	87
240	Unipolar barrier photodetectors based on van der Waals heterostructures. <i>Nature Electronics</i> , 2021 , 4, 357-363	28.4	87
239	AsP/InSe Van der Waals Tunneling Heterojunctions with Ultrahigh Reverse Rectification Ratio and High Photosensitivity. <i>Advanced Functional Materials</i> , 2019 , 29, 1900314	15.6	76
238	Negative Photoconductance in van der Waals Heterostructure-Based Floating Gate Phototransistor. <i>ACS Nano</i> , 2018 , 12, 9513-9520	16.7	75
237	A Broadband Fluorographene Photodetector. <i>Advanced Materials</i> , 2017 , 29, 1700463	24	72
236	Photothermal Effect Induced Negative Photoconductivity and High Responsivity in Flexible Black Phosphorus Transistors. <i>ACS Nano</i> , 2017 , 11, 6048-6056	16.7	71
235	Diamond-Based All-Carbon Photodetectors for Solar-Blind Imaging. <i>Advanced Optical Materials</i> , 2018 , 6, 1800068	8.1	71
234	Analysis of temperature dependence of dark current mechanisms for long-wavelength HgCdTe photovoltaic infrared detectors. <i>Journal of Applied Physics</i> , 2009 , 105, 104502	2.5	70

233	Recent Progress on Two-Dimensional Materials. <i>Wuli Huaxue Xuebao/Acta Physico - Chimica Sinica</i> , 2021 , 2108017-0	3.8	69
232	Toward Sensitive Room-Temperature Broadband Detection from Infrared to Terahertz with Antenna-Integrated Black Phosphorus Photoconductor. <i>Advanced Functional Materials</i> , 2017 , 27, 1604414	15.6	68
231	A novel plasmonic resonance sensor based on an infrared perfect absorber. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 205102	3	66
230	Ferroelectric Localized Field-Enhanced ZnO Nanosheet Ultraviolet Photodetector with High Sensitivity and Low Dark Current. <i>Small</i> , 2018 , 14, e1800492	11	65
229	Ferroelectric FET for nonvolatile memory application with two-dimensional MoSe 2 channels. <i>2D Materials</i> , 2017 , 4, 025036	5.9	63
228	Ultrasensitive negative capacitance phototransistors. <i>Nature Communications</i> , 2020 , 11, 101	17.4	63
227	High-Performance Near-Infrared Photodetectors Based on p-Type SnX (X = S, Se) Nanowires Grown via Chemical Vapor Deposition. <i>ACS Nano</i> , 2018 , 12, 7239-7245	16.7	62
226	MoTe p-n Homojunctions Defined by Ferroelectric Polarization. <i>Advanced Materials</i> , 2020 , 32, e1907937	24	60
225	Optoelectronic Properties of Few-Layer MoS FET Gated by Ferroelectric Relaxor Polymer. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 32083-32088	9.5	60
224	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, 084502	2.5	60
223	Controlled Doping of Wafer-Scale PtSe2 Films for Device Application. <i>Advanced Functional Materials</i> , 2019 , 29, 1805614	15.6	60
222	Distinct photocurrent response of individual GaAs nanowires induced by n-type doping. <i>ACS Nano</i> , 2012 , 6, 6005-13	16.7	59
221	128 × 28 long-wavelength/mid-wavelength two-color HgCdTe infrared focal plane array detector with ultralow spectral cross talk. <i>Optics Letters</i> , 2014 , 39, 5184-7	3	58
220	Two-dimensional negative capacitance transistor with polyvinylidene fluoride-based ferroelectric polymer gating. <i>Npj 2D Materials and Applications</i> , 2017 , 1,	8.8	57
219	Scalable integration of indium zinc oxide/photosensitive-nanowire composite thin-film transistors for transparent multicolor photodetectors array. <i>Advanced Materials</i> , 2014 , 26, 2919-24	24	57
218	PtTe -Based Type-II Dirac Semimetal and Its van der Waals Heterostructure for Sensitive Room Temperature Terahertz Photodetection. <i>Small</i> , 2019 , 15, e1903362	11	55
217	Exploring a Polar Two-dimensional Multi-layered Hybrid Perovskite of (C5H11NH3)2(CH3NH3)Pb2I7 for Ultrafast-Responding Photodetection. <i>Laser and Photonics Reviews</i> , 2018 , 12, 1800060	8.3	55
216	Flexible Quasi-2D Perovskite/IGZO Phototransistors for Ultrasensitive and Broadband Photodetection. <i>Advanced Materials</i> , 2020 , 32, e1907527	24	54

215	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	9.5	54
214	Graphene Hybrid Structures for Integrated and Flexible Optoelectronics. <i>Advanced Materials</i> , 2020 , 32, e1902039	24	53
213	Sensitive and Ultrabroadband Phototransistor Based on Two-Dimensional Bi ₂ O ₂ Se Nanosheets. <i>Advanced Functional Materials</i> , 2019 , 29, 1905806	15.6	53
212	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	53
211	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	3.6	52
210	Tailored Engineering of an Unusual (C ₄ H ₉ NH ₃) ₂ (CH ₃ NH ₃) ₂ Pb ₃ Br ₁₀ Two-Dimensional Multilayered Perovskite Ferroelectric for a High-Performance Photodetector. <i>Angewandte Chemie</i> , 2017 , 129, 12318-12322	3.6	52
209	Visible to near-infrared photodetectors based on MoS ₂ vertical Schottky junctions. <i>Nanotechnology</i> , 2017 ,	3.4	51
208	Amorphous Gallium Oxide-Based Gate-Tunable High-Performance Thin Film Phototransistor for Solar-Blind Imaging. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900389	6.4	50
207	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	3.8	49
206	WSe ₂ /GeSe heterojunction photodiode with giant gate tunability. <i>Nano Energy</i> , 2018 , 49, 103-108	17.1	49
205	Sensing Infrared Photons at Room Temperature: From Bulk Materials to Atomic Layers. <i>Small</i> , 2019 , 15, e1904396	11	48
204	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, 5932-8	11	48
203	WSe Photovoltaic Device Based on Intramolecular p-n Junction. <i>Small</i> , 2019 , 15, e1805545	11	48
202	High-Performance Wafer-Scale MoS Transistors toward Practical Application. <i>Small</i> , 2018 , 14, e1803465	11	48
201	Magnetism and Optical Anisotropy in van der Waals Antiferromagnetic Insulator CrOCl. <i>ACS Nano</i> , 2019 , 13, 11353-11362	16.7	46
200	2D materials-based homogeneous transistor-memory architecture for neuromorphic hardware. <i>Science</i> , 2021 , 373, 1353-1358	33.3	46
199	A hybrid surface passivation on HgCdTe long wave infrared detector with in-situ CdTe deposition and high-density hydrogen plasma modification. <i>Applied Physics Letters</i> , 2011 , 99, 091101	3.4	45
198	A Noble Metal Dichalcogenide for High-Performance Field-Effect Transistors and Broadband Photodetectors. <i>Advanced Functional Materials</i> , 2020 , 30, 1907945	15.6	45

197	Study of gain and photoresponse characteristics for back-illuminated separate absorption and multiplication GaN avalanche photodiodes. <i>Journal of Applied Physics</i> , 2014 , 115, 013103	2.5	44
196	Vertically Stacked and Self-Encapsulated van der Waals Heterojunction Diodes Using Two-Dimensional Layered Semiconductors. <i>ACS Nano</i> , 2017 , 11, 10472-10479	16.7	44
195	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	2.4	44
194	Solvent-Based Soft-Patterning of Graphene Lateral Heterostructures for Broadband High-Speed Metal-Semiconductor-Metal Photodetectors. <i>Advanced Materials Technologies</i> , 2017 , 2, 1600241	6.8	43
193	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	3.8	43
192	Gate-Tunable Semiconductor Heterojunctions from 2D/3D van der Waals Interfaces. <i>Nano Letters</i> , 2020 , 20, 2907-2915	11.5	42
191	Enhanced plasmonic resonant excitation in a grating gated field-effect transistor with supplemental gates. <i>Optics Express</i> , 2013 , 21, 1606-14	3.3	42
190	Controllable Growth of Vertical Heterostructure GaTe(x)Se(1-x)/Si by Molecular Beam Epitaxy. <i>ACS Nano</i> , 2015 , 9, 8592-8	16.7	41
189	Ultrahigh Hole Mobility of Sn-Catalyzed GaSb Nanowires for High Speed Infrared Photodetectors. <i>Nano Letters</i> , 2019 , 19, 5920-5929	11.5	41
188	Ultrasensitive Hybrid MoS ₂ -ZnCdSe Quantum Dot Photodetectors with High Gain. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 23667-23672	9.5	40
187	High-quality infrared imaging with graphene photodetectors at room temperature. <i>Nanoscale</i> , 2016 , 8, 16065-72	7.7	40
186	Dark Current Transport and Avalanche Mechanism in HgCdTe Electron-Avalanche Photodiodes. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 1926-1931	2.9	39
185	Gate-tunable rectification inversion and photovoltaic detection in graphene/WSe ₂ heterostructures. <i>Applied Physics Letters</i> , 2016 , 108, 223501	3.4	39
184	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	1.9	38
183	Surface leakage current in 12.5 μ m long-wavelength HgCdTe infrared photodiode arrays. <i>Optics Letters</i> , 2016 , 41, 828-31	3	37
182	Hybrid WSe ₂ -InO Phototransistor with Ultrahigh Detectivity by Efficient Suppression of Dark Currents. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 34489-34496	9.5	37
181	Efficiency enhancement of blue InGaN/GaN light-emitting diodes with an AlGaIn-GaN-AlGaIn electron blocking layer. <i>Journal of Applied Physics</i> , 2012 , 111, 094503	2.5	37
180	Recent Progress on Electrical and Optical Manipulations of Perovskite Photodetectors. <i>Advanced Science</i> , 2021 , 8, e2100569	13.6	37

- 179 Light-Driven WSe-ZnO Junction Field-Effect Transistors for High-Performance Photodetection. *Advanced Science*, **2020**, 7, 1901637 13.6 36
- 178 Simulation and optimization of GaN-based metal-oxide-semiconductor high-electron-mobility-transistor using field-dependent drift velocity model. *Journal of Applied Physics*, **2007**, 102, 034502 2.5 35
- 177 Side-Gated InO Nanowire Ferroelectric FETs for High-Performance Nonvolatile Memory Applications. *Advanced Science*, **2016**, 3, 1600078 13.6 34
- 176 Room-Temperature Single-Photon Detector Based on Single Nanowire. *Nano Letters*, **2018**, 18, 5439-5445 11.5 34
- 175 Air-Stable Low-Symmetry Narrow-Bandgap 2D Sulfide Niobium for Polarization Photodetection. *Advanced Materials*, **2020**, 32, e2005037 24 34
- 174 Blackbody-sensitive room-temperature infrared photodetectors based on low-dimensional tellurium grown by chemical vapor deposition. *Science Advances*, **2021**, 7, 14.3 34
- 173 Ferroelectric polymer tuned two dimensional layered MoTe2 photodetector. *RSC Advances*, **2016**, 6, 87416-87421 11.7 34
- 172 Ambipolar GrapheneQuantum Dot Phototransistors with CMOS Compatibility. *Advanced Optical Materials*, **2018**, 6, 1800985 8.1 34
- 171 Symmetric Ultrafast Writing and Erasing Speeds in Quasi-Nonvolatile Memory via van der Waals Heterostructures. *Advanced Materials*, **2019**, 31, e1808035 24 33
- 170 Graphene-based terahertz tunable plasmonic directional coupler. *Applied Physics Letters*, **2014**, 105, 081903 19.3 33
- 169 Demonstration and dynamic analysis of trapping of hot electrons at gate edge model for current collapse and gate lag in GaN-based high-electron-mobility transistor including self-heating effect. *Applied Physics Letters*, **2006**, 89, 243501 3.4 33
- 168 All-in-one two-dimensional retinomorphing hardware device for motion detection and recognition. *Nature Nanotechnology*, **2021**, 28.7 33
- 167 Multimechanism Synergistic Photodetectors with Ultrabroad Spectrum Response from 375 nm to 10 μ m. *Advanced Science*, **2019**, 6, 1901050 13.6 32
- 166 Characterization of atomic defects on the photoluminescence in two-dimensional materials using transmission electron microscope. *Information Materials*, **2019**, 1, 85-97 23.1 32
- 165 Wafer-scale arrayed p-n junctions based on few-layer epitaxial GaTe. *Nano Research*, **2015**, 8, 3332-3341 10 32
- 164 Time-Tailoring van der Waals Heterostructures for Human Memory System Programming. *Advanced Science*, **2019**, 6, 1901072 13.6 31
- 163 Plasmon resonant excitation in grating-gated AlN barrier transistors at terahertz frequency. *Applied Physics Letters*, **2012**, 100, 123501 3.4 30
- 162 Fabrication of 1D Te/2D ReS Mixed-Dimensional van der Waals Heterojunction for High-Performance Phototransistor. *ACS Nano*, **2021**, 15, 3241-3250 16.7 30

161	Highly Polarized Photoelectrical Response in vdW ZrS ₃ Nanoribbons. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900419	6.4	29
160	Ultrabroadband Photodetectors up to 10.6 μ m Based on 2D Fe O Nanosheets. <i>Advanced Materials</i> , 2020 , 32, e2002237	24	29
159	Improved performance of HgCdTe infrared detector focal plane arrays by modulating light field based on photonic crystal structure. <i>Journal of Applied Physics</i> , 2014 , 115, 184504	2.5	29
158	Photoresponse study of visible blind GaN/AlGaN p-i-n ultraviolet photodetector. <i>Optical and Quantum Electronics</i> , 2011 , 42, 755-764	2.4	29
157	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	2.9	28
156	Dependence of dark current and photoresponse characteristics on polarization charge density for GaN-based avalanche photodiodes. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 405102	3	28
155	Amorphous HgCdTe infrared photoconductive detector with high detectivity above 200 K. <i>Applied Physics Letters</i> , 2011 , 99, 113508	3.4	28
154	Dark current simulation of InP/In _{0.53} Ga _{0.47} As/InP p-i-n photodiode. <i>Optical and Quantum Electronics</i> , 2008 , 40, 1261-1266	2.4	28
153	Parameter determination from resistance-voltage curve for long-wavelength HgCdTe photodiode. <i>Journal of Applied Physics</i> , 2006 , 100, 084503	2.5	28
152	Ultrasensitive Mid-wavelength Infrared Photodetection Based on a Single InAs Nanowire. <i>ACS Nano</i> , 2019 , 13, 3492-3499	16.7	28
151	Artificial control of in-plane anisotropic photoelectricity in monolayer MoS ₂ . <i>Applied Materials Today</i> , 2019 , 15, 203-211	6.6	27
150	Independent Band Modulation in 2D van der Waals Heterostructures via a Novel Device Architecture. <i>Advanced Science</i> , 2018 , 5, 1800237	13.6	27
149	Fractal H-shaped plasmonic nanocavity. <i>Nanotechnology</i> , 2013 , 24, 205702	3.4	27
148	A Dual-Gate MoS Photodetector Based on Interface Coupling Effect. <i>Small</i> , 2020 , 16, e1904369	11	27
147	SWCNT-MoS-SWCNT Vertical Point Heterostructures. <i>Advanced Materials</i> , 2017 , 29, 1604469	24	26
146	Novel Type-II InAs/AlSb Core/Shell Nanowires and Their Enhanced Negative Photocurrent for Efficient Photodetection. <i>Advanced Functional Materials</i> , 2018 , 28, 1705382	15.6	26
145	Anomalous Broadband Spectrum Photodetection in 2D Rhenium Disulfide Transistor. <i>Advanced Optical Materials</i> , 2019 , 7, 1901115	8.1	26
144	Polarity inversion and coupling of laser beam induced current in As-doped long-wavelength HgCdTe infrared detector pixel arrays: Experiment and simulation. <i>Applied Physics Letters</i> , 2012 , 101, 181108	3.4	26

143	Broadband Bi ₂ O ₂ Se Photodetectors from Infrared to Terahertz. <i>Advanced Functional Materials</i> , 2021 , 31, 2009554	15.6	26
142	A Colloidal-Quantum-Dot Infrared Photodiode with High Photoconductive Gain. <i>Small</i> , 2018 , 14, e1803158	15.8	25
141	High performance top-gated ferroelectric field effect transistors based on two-dimensional ZnO nanosheets. <i>Applied Physics Letters</i> , 2017 , 110, 043505	3.4	24
140	NbSiTe: A Stable Narrow-Gap Two-Dimensional Material with Ambipolar Transport and Mid-Infrared Response. <i>ACS Nano</i> , 2019 , 13, 10705-10710	16.7	24
139	Performance Optimization of InSb Infrared Focal-Plane Arrays with Diffractive Microlenses. <i>Journal of Electronic Materials</i> , 2014 , 43, 2795-2801	1.9	24
138	The plasmonic resonant absorption in GaN double-channel high electron mobility transistors. <i>Applied Physics Letters</i> , 2011 , 99, 063502	3.4	24
137	A versatile photodetector assisted by photovoltaic and bolometric effects. <i>Light: Science and Applications</i> , 2020 , 9, 160	16.7	24
136	Ultrahigh photoresponsivity MoS photodetector with tunable photocurrent generation mechanism. <i>Nanotechnology</i> , 2018 , 29, 485204	3.4	24
135	Recent progress on integrating two-dimensional materials with ferroelectrics for memory devices and photodetectors. <i>Chinese Physics B</i> , 2017 , 26, 037106	1.2	23
134	Modelling of illuminated current-voltage characteristics to evaluate leakage currents in long wavelength infrared mercury cadmium telluride photovoltaic detectors. <i>Journal of Applied Physics</i> , 2014 , 116, 184503	2.5	23
133	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	17.1	23
132	Etching Techniques in 2D Materials. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900064	6.8	22
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