

Solution-processed semiconductors for next-generation

Nature Reviews Materials

2,

DOI: [10.1038/natrevmats.2016.100](https://doi.org/10.1038/natrevmats.2016.100)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Bilayer PbS Quantum Dots for High-Performance Photodetectors. <i>Advanced Materials</i> , 2017, 29, 1702055.	11.1	189
2	Compound Quantum Dot-Perovskite Optical Absorbers on Graphene Enhancing Short-Wave Infrared Photodetection. <i>ACS Nano</i> , 2017, 11, 5547-5557.	7.3	87
3	Improved performance of photoconductive gain hybrid UV detector by trap state engineering of ZnO nanoparticles. <i>Journal of Applied Physics</i> , 2017, 122, .	1.1	20
4	An Efficient Method for the Surface Functionalization of Luminescent Quantum Dots with Lipoic Acid Based Ligands. <i>European Journal of Inorganic Chemistry</i> , 2017, 2017, 5143-5151.	1.0	12
5	Hybrid Organic-Inorganic Perovskite Photodetectors. <i>Small</i> , 2017, 13, 1702107.	5.2	334
6	A Review on Organic-Inorganic Halide Perovskite Photodetectors: Device Engineering and Fundamental Physics. <i>Advanced Materials</i> , 2017, 29, 1605242.	11.1	590
7	High-Efficiency Aqueous-Processed Polymer/CdTe Nanocrystals Planar Heterojunction Solar Cells with Optimized Band Alignment and Reduced Interfacial Charge Recombination. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 31345-31351.	4.0	29
8	Polymer:Fullerene Bimolecular Crystals for Near-Infrared Spectroscopic Photodetectors. <i>Advanced Materials</i> , 2017, 29, 1702184.	11.1	150
9	Speed Limit for Triplet-Exciton Transfer in Solid-State PbS Nanocrystal-Sensitized Photon Upconversion. <i>ACS Nano</i> , 2017, 11, 7848-7857.	7.3	130
10	Capillary-Bridge Mediated Assembly of Conjugated Polymer Arrays toward Organic Photodetectors. <i>Advanced Functional Materials</i> , 2017, 27, 1701347.	7.8	53
11	Exploring the charge transfer nature and electro-optical properties of anthracene based sensitizers @TiO ₂ cluster. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2017, 80, 239-246.	2.7	16
12	Near-Infrared and Short-Wavelength Infrared Photodiodes Based on Dye-Perovskite Composites. <i>Advanced Functional Materials</i> , 2017, 27, 1702485.	7.8	59
13	Density functional theory study on the boron and phosphorus doping of germanium quantum dots. <i>RSC Advances</i> , 2017, 7, 50935-50941.	1.7	1
14	Meniscus-assisted solution printing of large-grained perovskite films for high-efficiency solar cells. <i>Nature Communications</i> , 2017, 8, 16045.	5.8	359
15	Ultralow Self-Doping in Two-dimensional Hybrid Perovskite Single Crystals. <i>Nano Letters</i> , 2017, 17, 4759-4767.	4.5	251
16	N-type 2D Organic Single Crystals for High-Performance Organic Field-Effect Transistors and Near-Infrared Phototransistors. <i>Advanced Materials</i> , 2018, 30, e1706260.	11.1	145
17	Photomultiplication Type Organic Photodetectors with Broadband and Narrowband Response Ability. <i>Advanced Optical Materials</i> , 2018, 6, 1800001.	3.6	98
18	High-Speed, Sensitive Planar Perovskite Photodetector Based on Interdigitated Pt and Au Electrodes. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700822.	0.8	12

#	ARTICLE	IF	CITATIONS
19	Detecting Single Photons Using Capacitive Coupling of Single Quantum Dots. ACS Photonics, 2018, 5, 2008-2021.	3.2	3
20	A Solar Transistor and Photoferroelectric Memory. Advanced Functional Materials, 2018, 28, 1707099.	7.8	23
21	Prediction of Novel <i>h</i> -Type Transparent Conductors in Layered Double Perovskites: A First-Principles Study. Advanced Functional Materials, 2018, 28, 1800332.	7.8	49
22	Sensitive, fast, stable, and broadband polymer photodetector with introducing TiO ₂ nanocrystal trap states. Organic Electronics, 2018, 59, 63-68.	1.4	11
23	Low Work Function Surface Modifiers for Solution-Processed Electronics: A Review. Advanced Materials Interfaces, 2018, 5, 1701404.	1.9	56
24	Flexible Near-Infrared Plastic Phototransistors with Conjugated Polymer Gate-Sensing Layers. Advanced Functional Materials, 2018, 28, 1800704.	7.8	36
25	Ultrahigh-Performance Self-Powered Flexible Double-Twisted Fibrous Broadband Perovskite Photodetector. Advanced Materials, 2018, 30, e1706986.	11.1	177
26	Recent Advances in Halide Perovskite Photodetectors Based on Different Dimensional Materials. Advanced Optical Materials, 2018, 6, 1701302.	3.6	107
27	All-printed full-color pixel organic photodiode array with a single active layer. Organic Electronics, 2018, 56, 139-145.	1.4	55
28	Interface Engineering of High-Performance Perovskite Photodetectors Based on PVP/SnO ₂ Electron Transport Layer. ACS Applied Materials & Interfaces, 2018, 10, 6505-6512.	4.0	37
29	PbSe Nanorod Field-Effect Transistors: Room- and Low-Temperature Performance. Advanced Electronic Materials, 2018, 4, 1700580.	2.6	13
30	Low-Bandgap Methylammonium-Rubidium Cation Sn-Rich Perovskites for Efficient Ultraviolet-Visible-Near Infrared Photodetectors. Advanced Functional Materials, 2018, 28, 1706068.	7.8	70
31	Fully Digitally Printed Image Sensor Based on Organic Photodiodes. Advanced Optical Materials, 2018, 6, 1701108.	3.6	39
32	Solution Processable 1D Fullerene C ₆₀ Crystals for Visible Spectrum Photodetectors. Small, 2018, 14, e1703624.	5.2	16
33	High Performance BiOCl Nanosheets/TiO ₂ Nanotube Arrays Heterojunction UV Photodetector: The Influences of Self-Induced Inner Electric Fields in the BiOCl Nanosheets. Advanced Functional Materials, 2018, 28, 1707178.	7.8	337
34	Near-infrared-absorbing Photodetectors Based on Naphtho[1,3,2]oxazaborinine-type Dibenzo-BODIPY Dyes. Chemistry Letters, 2018, 47, 300-303.	0.7	8
35	Semiconductor:Insulator Blends for Speed Enhancement in Organic Photodiodes. Advanced Electronic Materials, 2018, 4, 1700345.	2.6	20
36	Solution-processed fabrication of perfectly (000)-oriented lead selenide thin films. Materials Letters, 2018, 215, 191-194.	1.3	3

#	ARTICLE	IF	CITATIONS
37	Excitonic pathway to photoinduced magnetism in colloidal nanocrystals with nonmagnetic dopants. <i>Nature Nanotechnology</i> , 2018, 13, 145-151.	15.6	64
38	Regular Aligned 1D Single-Crystalline Supramolecular Arrays for Photodetectors. <i>Small</i> , 2018, 14, 1701861.	5.2	18
39	High-Performance Single-Crystalline Perovskite Thin-Film Photodetector. <i>Advanced Materials</i> , 2018, 30, 1704333.	11.1	225
40	Recent advances in organic near-infrared photodiodes. <i>Journal of Materials Chemistry C</i> , 2018, 6, 3499-3513.	2.7	168
41	Transparent, Flexible Silicon Nanostructured Wire Networks with Seamless Junctions for High-Performance Photodetector Applications. <i>ACS Nano</i> , 2018, 12, 4727-4735.	7.3	51
42	Water-soluble fluorescent unimolecular micelles: ultra-small size, tunable fluorescence emission from the visible to NIR region and enhanced biocompatibility for <i>in vitro</i> and <i>in vivo</i> bioimaging. <i>Chemical Communications</i> , 2018, 54, 6252-6255.	2.2	20
43	High-Performance Photodetectors Based on Single All-Inorganic CsPbBr ₃ Perovskite Microwire. <i>ACS Photonics</i> , 2018, 5, 2113-2119.	3.2	61
44	Low noise ultraviolet photodetector with over 100% enhanced lifetime based on polyfluorene copolymer and ZnO nanoparticles. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46533.	1.3	8
45	High Performance All-Polymer Photodetector Comprising a Donor-Acceptor-Acceptor Structured Indacenodithiophene-Bithieno[3,4-c]Pyroretetrone Copolymer. <i>ACS Macro Letters</i> , 2018, 7, 395-400.	2.3	43
46	Achieving ordered and stable binary metal perovskite via strain engineering. <i>Nano Energy</i> , 2018, 48, 117-127.	8.2	60
47	Squaraine Dye for a Visibly Transparent All-Organic Optical Upconversion Device with Sensitivity at 1000 nm. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 11063-11069.	4.0	47
48	Perovskite/Colloidal Quantum Dot Tandem Solar Cells: Theoretical Modeling and Monolithic Structure. <i>ACS Energy Letters</i> , 2018, 3, 869-874.	8.8	77
49	How methoxy groups change nature of the thiophene based heterocyclic chalcones from p-channel to ambipolar transport semiconducting materials. <i>Journal of King Saud University - Science</i> , 2018, 30, 458-465.	1.6	7
50	2D Organic Materials for Optoelectronic Applications. <i>Advanced Materials</i> , 2018, 30, 1702415.	11.1	266
51	On the Working Mechanisms of Solid-State Double-Layer-Dielectric-Based Organic Field-Effect Transistors and Their Implication for Sensors. <i>Advanced Electronic Materials</i> , 2018, 4, 1700326.	2.6	7
52	Tunable Förster Resonance Energy Transfer in Colloidal Nanoparticles Composed of Polycaprolactone-Tethered Donors and Acceptors: Enhanced Near-Infrared Emission and Compatibility for In Vitro and In Vivo Bioimaging. <i>Advanced Functional Materials</i> , 2018, 28, 1705226.	7.8	18
53	Interface engineering in solid state Li metal batteries by quasi-2D hybrid perovskites. <i>Journal of Materials Chemistry A</i> , 2018, 6, 20896-20903.	5.2	32
54	Non-Fullerene-Based Printed Organic Photodiodes with High Responsivity and Megahertz Detection Speed. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 42733-42739.	4.0	34

#	ARTICLE	IF	CITATIONS
55	Narrowband Perovskite Photodetector-Based Image Array for Potential Application in Artificial Vision. <i>Nano Letters</i> , 2018, 18, 7628-7634.	4.5	180
56	Infrared Cavity-Enhanced Colloidal Quantum Dot Photovoltaics Employing Asymmetric Multilayer Electrodes. <i>ACS Energy Letters</i> , 2018, 3, 2908-2913.	8.8	20
57	Prospects of colour selective organic photodiodes. <i>Journal of Materials Chemistry C</i> , 2018, 6, 13084-13100.	2.7	39
58	Recent Progress on Photomultiplication Type Organic Photodetectors. <i>Laser and Photonics Reviews</i> , 2019, 13, 1800204.	4.4	190
59	Emerging Design and Characterization Guidelines for Polymer-Based Infrared Photodetectors. <i>Accounts of Chemical Research</i> , 2018, 51, 3144-3153.	7.6	145
60	Anomalous Exciton Quenching in Organic Semiconductors in the Low-Yield Limit. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 6144-6148.	2.1	6
61	Facile Nanogold-Perovskite Enabling Ultrasensitive Flexible Broadband Photodetector with pW Scale Detection Limit. <i>Advanced Optical Materials</i> , 2018, 6, 1800996.	3.6	14
62	All-Inorganic Perovskite Quantum Dot-Monolayer MoS ₂ Mixed-Dimensional van der Waals Heterostructure for Ultrasensitive Photodetector. <i>Advanced Science</i> , 2018, 5, 1801219.	5.6	157
63	Surface Effect on 2D Hybrid Perovskite Crystals: Perovskites Using an Ethanolamine Organic Layer as an Example. <i>Advanced Materials</i> , 2018, 30, e1804372.	11.1	34
64	Ambipolar Graphene-Quantum Dot Phototransistors with CMOS Compatibility. <i>Advanced Optical Materials</i> , 2018, 6, 1800985.	3.6	50
65	Bandgap Engineering of Single-Crystalline Perovskite Arrays for High-Performance Photodetectors. <i>Advanced Functional Materials</i> , 2018, 28, 1804349.	7.8	66
66	CuInSe ₂ Quantum Dots Hybrid Hole Transfer Layer for Halide Perovskite Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 35656-35663.	4.0	30
67	Synthetic Approach To Achieve a Thin-Film Red-Selective Polymer Photodiode: Difluorobenzothiadiazole-Based Donor-Acceptor Polymer with Enhanced Space Charge Carriers. <i>Macromolecules</i> , 2018, 51, 8241-8247.	2.2	13
68	The Role of Dielectric Screening in Organic Shortwave Infrared Photodiodes for Spectroscopic Image Sensing. <i>Advanced Functional Materials</i> , 2018, 28, 1805738.	7.8	79
69	Reproducible, High Performance Fully Printed Photodiodes on Flexible Substrates through the Use of a Polyethylenimine Interlayer. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 32380-32386.	4.0	27
70	Two-Dimensional Halide Perovskites for Emerging New- Generation Photodetectors. , 0, , .		3
71	Molecular engineering of perovskite photodetectors: recent advances in materials and devices. <i>Molecular Systems Design and Engineering</i> , 2018, 3, 702-716.	1.7	33
72	Perovskite Quantum Dots Embedded Composite Films Enhancing UV Response of Silicon Photodetectors for Broadband and Solar-Blind Light Detection. <i>Advanced Optical Materials</i> , 2018, 6, 1800077.	3.6	60

#	ARTICLE	IF	CITATIONS
73	Resolving the Core and the Surface of CdSe Quantum Dots and Nanoplatelets Using Dynamic Nuclear Polarization Enhanced PASS-PIETA NMR Spectroscopy. ACS Central Science, 2018, 4, 1113-1125.	5.3	46
74	High-sensitivity broadband colloidal quantum dot heterojunction photodetector for night-sky radiation. Journal of Alloys and Compounds, 2018, 764, 446-451.	2.8	19
75	All-Solution-Processed Metal Oxide/Chalcogenide Hybrid Full-Color Phototransistors with Multistacked Functional Layers and Composition-Gradient Heterointerface. Advanced Optical Materials, 2018, 6, 1800196.	3.6	11
76	High Performance and Stable All-Inorganic Metal Halide Perovskite-Based Photodetectors for Optical Communication Applications. Advanced Materials, 2018, 30, e1803422.	11.1	342
77	Low-Bandgap Terpolymers for High-Gain Photodiodes with High Detectivity and Responsivity from 300-nm to 1600-nm. ChemistrySelect, 2018, 3, 7385-7393.	0.7	6
78	Investigation of the stability for self-powered CsPbBr ₃ perovskite photodetector with an all-inorganic structure. Solar Energy Materials and Solar Cells, 2018, 187, 69-75.	3.0	70
79	Ligand and Solvent Effects on Hole Transport in Colloidal Quantum Dot Assemblies for Electronic Devices. ACS Applied Nano Materials, 2018, 1, 5217-5225.	2.4	22
80	Size-Dependent Band-Gap and Molar Absorption Coefficients of Colloidal CuInS ₂ Quantum Dots. ACS Nano, 2018, 12, 8350-8361.	7.3	122
81	Electron-Conducting PbS Nanocrystal Superlattices with Long-Range Order Enabled by Terthiophene Molecular Linkers. ACS Applied Materials & Interfaces, 2018, 10, 24708-24714.	4.0	12
82	Energy Level Alignment of Molybdenum Oxide on Colloidal Lead Sulfide (PbS) Thin Films for Optoelectronic Devices. ACS Applied Materials & Interfaces, 2018, 10, 24981-24986.	4.0	3
83	High speed solution-processed hybrid perovskite photodetectors with low dark current enabled by a low temperature metal oxide interlayer. Semiconductor Science and Technology, 2018, 33, 094004.	1.0	14
84	Organic Field-Effect Transistor for Energy-Related Applications: Low-Power-Consumption Devices, Near-Infrared Phototransistors, and Organic Thermoelectric Devices. Advanced Energy Materials, 2018, 8, 1801003.	10.2	95
85	Influence of the Post-Synthesis Annealing on Device Performance of PbS Quantum Dot Photoconductive Detectors. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1800408.	0.8	4
86	Halide Perovskite Nanopillar Photodetector. ACS Nano, 2018, 12, 8564-8571.	7.3	70
87	Flexible Polymer-Carbon Nanotube Composite with High-Response Stability for Wearable Thermal Imaging. ACS Applied Materials & Interfaces, 2018, 10, 26604-26609.	4.0	29
88	Perovskite nanowires find an edge. Nature Electronics, 2018, 1, 380-381.	13.1	5
89	Recent advances in organic sensors for health self-monitoring systems. Journal of Materials Chemistry C, 2018, 6, 8569-8612.	2.7	110
90	Solvothermal Synthesis of Ultrathin Cesium Lead Halide Perovskite Nanoplatelets with Tunable Lateral Sizes and Their Reversible Transformation into Cs ₄ PbBr ₆ Nanocrystals. Chemistry of Materials, 2018, 30, 3714-3721.	3.2	108

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91	Solution phase surface functionalization of PbS nanoparticles with organic ligands for single-step deposition of p-type layer of quantum dot solar cells. <i>Applied Surface Science</i> , 2018, 459, 562-571.	3.1	18
92	Surface Engineering of Quantum Dots for Remarkably High Detectivity Photodetectors. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3285-3294.	2.1	31
93	Photoelectric Detectors Based on Inorganic p-Type Semiconductor Materials. <i>Advanced Materials</i> , 2018, 30, e1706262.	11.1	344
94	Solution Processed Metal Oxide High- κ Dielectrics for Emerging Transistors and Circuits. <i>Advanced Materials</i> , 2018, 30, e1706364.	11.1	158
95	Colloidal Nanocrystals as a Platform for Rapid Screening of Charge Trap Passivating Molecules for Metal Halide Perovskite Thin Films. <i>Chemistry of Materials</i> , 2018, 30, 4515-4526.	3.2	19
96	Novel p-Type Wide Bandgap Manganese Oxide Quantum Dots Operating at Deep UV Range for Optoelectronic Devices. <i>Advanced Optical Materials</i> , 2019, 7, 1900801.	3.6	35
97	Real time observation of photo-instability of ternary-halide mixed $\text{CH}_3\text{NH}_3\text{Pb}(\text{Br}_{1-x}\text{Cl}_x)_3$ perovskite: Preferential diffusion of small halide ions. <i>Journal of Alloys and Compounds</i> , 2019, 808, 151716.	2.8	5
98	Polarization-Driven Self-Powered Photodetection in a Single-Phase Biaxial Hybrid Perovskite Ferroelectric. <i>Angewandte Chemie</i> , 2019, 131, 14646-14650.	1.6	28
99	Polarization-Driven Self-Powered Photodetection in a Single-Phase Biaxial Hybrid Perovskite Ferroelectric. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 14504-14508.	7.2	114
100	Excitation dynamics of $\text{MAPb}(\text{I}_{1-x}\text{Br}_x)_3$ during phase separation by photoirradiation: Evidence of sink, band filling, and Br-Rich phase coarsening. <i>Journal of Alloys and Compounds</i> , 2019, 806, 1180-1187.	2.8	7
101	Electronics from solution-processed 2D semiconductors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 12835-12861.	2.7	24
102	Reduced Efficiency Roll-Off and Improved Stability of Mixed 2D/3D Perovskite Light Emitting Diodes by Balancing Charge Injection. <i>Advanced Functional Materials</i> , 2019, 29, 1904101.	7.8	93
103	Cocrystal Engineering: A Collaborative Strategy toward Functional Materials. <i>Advanced Materials</i> , 2019, 31, e1902328.	11.1	245
104	Photo-Driven Ion Transport for a Photodetector Based on an Asymmetric Carbon Nitride Nanotube Membrane. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 12574-12579.	7.2	75
105	Photo-Driven Ion Transport for a Photodetector Based on an Asymmetric Carbon Nitride Nanotube Membrane. <i>Angewandte Chemie</i> , 2019, 131, 12704-12709.	1.6	8
106	All-solution-processed Si films with broadband and omnidirectional light absorption. <i>Nanotechnology</i> , 2019, 30, 405202.	1.3	1
107	Increasing responsivity and air stability of PbS colloidal quantum dot photoconductors with iodine surface ligands. <i>Nanotechnology</i> , 2019, 30, 405204.	1.3	18
108	Functional Oxides for Photoneuromorphic Engineering: Toward a Solar Brain. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900471.	1.9	31

#	ARTICLE	IF	CITATIONS
109	Carbon Nanotube-Perovskite Composites for Ultrasensitive Broadband Photodiodes. ACS Applied Nano Materials, 2019, 2, 4974-4982.	2.4	18
110	Greenâ€Sensitive Phototransistor Based on Solutionâ€Processed 2D nâ€Type Organic Single Crystal. Advanced Electronic Materials, 2019, 5, 1900478.	2.6	15
111	See-through metal oxide frameworks for transparent photovoltaics and broadband photodetectors. Nano Energy, 2019, 64, 103952.	8.2	35
112	Carbon Materials in Perovskite Solar Cells: Prospects and Future Challenges. Energy and Environmental Materials, 2019, 2, 107-118.	7.3	72
113	Uncooled Short-Wave Infrared Sensor Based on PbS Quantum Dots Using ZnO NPs. Nanomaterials, 2019, 9, 926.	1.9	18
114	Achieving Infrared Detection by All-Si Plasmonic Hot-Electron Detectors with High Detectivity. ACS Nano, 2019, 13, 8433-8441.	7.3	47
115	Near-infrared absorbing cyanine dyes for all-organic optical upconversion devices. Organic Electronics, 2019, 74, 96-102.	1.4	8
117	2D Perovskites with Giant Excitonic Optical Nonlinearities for Highâ€Performance Subâ€Bandgap Photodetection. Advanced Materials, 2019, 31, e1904155.	11.1	70
118	Spectroscopic ellipsometry study of FAx/MA$1-x$/PbI3 hybrid perovskite single crystals. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2019, 37, .	0.6	7
119	Giant bulk photovoltaic effect in solar cell architectures with ultra-wide bandgap Ga$2O_3$ transparent conducting electrodes. Materials Today Energy, 2019, 14, 100350.	2.5	17
120	Ternary diagrams of the phase, optical bandgap energy and photoluminescence of mixed-halide perovskites. Acta Materialia, 2019, 181, 460-469.	3.8	14
121	Air exposure oxidation and photooxidation of solution-phase treated PbS quantum dot thin films and solar cells. Solar Energy Materials and Solar Cells, 2019, 203, 110163.	3.0	11
122	Direct Wavelength-Selective Optical and Electron-Beam Lithography of Functional Inorganic Nanomaterials. ACS Nano, 2019, 13, 13917-13931.	7.3	77
123	Auâ€PbS coreâ€shell nanorods for plasmon-enhanced near-infrared photodetection. Journal of Materials Science, 2019, 54, 14720-14727.	1.7	8
124	A Highly Responsive Organic Image Sensor Based on a Twoâ€Terminal Organic Photodetector with Photomultiplication. Advanced Materials, 2019, 31, e1903687.	11.1	123
125	UVâ€Ozone Modified Solâ€Gel Processed ZnO for Improved Diketopyrrolopyrrole-Based Hybrid Photodetectors. ACS Applied Electronic Materials, 2019, 1, 2455-2462.	2.0	16
126	Freestanding Polymer Assembly Conductor by Contact-Free Annealing. ACS Applied Polymer Materials, 2019, 1, 3196-3202.	2.0	0
127	One-Step Coating Processed Phototransistors Enabled by Phase Separation of Semiconductor and Dielectric Blend Film. Micromachines, 2019, 10, 716.	1.4	5

#	ARTICLE	IF	CITATIONS
128	Dual-Emitting Dot-in-Bulk CdSe/CdS Nanocrystals with Highly Emissive Core- and Shell-Based Triions Sharing the Same Resident Electron. <i>Nano Letters</i> , 2019, 19, 8846-8854.	4.5	6
129	High-Pressure Structural Change in the Ferroelectric Layered Perovskite $Sr_{1-x}Bi_xTi_2O_{7-x}$	1.1	8
130	Diketopyrrolopyrrole-Polymer Meets Thiolâ€“Ene Click Chemistry: A Cross-Linked Acceptor for Thermally Stable Near-Infrared Photodetectors. <i>Chemistry of Materials</i> , 2019, 31, 7657-7665.	3.2	20
131	Hybrid plasmonic gold-nanorodâ€“platinum short-wave infrared photodetectors with fast response. <i>Nanoscale</i> , 2019, 11, 18124-18131.	2.8	7
132	Ultrasensitive, Superhigh Signal-to-Noise Ratio, Self-Powered Solar-Blind Photodetector Based on In_2O_3 / Ga_2O_3 / $p-CuSCN$ Coreâ€“Shell Microwire Heterojunction. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35105-35114.	4.0	161
133	Solution-Processed Phototransistors Combining Organic Absorber and Charge Transporting Oxide for Visible to Infrared Light Detection. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 36880-36885.	4.0	46
134	Achieving High-Quality Snâ€“Pb Perovskite Films on Complementary Metal-Oxide-Semiconductor-Compatible Metal/Silicon Substrates for Efficient Imaging Array. <i>ACS Nano</i> , 2019, 13, 11800-11808.	7.3	40
135	Deciphering photocarrier dynamics for tuneable high-performance perovskite-organic semiconductor heterojunction phototransistors. <i>Nature Communications</i> , 2019, 10, 4475.	5.8	49
136	Electrical-Field-Driven Tunable Spectral Responses in a Broadband-Absorbing Perovskite Photodiode. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 39018-39025.	4.0	8
137	Stable Colloidal Quantum Dot Inks Enable Inkjet-Printed High-Sensitivity Infrared Photodetectors. <i>ACS Nano</i> , 2019, 13, 11988-11995.	7.3	99
138	The Role of Chloride Incorporation in Leadâ€“Free 2D Perovskite $(BA)_2SnI_4$: Morphology, Photoluminescence, Phase Transition, and Charge Transport. <i>Advanced Science</i> , 2019, 6, 1802019.	5.6	42
139	Room temperature growth of $CH_3NH_3PbCl_3$ single crystals by solvent evaporation method. <i>CrystEngComm</i> , 2019, 21, 656-661.	1.3	45
140	Enhancing the performance of photomultiplication-type organic photodetectors using solution-processed ZnO as an interfacial layer. <i>Journal of Materials Chemistry C</i> , 2019, 7, 1544-1550.	2.7	36
141	All-inorganic lead-free perovskites for optoelectronic applications. <i>Materials Chemistry Frontiers</i> , 2019, 3, 365-375.	3.2	133
142	Organicâ€“Inorganic Hybrid Perovskite Single Crystals: Crystallization, Molecular Structures, and Bandgap Engineering. <i>ChemNanoMat</i> , 2019, 5, 278-289.	1.5	29
143	Ultrastable Luminescent Hybrid Bromide Perovskite@MOF Nanocomposites for the Degradation of Organic Pollutants in Water. <i>ACS Applied Nano Materials</i> , 2019, 2, 1333-1340.	2.4	102
144	Dark Current Reduction Strategy via a Layer-By-Layer Solution Process for a High-Performance All-Polymer Photodetector. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 8350-8356.	4.0	64
145	Ultrafast Energy Transfer of Both Bright and Dark Excitons in 2D van der Waals Heterostructures Beyond Dipolar Coupling. <i>ACS Nano</i> , 2019, 13, 2341-2348.	7.3	44

#	ARTICLE	IF	CITATIONS
146	Organic crystalline materials in flexible electronics. <i>Chemical Society Reviews</i> , 2019, 48, 1492-1530.	18.7	314
147	Recent progress on highly sensitive perovskite photodetectors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 1741-1791.	2.7	353
148	Nanostructured Back Reflectors for Efficient Colloidal Quantum-Dot Infrared Optoelectronics. <i>Advanced Materials</i> , 2019, 31, e1901745.	11.1	49
149	Inkjet printed organic detectors with flat responsivity up to the NIR and inherent UV optical filtering. <i>Synthetic Metals</i> , 2019, 254, 92-96.	2.1	3
150	Strategies toward High-Performance Solution-Processed Lateral Photodetectors. <i>Advanced Materials</i> , 2019, 31, e1901473.	11.1	45
151	On understanding bandgap bowing and optoelectronic quality in Pb-Sn alloy hybrid perovskites. <i>Journal of Materials Chemistry A</i> , 2019, 7, 16285-16293.	5.2	64
152	Atomic Layer Dependence of Shear Modulus in a Two-Dimensional Single-Crystal Organic-Inorganic Hybrid Perovskite. <i>Journal of Physical Chemistry C</i> , 2019, 123, 15251-15257.	1.5	13
153	Recent advances on organic-inorganic hybrid perovskite photodetectors with fast response. <i>Informa-Materials</i> , 2019, 1, 164-182.	8.5	61
154	High-Performance Visible-Light Photodetectors built on 2D-Nanoplate-Assembled Large-Scale Bil ₃ Films. <i>Advanced Electronic Materials</i> , 2019, 5, 1900159.	2.6	20
155	Single-crystalline lead halide perovskite wafers for high performance photodetectors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8357-8363.	2.7	33
156	Solution-Processed Organic Optical Upconversion Device. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 23428-23435.	4.0	17
157	Achieving efficient organic solar cells and broadband photodetectors via simple compositional tuning of ternary blends. <i>Nano Energy</i> , 2019, 63, 103807.	8.2	59
158	Photovoltaic-pyroelectric effect coupled broadband photodetector in self-powered ZnO/ZnTe core/shell nanorod arrays. <i>Nano Energy</i> , 2019, 62, 310-318.	8.2	111
159	Lattice anchoring stabilizes solution-processed semiconductors. <i>Nature</i> , 2019, 570, 96-101.	13.7	208
160	A Smart Photochromic Semiconductor: Breaking the Intrinsic Positive Relation Between Conductance and Temperature. <i>Angewandte Chemie</i> , 2019, 131, 9575-9578.	1.6	8
161	High Responsivity and Response Speed Single-Layer Mixed-Cation Lead Mixed-Halide Perovskite Photodetectors Based on Nanogap Electrodes Manufactured on Large-Area Rigid and Flexible Substrates. <i>Advanced Functional Materials</i> , 2019, 29, 1901371.	7.8	39
162	Resonance-enhanced three-photon luminescence via lead halide perovskite metasurfaces for optical encoding. <i>Nature Communications</i> , 2019, 10, 2085.	5.8	91
163	A Smart Photochromic Semiconductor: Breaking the Intrinsic Positive Relation Between Conductance and Temperature. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 9475-9478.	7.2	58

#	ARTICLE	IF	CITATIONS
164	Sensitivity-enhanced uncooled infrared detector based on a Lamb wave sensor with polydopamine coating. <i>Applied Physics Letters</i> , 2019, 114, 183505.	1.5	2
165	Side-Chain Engineering of Nonfullerene Acceptors for Near-Infrared Organic Photodetectors and Photovoltaics. <i>ACS Energy Letters</i> , 2019, 4, 1401-1409.	8.8	182
166	Organic Cavity Photodetectors Based on Nanometer-Thick Active Layers for Tunable Monochromatic Spectral Response. <i>ACS Photonics</i> , 2019, 6, 1393-1399.	3.2	27
167	Ligand cleavage enables formation of 1,2-ethanedithiol capped colloidal quantum dot solids. <i>Nanoscale</i> , 2019, 11, 10774-10781.	2.8	14
168	Inorganic and Layered Perovskites for Optoelectronic Devices. <i>Advanced Materials</i> , 2019, 31, e1807095.	11.1	94
169	Controllable Growth of Centimeter-Sized 2D Perovskite Heterostructures for Highly Narrow Dual-Band Photodetectors. <i>ACS Nano</i> , 2019, 13, 5473-5484.	7.3	110
170	Sub-Band Gap Photodetection from the Titanium Nitride/Germanium Heterostructure. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 21965-21972.	4.0	28
171	Stable, High-Sensitivity and Fast-Response Photodetectors Based on Lead-Free Cs ₂ AgBiBr ₆ Double Perovskite Films. <i>Advanced Optical Materials</i> , 2019, 7, 1801732.	3.6	126
172	Inkjet Printing Multicolor Pixelated Quantum Dots on Graphene for Broadband Photodetection. <i>ACS Applied Nano Materials</i> , 2019, 2, 3246-3252.	2.4	21
173	Solution-Processed Mg-Substituted ZnO Thin Films for Metal-Semiconductor-Metal Visible-Blind Photodetectors. <i>Coatings</i> , 2019, 9, 277.	1.2	37
174	Enhanced-performance of self-powered flexible quantum dot photodetectors by a double hole transport layer structure. <i>Nanoscale</i> , 2019, 11, 9626-9632.	2.8	18
175	Highly Sensitive Polymer Phototransistor Based on the Synergistic Effect of Chemical and Physical Blending in D (Donor)-A (Acceptor) Copolymers. <i>Advanced Electronic Materials</i> , 2019, 5, 1900174.	2.6	12
176	High-detectivity organic photodetectors based on a thick-film photoactive layer using a conjugated polymer containing a naphtho[1,2-c:5,6-bis[1,2,5]thiadiazole unit. <i>Journal of Materials Chemistry C</i> , 2019, 7, 6070-6076.	2.7	35
177	Recent advances with optical upconverters made from all-organic and hybrid materials. <i>Science and Technology of Advanced Materials</i> , 2019, 20, 497-510.	2.8	22
178	Scalable room-temperature synthesis of plum-pudding-like Cs ₄ PbBr ₆ /CsPbBr ₃ microcrystals exhibiting excellent photoluminescence. <i>Journal of Materials Chemistry C</i> , 2019, 7, 4733-4739.	2.7	31
179	Multifunctional AIE-active polymers containing TPA-TPE moiety for electrochromic, electrofluorochromic and photodetector. <i>Dyes and Pigments</i> , 2019, 166, 340-349.	2.0	44
180	Photodetectors based on two-dimensional materials and organic thin-film heterojunctions. <i>Chinese Physics B</i> , 2019, 28, 017103.	0.7	18
181	High-Detectivity Perovskite Light Detectors Printed in Air from Benign Solvents. <i>CheM</i> , 2019, 5, 868-880.	5.8	25

#	ARTICLE	IF	CITATIONS
182	Optoelectronic Properties of Ternary In_2S_3 Semiconductor Nanocrystals: Bright Prospects with Elusive Origins. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1600-1616.	2.1	122
183	Advances in solution-processable near-infrared phototransistors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 3711-3729.	2.7	74
184	Halide lead perovskites for ionizing radiation detection. <i>Nature Communications</i> , 2019, 10, 1066.	5.8	568
185	High-speed Colloidal Quantum Dot Photodiodes via Accelerating Charge Separation at Metal-Oxide Interface. <i>Small</i> , 2019, 15, e1900008.	5.2	14
186	High-Performance All-Polymer Photodetectors via a Thick Photoactive Layer Strategy. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 14208-14214.	4.0	54
187	Functional blends of organic materials for optoelectronic applications. , 2019, , 91-110.		0
188	Design strategies for two-dimensional material photodetectors to enhance device performance. <i>Information Materials</i> , 2019, 1, 33-53.	8.5	158
189	Highly Ordered Semiconducting Polymer Arrays for Sensitive Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 15829-15836.	4.0	15
190	Light Management with Patterned Micro- and Nanostructure Arrays for Photocatalysis, Photovoltaics, and Optoelectronic and Optical Devices. <i>Advanced Functional Materials</i> , 2019, 29, 1807275.	7.8	115
191	Metal halide perovskite photodetectors: Material features and device engineering. <i>Chinese Physics B</i> , 2019, 28, 018502.	0.7	18
192	Zero-Dimensional Lead-Free Hybrid Perovskite-like Material with a Quantum-Well Structure. <i>Chemistry of Materials</i> , 2019, 31, 1941-1945.	3.2	49
193	Facile Secondary Deposition for Improving Quantum Dot Loading in Fabricating Quantum Dot Solar Cells. <i>Journal of the American Chemical Society</i> , 2019, 141, 4300-4307.	6.6	66
194	Silicon-Compatible Photodetectors: Trends to Monolithically Integrate Photosensors with Chip Technology. <i>Advanced Functional Materials</i> , 2019, 29, 1808182.	7.8	198
195	An Oxide Schottky Junction Artificial Optoelectronic Synapse. <i>ACS Nano</i> , 2019, 13, 2634-2642.	7.3	237
196	Cavity Enhanced Organic Photodiodes with Charge Collection Narrowing. <i>Advanced Optical Materials</i> , 2019, 7, 1801543.	3.6	38
197	Preparation of AZO:PDIN hybrid interlayer materials and application in high-gain polymer photodetectors with spectral response from 300 nm to 1700 nm. <i>Organic Electronics</i> , 2019, 68, 242-247.	1.4	4
198	Hybrid perovskites for device applications. , 2019, , 211-256.		13
199	Colloidal-quantum-dot-in-perovskite nanowires. <i>Infrared Physics and Technology</i> , 2019, 98, 16-22.	1.3	16

#	ARTICLE	IF	CITATIONS
200	Germanium/perovskite heterostructure for high-performance and broadband photodetector from visible to infrared telecommunication band. <i>Light: Science and Applications</i> , 2019, 8, 106.	7.7	172
201	Pressure-induced semiconductor-to-metal phase transition of a charge-ordered indium halide perovskite. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 23404-23409.	3.3	45
202	Prediction of room-temperature half-metallicity in layered halide double perovskites. <i>Npj Computational Materials</i> , 2019, 5, .	3.5	19
203	Spray Coated Colloidal Quantum Dot Films for Broadband Photodetectors. <i>Nanomaterials</i> , 2019, 9, 1738.	1.9	10
204	Exploiting supramolecular assemblies for filterless ultra-narrowband organic photodetectors with inkjet fabrication capability. <i>Journal of Materials Chemistry C</i> , 2019, 7, 14639-14650.	2.7	24
205	Enhanced photocurrent in organic photodetectors by the tunneling effect of a hafnium oxide thin film as an electron blocking layer. <i>RSC Advances</i> , 2019, 9, 29993-29997.	1.7	5
206	P3HT-based visible-light organic photodetectors using PEI/PAA multilayers as a p-type buffer layer. <i>RSC Advances</i> , 2019, 9, 37180-37187.	1.7	8
207	Carbon-Based Photocathode Materials for Solar Hydrogen Production. <i>Advanced Materials</i> , 2019, 31, e1801446.	11.1	83
208	Development of Organic Semiconductor Photodetectors: From Mechanism to Applications. <i>Advanced Optical Materials</i> , 2019, 7, 1800522.	3.6	301
209	Sb ₂ Te ₃ /graphene heterostructure for broadband photodetector: A first-principles calculation at the level of Cooper's exchange functionals. <i>Optik</i> , 2019, 177, 83-92.	1.4	7
210	Recent developments on printed photodetectors for large area and flexible applications. <i>Organic Electronics</i> , 2019, 66, 216-226.	1.4	43
211	Understanding the Formation of Conductive Mesocrystalline Superlattices with Cubic PbS Nanocrystals at the Liquid/Air Interface. <i>Journal of Physical Chemistry C</i> , 2019, 123, 1519-1526.	1.5	14
212	High-Performance and Flexible Shortwave Infrared Photodetectors Using Composites of Rare Earth-Doped Nanoparticles. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 2344-2351.	4.0	20
213	Micro-Transfer-Printing of Al ₂ O ₃ -Capped Short-Wave-Infrared PbS Quantum Dot Photoconductors. <i>ACS Applied Nano Materials</i> , 2019, 2, 299-306.	2.4	14
214	Strain-controlled shell morphology on quantum rods. <i>Nature Communications</i> , 2019, 10, 2.	5.8	73
215	Band-like transport in small-molecule thin films toward high mobility and ultrahigh detectivity phototransistor arrays. <i>Nature Communications</i> , 2019, 10, 12.	5.8	172
216	Two-Dimensional Hybrid Halide Perovskites: Principles and Promises. <i>Journal of the American Chemical Society</i> , 2019, 141, 1171-1190.	6.6	999
217	Fast response organic photodetectors with a thick photoconversion region and fullerene transport layer. <i>Materials Science in Semiconductor Processing</i> , 2019, 91, 22-26.	1.9	4

#	ARTICLE	IF	CITATIONS
218	Reduction of dark current density in organic ultraviolet photodetector by utilizing an electron blocking layer of TAPC doped with MoO ₃ . <i>Organic Electronics</i> , 2019, 65, 150-155.	1.4	25
219	Plasma-enhanced atomic layer deposition of SiO ₂ for channel isolation of colloidal quantum dots phototransistors. <i>Superlattices and Microstructures</i> , 2019, 125, 281-286.	1.4	3
220	On-chip integrated Methylammonium Halide Perovskite Optical Sensors. <i>Advanced Optical Materials</i> , 2019, 7, 1801308.	3.6	15
221	Impedance Spectroscopy: A Versatile Technique to Understand Solution-Processed Optoelectronic Devices. <i>Physica Status Solidi - Rapid Research Letters</i> , 2019, 13, 1800580.	1.2	18
222	Doping induced performance enhancement in inverted small molecule organic photodiodes operating below 1V reverse bias - Towards compatibility with CMOS for imaging applications. <i>Organic Electronics</i> , 2019, 67, 1-9.	1.4	7
223	Origin of Low Carrier Mobilities in Halide Perovskites. <i>ACS Energy Letters</i> , 2019, 4, 456-463.	8.8	136
224	Precision ultrasound sensing on a chip. <i>Nature Communications</i> , 2019, 10, 132.	5.8	92
225	High performance charge-transfer induced homojunction photodetector based on ultrathin ZnO nanosheet. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	21
226	Work-function-controlled operation mode transition between photodiode and photoconductor modes in organic photodetectors. <i>Organic Electronics</i> , 2019, 64, 138-145.	1.4	14
227	Au@HgxCd _{1-x} Te core@shell nanorods by sequential aqueous cation exchange for near-infrared photodetectors. <i>Nano Energy</i> , 2019, 57, 57-65.	8.2	38
228	Heterogeneous Integration of Three-Primary-Color Photoluminescent Nanoparticle Arrays with Defined Interfaces. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 1616-1623.	4.0	12
229	Accurate characterization of next-generation thin-film photodetectors. <i>Nature Photonics</i> , 2019, 13, 1-4.	15.6	436
230	Uniform Selenization of Crack-Free Films of Cu(In,Ga)Se ₂ Nanocrystals. <i>ACS Applied Energy Materials</i> , 2019, 2, 736-742.	2.5	8
231	Self-Limiting Assembly Approaches for Nanoadditive Manufacturing of Electronic Thin Films and Devices. <i>Advanced Materials</i> , 2020, 32, e1806480.	11.1	23
232	Organic Photodetectors for Next-Generation Wearable Electronics. <i>Advanced Materials</i> , 2020, 32, e1902045.	11.1	401
233	Perovskite-Based Phototransistors and Hybrid Photodetectors. <i>Advanced Functional Materials</i> , 2020, 30, 1903907.	7.8	225
234	Polyfluorene copolymer /Al Schottky junction for UV-A photodetector with relatively high stability and photocurrent density. <i>Optics Communications</i> , 2020, 458, 124809.	1.0	9
235	PbS colloidal quantum dots patterning technique with low vertical leakage current for the photodetection applications. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 5900-5906.	1.1	5

#	ARTICLE	IF	CITATIONS
236	Flexible Photodetector Based on 2D Materials: Processing, Architectures, and Applications. <i>Advanced Materials Interfaces</i> , 2020, 7, 1901657.	1.9	109
237	A self-powered solar-blind photodetector with large V_{oc} enhancing performance based on the PEDOT:PSS/Ga ₂ O ₃ organic-inorganic hybrid heterojunction. <i>Journal of Materials Chemistry C</i> , 2020, 8, 1292-1300.	2.7	94
238	Organic photodiodes and phototransistors toward infrared detection: materials, devices, and applications. <i>Chemical Society Reviews</i> , 2020, 49, 653-670.	18.7	246
239	2D material broadband photodetectors. <i>Nanoscale</i> , 2020, 12, 454-476.	2.8	167
240	Band offset determination of p-NiO/n-TiO ₂ heterojunctions for applications in high-performance UV photodetectors. <i>Journal of Materials Science</i> , 2020, 55, 4332-4344.	1.7	35
241	Flexible Quasi-2D Perovskite/IGZO Phototransistors for Ultrasensitive and Broadband Photodetection. <i>Advanced Materials</i> , 2020, 32, e1907527.	11.1	88
242	Environment-friendly aqueous processing of [60]fullerene semiconducting films for truly green organic electronics. <i>Journal of Materials Chemistry C</i> , 2020, 8, 495-499.	2.7	5
243	Substantially Improving Device Performance of All-Inorganic Perovskite-Based Phototransistors via Indium Tin Oxide Nanowire Incorporation. <i>Small</i> , 2020, 16, e1905609.	5.2	33
244	Synthesis and characterization of urchin-like CuO nanorod/TiCu-based metallic glass core-shell powders with surface photovoltage performance. <i>Applied Surface Science</i> , 2020, 506, 144871.	3.1	4
245	Surfactant-Induced Solubility Control To Realize Water-Processed High-Precision Patterning of Polymeric Semiconductors for Full Color Organic Image Sensor. <i>ACS Nano</i> , 2020, 14, 415-421.	7.3	16
246	Effective Singlet Oxygen Generation in Silica-Coated CsPbBr ₃ Quantum Dots through Energy Transfer for Photocatalysis. <i>ChemSusChem</i> , 2020, 13, 682-687.	3.6	24
247	Proton Initiated Ligand Exchange Reactions for Colloidal Nanocrystals Functionalized by Inorganic Ligands with Extremely Weak Coordination Ability. <i>Chemistry of Materials</i> , 2020, 32, 630-637.	3.2	14
248	Emerging New-Generation Photodetectors Based on Low-Dimensional Halide Perovskites. <i>ACS Photonics</i> , 2020, 7, 10-28.	3.2	104
249	Gallium oxide-based solar-blind ultraviolet photodetectors. <i>Semiconductor Science and Technology</i> , 2020, 35, 023001.	1.0	73
250	Sensitivity of Sub-Bandgap External Quantum Efficiency Measurements of Solar Cells under Electrical and Light Bias. <i>ACS Photonics</i> , 2020, 7, 256-264.	3.2	37
251	Atomic Scale Composite Oxides Infiltration to Quantum Dot Photodetector with Ultralow Dark Current. <i>ACS Applied Electronic Materials</i> , 2020, 2, 155-162.	2.0	8
252	Imaging material functionality through three-dimensional nanoscale tracking of energy flow. <i>Nature Materials</i> , 2020, 19, 56-62.	13.3	87
253	High-Performance Polymer Photodetector Using the Non-Thermal-Catalyzed Non-Ultraviolet-Ozone-Treated SnO ₂ Interfacial Layer. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900531.	1.2	10

#	ARTICLE	IF	CITATIONS
254	Developments of Diketopyrrolopyrrole Dye-Based Organic Semiconductors for a Wide Range of Applications in Electronics. <i>Advanced Materials</i> , 2020, 32, e1903882.	11.1	212
255	Quantum Dots Photosensor with Wide Bandgap P-Type and N-Type Oxide Semiconductors for High Detectivity and Responsivity. <i>Advanced Materials Technologies</i> , 2020, 5, 1900857.	3.0	14
256	Dry Mechanochemical Synthesis of Highly Luminescent, Blue and Green Hybrid Perovskite Solids. <i>Advanced Optical Materials</i> , 2020, 8, 1901494.	3.6	16
257	Insights into the Control of Optoelectronic Properties in Mixed Stacking Charge Transfer Complexes. <i>Chemistry - A European Journal</i> , 2020, 26, 3578-3585.	1.7	29
258	Flow Synthesis of Metal Halide Perovskite Quantum Dots: From Rapid Parameter Space Mapping to AI-Guided Modular Manufacturing. <i>Matter</i> , 2020, 3, 1053-1086.	5.0	45
259	An A-D-A-Type Organic Semiconductor Based Optoelectrical Device With Photo Response and Optical Memory Behaviors. <i>Frontiers in Materials</i> , 2020, 7, .	1.2	1
260	High Detectivity Green-Selective All-Polymer p-n Junction Photodetectors. <i>Advanced Optical Materials</i> , 2020, 8, 2001038.	3.6	23
261	Recent Progress on Broadband Organic Photodetectors and their Applications. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000262.	4.4	178
262	Intrinsic Detectivity Limits of Organic Near-Infrared Photodetectors. <i>Advanced Materials</i> , 2020, 32, e2003818.	11.1	95
263	Lead halide perovskite vortex microlasers. <i>Nature Communications</i> , 2020, 11, 4862.	5.8	75
264	Solid-State NMR and NQR Spectroscopy of Lead-Halide Perovskite Materials. <i>Journal of the American Chemical Society</i> , 2020, 142, 19413-19437.	6.6	76
265	Scalable Synthesis of a Sub-10 nm Chalcopyrite (CuFeS ₂) Nanocrystal by the Microwave-Assisted Synthesis Technique and Its Application in a Heavy-Metal-Free Broad-Band Photodetector. <i>ACS Omega</i> , 2020, 5, 25947-25953.	1.6	15
266	Ultrasensitive Flexible Solar-Blind Photodetectors Based on Graphene/Amorphous Ga ₂ O ₃ van der Waals Heterojunctions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47714-47720.	4.0	73
267	Carbon Nanomaterials for Halide Perovskites-Based Hybrid Photodetectors. <i>Advanced Materials Technologies</i> , 2020, 5, 2000643.	3.0	9
268	Recent advances of lead-free metal halide perovskite single crystals and nanocrystals: synthesis, crystal structure, optical properties, and their diverse applications. <i>Materials Today Chemistry</i> , 2020, 18, 100363.	1.7	38
269	The surface-enhanced Raman scattering of all-inorganic perovskite quantum dots of CsPbBr ₃ encapsulated in a ZIF-8 metal-organic framework. <i>New Journal of Chemistry</i> , 2020, 44, 17570-17576.	1.4	10
270	Lateral Photodetectors Based on Double-Cable Polymer/Two-Dimensional Perovskite Heterojunction. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 8826-8834.	4.0	27
271	Ultralow-Transition Energy Organic Complex on Graphene for High-Performance Shortwave Infrared Photodetection. <i>Advanced Materials</i> , 2020, 32, e2002628.	11.1	42

#	ARTICLE	IF	CITATIONS
272	Precise Phase Control of Large-Scale Inorganic Perovskites via Vapor-Phase Anion-Exchange Strategy. <i>Small</i> , 2020, 16, e2005226.	5.2	17
273	Large-Scale Thin CsPbBr ₃ Single-Crystal Film Grown on Sapphire <i>via</i> Chemical Vapor Deposition: Toward Laser Array Application. <i>ACS Nano</i> , 2020, 14, 15605-15615.	7.3	112
274	Perovskite Tandem Solar Cells: From Fundamentals to Commercial Deployment. <i>Chemical Reviews</i> , 2020, 120, 9835-9950.	23.0	248
275	Current Modulation by Optoelectric Control of Ferroelectric Domains. <i>ACS Applied Electronic Materials</i> , 2020, 2, 2829-2836.	2.0	12
276	Simple Near-Infrared Electron Acceptors for Efficient Photovoltaics and Sensitive Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 39515-39523.	4.0	43
277	Role of virtual band population for high harmonic generation in solids. <i>Physical Review B</i> , 2020, 102, .	1.1	28
278	Enhanced Passivation and Carrier Collection in Ink-Processed PbS Quantum Dot Solar Cells via a Supplementary Ligand Strategy. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42217-42225.	4.0	27
279	Novel Organic Semiconductors Based on 1,5-Naphthyridine-2,6-Dione Unit for Blue-Selective Organic Phototransistor. <i>Advanced Optical Materials</i> , 2020, 8, 2000695.	3.6	8
280	Mid-infrared photoconductivity of polypyrrole doped with cadmium sulfide quantum dots. <i>Journal of Physics and Chemistry of Solids</i> , 2020, 141, 109383.	1.9	4
281	Growth of centimeter-scale perovskite single-crystalline thin film via surface engineering. <i>Nano Convergence</i> , 2020, 7, 25.	6.3	33
282	Photo-switchable electron-transporting layers for self-driven perovskite photodetectors towards high detectivity. <i>Journal of Materials Chemistry C</i> , 2020, 8, 16506-16512.	2.7	10
283	Integrated Structure and Device Engineering for High Performance and Scalable Quantum Dot Infrared Photodetectors. <i>Small</i> , 2020, 16, e2003397.	5.2	67
284	Importance of separating contacts from the photosensitive layer in heterojunction phototransistors. <i>Superlattices and Microstructures</i> , 2020, 148, 106713.	1.4	2
285	Metal Halide Perovskites for High-Energy Radiation Detection. <i>Advanced Science</i> , 2020, 7, 2002098.	5.6	126
286	Device Based on Polymer Schottky Junctions and Their Applications: A Review. <i>IEEE Access</i> , 2020, 8, 189646-189660.	2.6	9
287	Filter-Free Band-Selective Organic Photodetectors. <i>Advanced Optical Materials</i> , 2020, 8, 2001388.	3.6	63
288	In situ Grazing-Incidence Small-Angle X-ray Scattering Observation of Gold Sputter Deposition on a PbS Quantum Dot Solid. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 46942-46952.	4.0	7
289	Mechanically Compatible UV Photodetectors Based on Electrospun Free-Standing Y ³⁺ -Doped TiO ₂ Nanofibrous Membranes with Enhanced Flexibility. <i>Advanced Functional Materials</i> , 2020, 30, 2005291.	7.8	51

#	ARTICLE	IF	CITATIONS
290	(3-Methylbenzo[<i>d</i>]thiazol-3-ium) ₂ Cu ₃ I ₅ : A Copper Iodide Hybrid Photoconductor Assembled via Coulomb Interaction. <i>Crystal Growth and Design</i> , 2020, 20, 7012-7020.	1.4	5
291	Flexible Ultrathin Single-Crystalline Perovskite Photodetector. <i>Nano Letters</i> , 2020, 20, 7144-7151.	4.5	117
292	Curved digital X-ray detectors. <i>Npj Flexible Electronics</i> , 2020, 4, .	5.1	39
293	Top-Illuminated Flexible Organic Photodetectors Integrated With Hole Extraction Layers Synthesized With Solution-Processed NiO _x Films at Room Temperature. <i>IEEE Transactions on Electron Devices</i> , 2020, 67, 4308-4312.	1.6	6
294	New Design Strategy Toward NIR I Xanthene-Based Dyes. <i>Journal of Organic Chemistry</i> , 2020, 85, 12108-12116.	1.7	16
295	Exciton-driven change of phonon modes causes strong temperature dependent bandgap shift in nanoclusters. <i>Nature Communications</i> , 2020, 11, 4127.	5.8	7
296	Rational design of Al ₂ O ₃ /2D perovskite heterostructure dielectric for high performance MoS ₂ phototransistors. <i>Nature Communications</i> , 2020, 11, 4266.	5.8	59
297	Visible-to-near-infrared organic photodiodes with performance comparable to commercial silicon-based detectors. <i>Applied Physics Letters</i> , 2020, 117, .	1.5	45
298	The effect of thickness on the optoelectronic properties of organic field-effect transistors: towards molecular crystals at monolayer limit. <i>Journal of Materials Chemistry C</i> , 2020, 8, 13154-13168.	2.7	34
299	Facile synthesis of Cu-In-Zn-S alloy nanospheres for fast photoelectric detection across the visible spectrum. <i>Frontiers of Materials Science</i> , 2020, 14, 323-331.	1.1	0
300	Suppression of Auger Recombination by Gradient Alloying in InAs/CdSe/CdS QDs. <i>Chemistry of Materials</i> , 2020, 32, 7703-7709.	3.2	15
301	Frontiers in Photosensor Materials and Designs for New Image Sensor Applications. <i>IEEE Sensors Journal</i> , 2021, 21, 11339-11348.	2.4	5
302	Self-driven WSe ₂ photodetectors enabled with asymmetrical van der Waals contact interfaces. <i>Npj 2D Materials and Applications</i> , 2020, 4, .	3.9	53
303	High-mobility patternable MoS ₂ percolating nanofilms. <i>Nano Research</i> , 2021, 14, 2255.	5.8	27
304	Charge-generating mid-gap trap states define the thermodynamic limit of organic photovoltaic devices. <i>Nature Communications</i> , 2020, 11, 5567.	5.8	63
305	Large-area low-noise flexible organic photodiodes for detecting faint visible light. <i>Science</i> , 2020, 370, 698-701.	6.0	235
306	Transparent, flexible MAPbI ₃ perovskite microwire arrays passivated with ultra-hydrophobic supramolecular self-assembly for stable and high-performance photodetectors. <i>Nanoscale</i> , 2020, 12, 11986-11996.	2.8	14
307	Nanocrystals of Lead Chalcogenides: A Series of Kinetically Trapped Metastable Nanostructures. <i>Journal of the American Chemical Society</i> , 2020, 142, 10198-10211.	6.6	34

#	ARTICLE	IF	CITATIONS
308	Printed High-Density and Flexible Photodetector Arrays via Size-Matched Heterogeneous Micro-Nanostructure. <i>Advanced Optical Materials</i> , 2020, 8, 2000370.	3.6	9
309	Colloidal quantum dot hybrids: an emerging class of materials for ambient lighting. <i>Journal of Materials Chemistry C</i> , 2020, 8, 10676-10695.	2.7	46
310	Perovskite Flash Memory with a Single-Layer Nanofloating Gate. <i>Nano Letters</i> , 2020, 20, 5081-5089.	4.5	15
311	Hybrid image sensor of small molecule organic photodiode on CMOS – Integration and characterization. <i>Scientific Reports</i> , 2020, 10, 7594.	1.6	23
312	The influence of exposed surface on trap state of PbS quantum dots. <i>Superlattices and Microstructures</i> , 2020, 145, 106616.	1.4	4
313	Micron Thick Colloidal Quantum Dot Solids. <i>Nano Letters</i> , 2020, 20, 5284-5291.	4.5	47
314	Perovskite semiconductors for direct X-ray detection and imaging. <i>Journal of Semiconductors</i> , 2020, 41, 051204.	2.0	68
315	Organic-inorganic hybrid perovskite electronics. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 13347-13357.	1.3	23
316	Self-filtering narrowband high performance organic photodetectors enabled by manipulating localized Frenkel exciton dissociation. <i>Nature Communications</i> , 2020, 11, 2871.	5.8	131
317	Negative photoconductivity in Cs ₄ PbBr ₆ single crystal. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14276-14283.	1.3	18
318	High quality silicon: Colloidal quantum dot heterojunction based infrared photodetector. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	38
319	Toward perovskite nanocrystalline solar cells: progress and potential. <i>Journal of Materials Chemistry C</i> , 2020, 8, 5321-5334.	2.7	22
320	The role of CdS doping in improving SWIR photovoltaic and photoconductive responses in solution grown CdS/PbS heterojunctions. <i>Nanotechnology</i> , 2020, 31, 255502.	1.3	4
321	A comparative study of organic photodetectors based on P3HT and PTB7 polymers for visible light communication. <i>Organic Electronics</i> , 2020, 81, 105666.	1.4	20
322	Bandgap Tailored Nonfullerene Acceptors for Low-Energy-Loss Near-Infrared Organic Photovoltaics. , 2020, 2, 395-402.		37
323	Bidirectional optical signal transmission between two identical devices using perovskite diodes. <i>Nature Electronics</i> , 2020, 3, 156-164.	13.1	126
324	Photodetectors based on solution-processable semiconductors: Recent advances and perspectives. <i>Applied Physics Reviews</i> , 2020, 7, .	5.5	118
325	High-Sensitivity Visible-Near Infrared Organic Photodetectors Based on Non-Fullerene Acceptors. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 17769-17775.	4.0	44

#	ARTICLE	IF	CITATIONS
326	Lead-Free Perovskite/Organic Semiconductor Vertical Heterojunction for Highly Sensitive Photodetectors. ACS Applied Materials & Interfaces, 2020, 12, 18769-18776.	4.0	29
327	Solution-processed upconversion photodetectors based on quantum dots. Nature Electronics, 2020, 3, 251-258.	13.1	135
328	Nanostructured Organic/Hybrid Materials and Components in Miniaturized Optical and Chemical Sensors. Nanomaterials, 2020, 10, 480.	1.9	29
329	Directed self-assembly of viologen-based 2D semiconductors with intrinsic UV-Vis-SWIR photoresponse after photo/thermo activation. Nature Communications, 2020, 11, 1179.	5.8	88
330	Ultrafast and broadband photodetectors based on a perovskite/organic bulk heterojunction for large-dynamic-range imaging. Light: Science and Applications, 2020, 9, 31.	7.7	372
331	Processes Controlling the Distribution of Vertical Organic Composition in Organic Photodetectors by Ultrasonic-Assisted Solvent Vapor Annealing. ACS Applied Electronic Materials, 2020, 2, 2188-2195.	2.0	9
332	Generalizable density functional theory based photoemission model for the accelerated development of photocathodes and other photoemissive devices. Physical Review B, 2020, 101, .	1.1	11
333	Highly Sensitive Narrowband Si Photodetector With Peak Response at Around 1060 nm. IEEE Transactions on Electron Devices, 2020, 67, 3211-3214.	1.6	26
334	Perovskite Granular Wire Photodetectors with Ultrahigh Photodetectivity. Advanced Materials, 2020, 32, e2002357.	11.1	36
335	Two-dimensional materials and hybrid systems for photodetection. , 2020, , 325-349.		3
336	Coaxially enhanced photocarrier transport of a highly oriented Cu ₂ ZnSnS ₄ /ZnO photodetector through the nanoconfinement effect. Journal of Materials Chemistry C, 2020, 8, 3491-3497.	2.7	13
337	Physics of trap assisted photomultiplication in vertical organic photoresistors. Journal of Applied Physics, 2020, 127, .	1.1	23
338	Highly photosensitive near infrared photodetector based on polypyrrole nanoparticle incorporated with CdS quantum dots. Materials Science in Semiconductor Processing, 2020, 111, 104964.	1.9	24
339	Color Determination from a Single Broadband Organic Photodiode. Advanced Optical Materials, 2020, 8, 1901722.	3.6	14
340	Organic Thin-Film Red-Light Photodiodes with Tunable Spectral Response Via Selective Exciton Activation. ACS Applied Materials & Interfaces, 2020, 12, 13061-13067.	4.0	11
341	Enhanced Photoresponse of WS ₂ Photodetectors through Interfacial Defect Engineering Using a TiO ₂ Interlayer. ACS Applied Electronic Materials, 2020, 2, 838-845.	2.0	17
342	Narrowband Absorption-Type Organic Photodetectors for the Far-Red Range Based on Fullerene-Free Bulk Heterojunctions. Advanced Optical Materials, 2020, 8, 1902056.	3.6	47
343	Self-powered photodetectors based on Cs _x DMA _{1-x} PbI ₃ perovskite films with high detectivity and stability. Nano Energy, 2020, 71, 104611.	8.2	17

#	ARTICLE	IF	CITATIONS
344	Advances in two-dimensional organic-inorganic hybrid perovskites. <i>Energy and Environmental Science</i> , 2020, 13, 1154-1186.	15.6	420
345	Solution-Processed Flexible Broadband Photodetectors with Solution-Processed Transparent Polymeric Electrode. <i>Advanced Functional Materials</i> , 2020, 30, 1909487.	7.8	61
346	Color-Selective Printed Organic Photodiodes for Filterless Multichannel Visible Light Communication. <i>Advanced Materials</i> , 2020, 32, e1908258.	11.1	91
347	Lattice Dynamics and Electron-Phonon Coupling in Lead-Free Cs ₂ AgIn _{1-x} Bi _x Cl ₆ Double Perovskite Nanocrystals. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2113-2120.	2.1	69
348	Surface plasmon driven near- and midinfrared photoconductivity in ligand-free ITO nanocrystal films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, 022420.	0.9	1
349	Omnidirectional Photodetectors Based on Spatial Resonance Asymmetric Facade via a 3D Self-Standing Strategy. <i>Advanced Materials</i> , 2020, 32, e1907280.	11.1	14
350	Phase Control Behavior of Lateral Polymer Photodetectors Using Strong Aggregation Bulk Heterojunction Film. <i>Macromolecular Chemistry and Physics</i> , 2020, 221, 1900474.	1.1	3
351	A high performance self-powered ultraviolet photodetector based on a p-GaN/n-ZnMgO heterojunction. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2719-2724.	2.7	45
352	Coupling halide perovskites with different materials: From doping to nanocomposites, beyond photovoltaics. <i>Progress in Materials Science</i> , 2020, 110, 100639.	16.0	38
353	Materials chemistry and engineering in metal halide perovskite lasers. <i>Chemical Society Reviews</i> , 2020, 49, 951-982.	18.7	263
354	Triple cation perovskite doped with the small molecule F4TCNQ for highly efficient stable photodetectors. <i>Journal of Materials Chemistry C</i> , 2020, 8, 2880-2887.	2.7	24
355	Hydroiodic Acid Additive Enhanced the Performance and Stability of PbS-QDs Solar Cells via Suppressing Hydroxyl Ligand. <i>Nano-Micro Letters</i> , 2020, 12, 37.	14.4	35
356	Metal-Semiconductor-Metal μ -Ga ₂ O ₃ Solar-Blind Photodetectors with a Record-High Responsivity Rejection Ratio and Their Gain Mechanism. <i>ACS Photonics</i> , 2020, 7, 812-820.	3.2	152
357	Ultrafast Colloidal Quantum Dot Infrared Photodiode. <i>ACS Photonics</i> , 2020, 7, 1297-1303.	3.2	40
358	Noise and detectivity limits in organic shortwave infrared photodiodes with low disorder. <i>Npj Flexible Electronics</i> , 2020, 4, .	5.1	59
359	Direct laser-patterned MXene-perovskite image sensor arrays for visible-near infrared photodetection. <i>Materials Horizons</i> , 2020, 7, 1901-1911.	6.4	68
360	Highly transparent phototransistor based on quantum-dots and ZnO bilayers for optical logic gate operation in visible-light. <i>RSC Advances</i> , 2020, 10, 16404-16414.	1.7	17
361	Secondary Grain Growth in Organic-Inorganic Perovskite Films with Ethylamine Hydrochloride Additives for Highly Efficient Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 20026-20034.	4.0	25

#	ARTICLE	IF	CITATIONS
362	SbSI microrod based flexible photodetectors. Journal Physics D: Applied Physics, 2020, 53, 345106.	1.3	10
363	Efficient Interconnection in Perovskite Tandem Solar Cells. Small Methods, 2020, 4, 2000093.	4.6	43
364	Organic Photodetectors: Materials, Structures, and Challenges. Solar Rrl, 2020, 4, 2000139.	3.1	78
365	Unsymmetrical Small Molecules for Broad-Band Photoresponse and Efficient Charge Transport in Organic Phototransistors. ACS Applied Materials & Interfaces, 2020, 12, 25066-25074.	4.0	16
366	A surface photovoltaic effect-related high-performance photodetector based on a single CH ₃ NH ₃ PbI ₃ micro/nanowire. Journal of Materials Chemistry C, 2020, 8, 6558-6564.	2.7	8
367	High-Performance Quasi-2D Perovskite/Single-Walled Carbon Nanotube Phototransistors for Low-Cost and Sensitive Broadband Photodetection. Small Structures, 2021, 2, 2000084.	6.9	26
368	Flexible and large-area imagers using organic photodetectors. , 2021, , 575-597.		4
369	Self-Powered Red/UV Narrowband Photodetector by Unbalanced Charge Carrier Transport Strategy. Advanced Functional Materials, 2021, 31, 2007016.	7.8	44
370	Turning On Solid-State Luminescence by Phototriggered Subtle Molecular Conformation Variations. Advanced Materials, 2021, 33, e2006844.	11.1	67
371	Self-Driven Perovskite Narrowband Photodetectors with Tunable Spectral Responses. Advanced Materials, 2021, 33, e2005557.	11.1	109
372	Recent Progress in Organic Photodetectors and their Applications. Advanced Science, 2021, 8, 2002418.	5.6	249
373	Strain Engineering in 2D Material-Based Flexible Optoelectronics. Small Methods, 2021, 5, e2000919.	4.6	80
374	Pt/AlGa _N Nanoarchitecture: Toward High Responsivity, Self-Powered Ultraviolet-Sensitive Photodetection. Nano Letters, 2021, 21, 120-129.	4.5	127
375	Low-Dimensional Metal Halide Perovskite Photodetectors. Advanced Materials, 2021, 33, e2003309.	11.1	319
376	Surface-induced phase engineering and defect passivation of perovskite nanograins for efficient red light-emitting diodes. Nanoscale, 2021, 13, 340-348.	2.8	22
377	Band Alignment Engineering in Two-Dimensional Transition Metal Dichalcogenide-Based Heterostructures for Photodetectors. Small Structures, 2021, 2, 2000136.	6.9	112
378	High-Performance Two-Dimensional Perovskite Ca ₂ Nb ₃ O ₁₀ UV Photodetectors. Nano Letters, 2021, 21, 382-388.	4.5	98
379	Tunneling-assisted highly sensitive and stable lead-free Cs ₃ Bi ₂ I ₉ perovskite photodetectors for diffuse reflection imaging. Journal of Materials Chemistry C, 2021, 9, 1008-1013.	2.7	25

#	ARTICLE	IF	CITATIONS
380	Cocrystal Engineering: Toward Solution-Processed Near-Infrared 2D Organic Cocrystals for Broadband Photodetection. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 6344-6350.	7.2	43
381	Evaluation of Carbon Based Molecular Junctions as Practical Photosensors. <i>ACS Sensors</i> , 2021, 6, 513-522.	4.0	11
382	An overview of rare earth coupled lead halide perovskite and its application in photovoltaics and light emitting devices. <i>Progress in Materials Science</i> , 2021, 120, 100737.	16.0	35
383	Solution-Grown Organic and Perovskite X-Ray Detectors: A New Paradigm for the Direct Detection of Ionizing Radiation. <i>Advanced Materials Technologies</i> , 2021, 6, 2000475.	3.0	89
384	A short review on inorganic thin films from device perspective. , 2021, , 231-275.		3
385	Programmed Molecular Assembly of Abrupt Crystalline Organic/Organic Heterointerfaces Yielding Metal-Organic Framework Diodes with Large On-Off Ratios. <i>Advanced Science</i> , 2021, 8, 2001884.	5.6	18
386	Infrared colloidal quantum dots for photoelectric conversion devices. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2994-3025.	2.7	9
387	Trends in Performance Limits of the HOT Infrared Photodetectors. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 501.	1.3	48
388	Perovskite photodetectors and their application in artificial photonic synapses. <i>Chemical Communications</i> , 2021, 57, 11429-11442.	2.2	27
389	Pressure-Induced Perovskite-to-non-Perovskite Phase Transition in CsPbBr ₃ . <i>Helvetica Chimica Acta</i> , 2021, 104, e2000222.	1.0	8
390	Construction of PtSe ₂ /Ge heterostructure-based short-wavelength infrared photodetector array for image sensing and optical communication applications. <i>Nanoscale</i> , 2021, 13, 7606-7612.	2.8	27
391	Development of low bandgap polymers for red and near-infrared fullerene-free organic photodetectors. <i>New Journal of Chemistry</i> , 2021, 45, 10872-10879.	1.4	6
392	Non-fullerene-based organic photodetectors for infrared communication. <i>Journal of Materials Chemistry C</i> , 2021, 9, 2375-2380.	2.7	37
393	Progress in Quantum Dot Infrared Photodetectors. <i>Lecture Notes in Nanoscale Science and Technology</i> , 2021, , 1-74.	0.4	3
394	Reduced Graphene Oxide Photodetector Devices for Infra-Red Sensing. <i>Advances in Sustainability Science and Technology</i> , 2021, , 349-369.	0.4	1
395	Precise Control of the Oxidation State of PbS Quantum Dots Using Rapid Thermal Annealing for Infrared Photodetectors. <i>ACS Applied Nano Materials</i> , 2021, 4, 1-6.	2.4	12
396	Effect of interface modification on performances of organic-inorganic hybrid perovskite solar cells. <i>Wuli Xuebao/Acta Physica Sinica</i> , 2021, 70, 028402.	0.2	1
397	Recent advances in radiation detection technologies enabled by metal-halide perovskites. <i>Materials Advances</i> , 2021, 2, 6744-6767.	2.6	20

#	ARTICLE	IF	CITATIONS
398	Ultrasensitive UV-NIR broadband phototransistors based on AgBiS ₂ organic hybrid films. <i>Journal of Materials Chemistry C</i> , 2021, 9, 7583-7590.	2.7	10
399	A p-type PbS quantum dot ink with improved stability for solution processable optoelectronics. <i>Chemical Communications</i> , 2021, 57, 8091-8094.	2.2	4
400	Nucleation management for the ambient fabrication of high-performance perovskite photodetectors with the eco-friendly <i>tert</i> -butanol anti-solvent. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8650-8658.	2.7	4
401	Ultrahigh Detectivity in Spatially Separated Hole/Electron Dual Traps Based Near-Infrared Organic Phototransistor. <i>Advanced Optical Materials</i> , 2021, 9, 2002031.	3.6	20
402	A review on solution-processed perovskite/organic hybrid photodetectors. <i>Journal of Materials Chemistry C</i> , 2021, 9, 5302-5322.	2.7	44
403	Metal halide perovskite nanocrystals: application in high-performance photodetectors. <i>Materials Advances</i> , 2021, 2, 856-879.	2.6	18
404	A silicon-based PbSe quantum dot near-infrared photodetector with spectral selectivity. <i>Nanoscale</i> , 2021, 13, 12306-12313.	2.8	19
405	Few-layered two-dimensional molecular crystals for organic artificial visual memories with record-high photoresponse. <i>Journal of Materials Chemistry C</i> , 2021, 9, 8834-8841.	2.7	10
406	Photoconductive PbSe thin films for infrared imaging. <i>Materials Advances</i> , 2021, 2, 3133-3160.	2.6	32
407	Recent Progress of Flexible Image Sensors for Biomedical Applications. <i>Advanced Materials</i> , 2021, 33, e2004416.	11.1	117
408	Organic Upconversion Imager with Dual Electronic and Optical Readouts for Shortwave Infrared Light Detection. <i>Advanced Functional Materials</i> , 2021, 31, 2100565.	7.8	33
409	Polyhydroxy Ester Stabilized Perovskite for Low Noise and Large Linear Dynamic Range of Self-Powered Photodetectors. <i>Nano Letters</i> , 2021, 21, 1500-1507.	4.5	33
410	Ultralow dark current infrared photodetector based on SnTe quantum dots beyond 2 μ m at room temperature. <i>Nanotechnology</i> , 2021, 32, 195602.	1.3	3
411	Carbon Nanoparticles as Versatile Auxiliary Components of Perovskite-Based Optoelectronic Devices. <i>Advanced Functional Materials</i> , 2021, 31, 2010768.	7.8	31
412	Cocrystal Engineering: Toward Solution-Processed Near-Infrared 2D Organic Cocrystals for Broadband Photodetection. <i>Angewandte Chemie</i> , 2021, 133, 6414-6420.	1.6	5
413	Enhanced deep-ultraviolet sensing by an all-inorganic p-PZT/n-Ga ₂ O ₃ thin-film heterojunction. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 195104.	1.3	11
414	van der Waals Interaction-Induced Tunable Schottky Barriers in Metal-2D Perovskite Contacts. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1718-1725.	2.1	11
415	Advances in Metal Halide Perovskite Film Preparation: The Role of Anti-Solvent Treatment. <i>Small Methods</i> , 2021, 5, e2100046.	4.6	39

#	ARTICLE	IF	CITATIONS
416	Effective Dark Current Suppression for High-Detectivity Organic Near-Infrared Photodetectors Using a Non-Fullerene Acceptor. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 11144-11150.	4.0	32
417	Spectral Discrimination Sensors Based on Nanomaterials and Nanostructures: A Review. <i>IEEE Sensors Journal</i> , 2021, 21, 4044-4060.	2.4	8
418	Recent Advances in Perovskite Photodetectors for Image Sensing. <i>Small</i> , 2021, 17, e2005606.	5.2	111
419	Tailored Design of Experiments Approach for Device Performance Prediction and Optimization of Flash-Evaporated Organic-Inorganic Halide Perovskite-Based Photodetectors. <i>Advanced Materials Technologies</i> , 2021, 6, 2001131.	3.0	5
420	Denosing Autoencoder Aided Spectrum Reconstruction for Colloidal Quantum Dot Spectrometers. <i>IEEE Sensors Journal</i> , 2021, 21, 6450-6458.	2.4	11
421	Organic single crystal phototransistors: Recent approaches and achievements. <i>Frontiers of Physics</i> , 2021, 16, 1.	2.4	7
423	Liquid-Exfoliated 2D Materials for Optoelectronic Applications. <i>Advanced Science</i> , 2021, 8, e2003864.	5.6	77
424	Organic photodetector with built-in amplification for the detection of visible light with low optical power. <i>Organic Electronics</i> , 2021, 90, 106064.	1.4	4
425	Basic Characteristics of Photo-Resistive Photodetectors Based on Composite of Poly(3-Hexylthiophene) and Silicon Nanoparticles. <i>Moscow University Physics Bulletin (English)</i> Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 01		
426	Solution-Processed MoS ₂ Film with Functional Interfaces via Precursor-Assisted Chemical Welding. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 12221-12229.	4.0	19
427	Enhanced Weak-Light Detection of Perovskite Photodetectors through Perovskite/Hole-Transport Material Interface Treatment. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 16775-16783.	4.0	21
428	Colloidal quantum dot photodetectors with 10-ns response time and 80% quantum efficiency at 1,550Ånm. <i>Matter</i> , 2021, 4, 1042-1053.	5.0	88
429	Carbon-Bridged 1,2-Bis(2-thienyl)ethylene: An Extremely Electron Rich Dithiophene Building Block Enabling Electron Acceptors with Absorption above 1000 nm for Highly Sensitive NIR Photodetectors. <i>Journal of the American Chemical Society</i> , 2021, 143, 4281-4289.	6.6	72
430	Environment-friendly antisolvent tert-amyl alcohol modified hybrid perovskite photodetector with high responsivity. <i>Photonics Research</i> , 2021, 9, 781.	3.4	13
431	Double-Side Crystallization Tuning to Achieve over 1Åµm Thick and Well-Aligned Block-Like Narrow-Bandgap Perovskites for High-Efficiency Near-Infrared Photodetectors. <i>Advanced Functional Materials</i> , 2021, 31, 2010532.	7.8	16
432	Smart Strategy: Transparent Hole-Transporting Polymer as a Regulator to Optimize Photomultiplication-type Polymer Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 21565-21572.	4.0	55
433	Solution-processed near-infrared Cu(In,Ga)(S,Se) ₂ photodetectors with enhanced chalcopyrite crystallization and bandgap grading structure via potassium incorporation. <i>Scientific Reports</i> , 2021, 11, 7820.	1.6	12
434	High-Performance Flexible Self-Powered Photodetectors Utilizing Spontaneous Electron and Hole Separation in Quasi-2D Halide Perovskites. <i>Small</i> , 2021, 17, e2100442.	5.2	26

#	ARTICLE	IF	CITATIONS
435	Broadband Ultraviolet Photodetectors Based on Cerium Doped Lead-Free Cs ₃ MnBr ₅ Metal Halide Nanocrystals. ACS Sustainable Chemistry and Engineering, 2021, 9, 4980-4987.	3.2	29
436	Perovskite random lasers: a tunable coherent light source for emerging applications. Nanotechnology, 2021, 32, 282001.	1.3	26
437	Broadband Photoresponsive Bismuth Halide Hybrid Semiconductors Built with π -Stacked Photoactive Polycyclic Viologen. Inorganic Chemistry, 2021, 60, 5538-5544.	1.9	24
438	'Quantum dots: Perspectives in next-generation chemical gas sensors' A review. Analytica Chimica Acta, 2021, 1152, 238192.	2.6	72
439	Stretchable Inorganic GaN-Nanowire Photosensor with High Photocurrent and Photoresponsivity. ACS Applied Materials & Interfaces, 2021, 13, 22728-22737.	4.0	15
440	Photomultiplication-Type Organic Photodetectors with Fast Response Enabled by the Controlled Charge Trapping Dynamics of Quantum Dot Interlayer. Advanced Functional Materials, 2021, 31, 2102087.	7.8	29
441	66: Invited Paper: Graphene Enhanced QD Image Sensor Technology. Digest of Technical Papers SID International Symposium, 2021, 52, 987-990.	0.1	11
442	Ambipolar carbon nanotube transistors with hybrid nanodielectric for low-voltage CMOS-like electronics. Nano Futures, 2021, 5, 025001.	1.0	10
443	Temperature-Gradient-Controlled Method Enabling Shape Control of 2D Perovskite Single Crystals for Photodetection. Physica Status Solidi - Rapid Research Letters, 0, , 2100099.	1.2	3
444	An Efficient Narrowband Near-Infrared at 1040nm Organic Photodetector Realized by Intermolecular Charge Transfer Mediated Coupling Based on a Squaraine Dye. Advanced Materials, 2021, 33, e2100582.	11.1	88
445	Narrowband Near-Infrared Photodetector Enabled by Dual Functional Internal-Filter-Induced Selective Charge Collection. Advanced Optical Materials, 2021, 9, 2100288.	3.6	26
446	Design of sensitizer with suitable frontier molecular orbital via substitution on starburst triphenylamine derivative. Journal of Molecular Modeling, 2021, 27, 167.	0.8	1
447	Nanohybrid Photodetectors. Advanced Photonics Research, 2021, 2, 2100015.	1.7	9
448	Enhanced Static and Dynamic Properties of Highly Miscible Fullerene-Free Green-Selective Organic Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 25164-25174.	4.0	16
449	Semitransparent Layers of Social Self-Sorting Merocyanine Dyes for Ultranarrow Bandwidth Organic Photodiodes. Advanced Optical Materials, 2021, 9, 2100213.	3.6	9
450	A Visible-Blind Photodetector and Artificial Optoelectronic Synapse Using Liquid-Metal Exfoliated ZnO Nanosheets. Advanced Optical Materials, 2021, 9, 2100449.	3.6	41
451	Optical Distance Measurement Based on Induced Nonlinear Photoresponse of High-Performance Organic Near-Infrared Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 23239-23246.	4.0	14
452	Broadband Detection of X-ray, Ultraviolet, and Near-Infrared Photons using Solution-Processed Perovskite-Lanthanide Nanotransducers. Advanced Materials, 2021, 33, e2101852.	11.1	51

#	ARTICLE	IF	CITATIONS
453	2D/3D Hybrid of MoS ₂ /GaN for a High-Performance Broadband Photodetector. ACS Applied Electronic Materials, 2021, 3, 2407-2414.	2.0	70
454	Counterion Gradients around Charged Metal Nanoparticles Enabling Basic Electronics without Semiconductors. Journal of Physical Chemistry Letters, 2021, 12, 6102-6110.	2.1	2
455	Fast Response Organic Tandem Photodetector for Visible and Near-Infrared Digital Optical Communications. Small, 2021, 17, e2101316.	5.2	49
456	The role of traps in dark current and photocurrent of chemical bath deposition grown nano-domains PbS/GaAs heterojunction layers. Journal of Applied Physics, 2021, 129, 214504.	1.1	0
457	Toward Green Optoelectronics: Environmental-Friendly Colloidal Quantum Dots Photodetectors. Frontiers in Energy Research, 2021, 9, .	1.2	15
458	Supramolecular engineering of charge transfer in wide bandgap organic semiconductors with enhanced visible-to-NIR photoresponse. Nature Communications, 2021, 12, 3667.	5.8	30
459	Boosting Photovoltaic Performance in Organic Solar Cells by Manipulating the Size of MoS ₂ Quantum Dots as a Hole-Transport Material. Nanomaterials, 2021, 11, 1464.	1.9	15
460	Influence of Temperature on Photodetection Properties of Honeycomb-Like GaN Nanostructures. Advanced Materials Interfaces, 2021, 8, 2100593.	1.9	12
461	Cavity-Enhanced Near-Infrared Organic Photodetectors Based on a Conjugated Polymer Containing [1,2,5]Selenadiazolo[3,4- <i>c</i>]Pyridine. Chemistry of Materials, 2021, 33, 5147-5155.	3.2	29
462	Wavelength-Selective Organic Photodetectors. Advanced Functional Materials, 2021, 31, 2104060.	7.8	48
463	Broadband infrared photodetection using a narrow bandgap conjugated polymer. Science Advances, 2021, 7, .	4.7	49
464	Advances in metal halide perovskite lasers: synthetic strategies, morphology control, and lasing emission. Advanced Photonics, 2021, 3, .	6.2	47
465	Highly Efficient and Thickness Insensitive Inverted Triple-Cation Perovskite Solar Cells Fabricated by Gas Pumping Method. Journal of Physical Chemistry Letters, 2021, 12, 5580-5586.	2.1	6
466	Single-crystal halide perovskites: Opportunities and challenges. Matter, 2021, 4, 2266-2308.	5.0	35
467	Embedding of Ti ₃ C ₂ T _x Nanocrystals in MAPbI ₃ Microwires for Improved Responsivity and Detectivity of Photodetector. Small, 2021, 17, e2101954.	5.2	14
468	Ultrasensitive Photodetectors Promoted by Interfacial Charge Transfer from Layered Perovskites to Chemical Vapor Deposition-Grown MoS ₂ . Small, 2021, 17, e2102461.	5.2	14
469	Universal Strategy for Improving Perovskite Photodiode Performance: Interfacial Built-In Electric Field Manipulated by Unintentional Doping. Advanced Science, 2021, 8, e2101729.	5.6	17
470	Recent Progress of Organic Photovoltaics with Efficiency over 17%. Energies, 2021, 14, 4200.	1.6	75

#	ARTICLE	IF	CITATIONS
471	Liquid medium annealing for fabricating durable perovskite solar cells with improved reproducibility. <i>Science</i> , 2021, 373, 561-567.	6.0	227
472	Oriented Halide Perovskite Nanostructures and Thin Films for Optoelectronics. <i>Chemical Reviews</i> , 2021, 121, 12112-12180.	23.0	70
473	Solution Epitaxy of Halide Perovskite Thin Single Crystals for Stable Transistors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 37840-37848.	4.0	6
474	Light-Emitting OD Hybrid Metal Halide (C ₃ H ₁₂ N ₂) ₂ Sb ₂ Cl ₁₀ with Antimony Dimers. <i>Inorganic Chemistry</i> , 2021, 60, 11429-11434.	1.9	13
475	Highly Sensitive Narrowband Photomultiplication-Type Organic Photodetectors Prepared by Transfer-Printed Technology. <i>Advanced Functional Materials</i> , 2021, 31, 2106009.	7.8	108
476	Electrically Switchable Color-Selective Organic Photodetectors for Full-Color Imaging. <i>ACS Nano</i> , 2021, 15, 13674-13682.	7.3	41
477	Ultrathin and Ultrasensitive Direct X-Ray Detector Based on Heterojunction Phototransistors. <i>Advanced Materials</i> , 2021, 33, e2101717.	11.1	38
479	CMOS-Compatible Bias-Tunable Dual-Band Detector Based on GeSn/Ge/Si Coupled Photodiodes. <i>ACS Photonics</i> , 2021, 8, 2166-2173.	3.2	36
480	Deep learning for ultra-fast and high precision screening of energy materials. <i>Energy Storage Materials</i> , 2021, 39, 45-53.	9.5	23
481	Improved Charge Transport in PbS Quantum Dot Thin Films following Gel Permeation Chromatography Purification. <i>Journal of Physical Chemistry C</i> , 2021, 125, 17796-17805.	1.5	2
482	Flexible and Air-Stable Near-Infrared Sensors Based on Solution-Processed Inorganic-Organic Hybrid Phototransistors. <i>Advanced Functional Materials</i> , 2021, 31, 2105887.	7.8	47
483	Strong Interlayer Transition in Few-Layer InSe/PdSe ₂ van der Waals Heterostructure for Near-Infrared Photodetection. <i>Advanced Functional Materials</i> , 2021, 31, 2104143.	7.8	69
484	Spectrum-shaped Si-perovskite hybrid photodetectors for hyperspectral bioimaging. <i>Photonics Research</i> , 2021, 9, 1734.	3.4	15
485	Two-Dimensional Antimony-Based Perovskite-Inspired Materials for High-Performance Self-Powered Photodetectors. <i>Advanced Functional Materials</i> , 2021, 31, 2106295.	7.8	32
486	A Wavelength-Tunable Multi-Functional Transistor with Visible-Light Detection and Inverse Photomemory for Logic Gate and Retina Emulation. <i>Advanced Optical Materials</i> , 2021, 9, 2100654.	3.6	25
487	Local Structure of Multinary Hybrid Lead Halide Perovskites Investigated by Nuclear Quadrupole Resonance Spectroscopy. <i>Chemistry of Materials</i> , 2021, 33, 6965-6973.	3.2	13
488	Direct photoinduced synthesis of lead halide perovskite nanocrystals and nanocomposites. <i>Nano Today</i> , 2021, 39, 101179.	6.2	22
489	Ultra-High Performance Amorphous Ga ₂ O ₃ Photodetector Arrays for Solar-Blind Imaging. <i>Advanced Science</i> , 2021, 8, e2101106.	5.6	91

#	ARTICLE	IF	CITATIONS
490	Semiconductor quantum dots: Technological progress and future challenges. <i>Science</i> , 2021, 373, .	6.0	600
491	Radiation Detection Technologies Enabled by Halide Perovskite Single Crystals. , 2022, , 97-118.		1
492	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.	8.2	68
493	Self-powered visible photodetector with fast-response speed and high stability based on vertical (In,Ga)N nanowires. <i>OSA Continuum</i> , 2021, 4, 2381.	1.8	8
494	Quantum dots/graphene nanohybrids photodetectors: progress and perspective. <i>Nano Express</i> , 2021, 2, 031002.	1.2	1
495	Transfer-Printed Nanoscale Poly(3-hexylthiophene-2,5-diyl) Layers for Organic Photodetectors. <i>ACS Applied Nano Materials</i> , 2021, 4, 10725-10734.	2.4	4
496	Controlling photocurrent direction with light. <i>Nature Electronics</i> , 2021, 4, 631-632.	13.1	5
497	Miniaturized VIS&NIR Spectrometers Based on Narrowband and Tunable Transmission Cavity Organic Photodetectors with Ultrahigh Specific Detectivity above 10^{14} Jones. <i>Advanced Materials</i> , 2021, 33, e2102967.	11.1	58
498	Facile Fabrication of Highly Stable and Wavelength-Tunable Tin Based Perovskite Materials with Enhanced Quantum Yield via the Cation Transformation Reaction. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 8763-8769.	2.1	10
499	Ink-Lithography for Property Engineering and Patterning of Nanocrystal Thin Films. <i>ACS Nano</i> , 2021, 15, 15667-15675.	7.3	23
500	Bidirectional photocurrent in p&N heterojunction nanowires. <i>Nature Electronics</i> , 2021, 4, 645-652.	13.1	129
501	Sensitive, High&Speed, and Broadband Perovskite Photodetectors with Built&in TiO ₂ Metalenses. <i>Small</i> , 2021, 17, e2102694.	5.2	4
502	Use of Organic Polymer P3HT:PC61BM as the Active Layer to Improve the Performance of ZnO Ultraviolet Photodetector. <i>Journal of Physical Chemistry C</i> , 2021, 125, 20639-20649.	1.5	9
503	On-Chip Ge Photodetector Efficiency Enhancement by Local Laser-Induced Crystallization. <i>Nano Letters</i> , 2021, 21, 7472-7478.	4.5	6
504	Lead&Free Double Perovskite Cs ₂ AgBiBr ₆ : Fundamentals, Applications, and Perspectives. <i>Advanced Functional Materials</i> , 2021, 31, 2105898.	7.8	166
505	Perovskite Origami for Programmable Microtube Lasing. <i>Advanced Functional Materials</i> , 2021, 31, 2109080.	7.8	14
506	Fabrication of PCDTBT Conductive Network via Phase Separation. <i>Materials</i> , 2021, 14, 5071.	1.3	2
507	Flexible Metal Halide Perovskite Photodetector Arrays via Photolithography and Dry Lift&Off Patterning. <i>Advanced Engineering Materials</i> , 2022, 24, 2100930.	1.6	19

#	ARTICLE	IF	CITATIONS
508	Selective Energy Contacts and Multi-Wavelength Solution-Processed Quantum Dot Infrared Photodetector. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.0	1
509	Solution-processable infrared photodetectors: Materials, device physics, and applications. Materials Science and Engineering Reports, 2021, 146, 100643.	14.8	49
510	Rational design of colloidal AgGaS ₂ /CdSeS core/shell quantum dots for solar energy conversion and light detection. Nano Energy, 2021, 89, 106392.	8.2	39
511	Forming laterally structured heterojunction with FAPbI ₃ film for improving performance of MAPbBr ₃ photodetectors. Optical Materials, 2021, 121, 111586.	1.7	7
512	The role of graphitic C ₃ N ₄ in improving the photovoltaic performance of CdS quantum dots sensitized solar cells. Inorganic Chemistry Communication, 2021, 133, 108919.	1.8	1
513	Employing liquid crystal material as regulator to enhance performance of photomultiplication type polymer photodetectors. Chemical Engineering Journal, 2022, 427, 131802.	6.6	71
514	Towards fluorinated Ruddlesden-Popper perovskites with enhanced physical properties: a study on (3-FC ₆ H ₄ CH ₂ CH ₂ NH ₃) ₂ PbI ₄ single crystals. Materials Chemistry Frontiers, 2021, 5, 4645-4657.		6
515	Oxygen vacancies modulating the photodetector performances in μ -Ga ₂ O ₃ thin films. Journal of Materials Chemistry C, 2021, 9, 5437-5444.	2.7	66
516	Interface Engineering of a Silicon/Graphene Heterojunction Photodetector via a Diamond-Like Carbon Interlayer. ACS Applied Materials & Interfaces, 2021, 13, 4692-4702.	4.0	18
517	UV-vis/X-ray/thermo-induced synthesis and UV-SWIR photoresponsive property of a mixed-valence viologen molybdate semiconductor. Chemical Communications, 2021, 57, 5550-5553.	2.2	14
518	Quantum Dot/Graphene Heterostructure Nanohybrid Photodetectors. Lecture Notes in Nanoscale Science and Technology, 2021, , 215-248.	0.4	4
519	Flexo-photoelectronic effect in n-type/p-type two-dimensional semiconductors and a deriving light-stimulated artificial synapse. Materials Horizons, 2021, 8, 1985-1997.	6.4	16
520	A New Assessment of the Performance of Low-noise Organic Photodetectors. , 2021, , .		0
521	Stable CsPbI_3 Perovskite Nanowire Arrays with Preferential Crystallographic Orientation for Highly Sensitive Photodetectors. Advanced Functional Materials, 2019, 29, 1808741.	7.8	78
522	Progress of Lead-Free Halide Perovskites: From Material Synthesis to Photodetector Application. Advanced Functional Materials, 2021, 31, 2008275.	7.8	52
523	Toward Perovskite Solar Cell Commercialization: A Perspective and Research Roadmap Based on Interfacial Engineering. Advanced Materials, 2018, 30, e1800455.	11.1	332
524	Localized Surface Plasmon Resonance Enhanced Light Absorption in AuCu/CsPbCl ₃ Core/Shell Nanocrystals. Advanced Materials, 2020, 32, e2002163.	11.1	59
525	Stacked Dual-Wavelength Near-Infrared Organic Photodetectors. Advanced Optical Materials, 2021, 9, 2001784.	3.6	40

#	ARTICLE	IF	CITATIONS
526	Analyzing and Tuning the Chalcogenâ€“Amineâ€“Thiol Complexes for Tailoring of Chalcogenide Syntheses. <i>Inorganic Chemistry</i> , 2020, 59, 8240-8250.	1.9	14
527	Halide Perovskites With Ambipolar Transport Properties for Transistor Applications. <i>RSC Smart Materials</i> , 2020, , 41-82.	0.1	2
528	Self-powered broadband photodetector based on a solution-processed p-NiO/n-CdS:Al heterojunction. <i>Nanotechnology</i> , 2021, 32, 095202.	1.3	11
529	High-performance perovskite photodetectors based on CH ₃ NH ₃ PbBr ₃ quantum dot/TiO ₂ heterojunction. <i>Nanotechnology</i> , 2021, 32, 085201.	1.3	13
530	Theoretical study of a group IV pâ€“iâ€“n photodetector with a flat and broad response for visible and infrared detection. <i>Journal of Semiconductors</i> , 2020, 41, 122402.	2.0	3
531	Near-infrared and visible light dual-mode organic photodetectors. <i>Science Advances</i> , 2020, 6, eaaw8065.	4.7	156
532	Diamond based photodetectors for solar-blind communication. <i>Optics Express</i> , 2019, 27, 29962.	1.7	65
533	On-chip colloidal quantum dot devices with a CMOS compatible architecture for near-infrared light sensing. <i>Optics Letters</i> , 2019, 44, 463.	1.7	14
534	Microcrystal modulated exciton-polariton emissions from single ZnO@ZnO:Ga microwire. <i>Photonics Research</i> , 2020, 8, 175.	3.4	22
535	Atomic layer deposition for quantum dots based devices. <i>Opto-Electronic Advances</i> , 2020, 3, 19004301-19004314.	6.4	29
536	Field Effect Phototransistor Based on Thin Film Ag ₂ S Nanocrystals. , 2021, , .		0
537	OD Perovskites: Unique Properties, Synthesis, and Their Applications. <i>Advanced Science</i> , 2021, 8, e2102689.	5.6	142
538	An Efficient 4H-SiC Photodiode for UV Sensing Applications. <i>Electronics (Switzerland)</i> , 2021, 10, 2517.	1.8	8
539	Room-Temperature Direct Synthesis of PbSe Quantum Dot Inks for High-Detectivity Near-Infrared Photodetectors. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 51198-51204.	4.0	20
540	High Sensitivity Shortwave Infrared Photodetector Based on PbS QDs Using P3HT. <i>Nanomaterials</i> , 2021, 11, 2683.	1.9	7
541	Progress on growth of metal halide perovskites by vapor-phase synthesis and their applications. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 073001.	1.3	10
542	Photocharging of Colloidal CdS Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2021, 125, 22650-22659.	1.5	13
543	Mechanism, Material, Design, and Implementation Principle of Two-Dimensional Material Photodetectors. <i>Nanomaterials</i> , 2021, 11, 2688.	1.9	17

#	ARTICLE	IF	CITATIONS
544	Research progress of solution processed all-inorganic perovskite solar cell. Wuli Xuebao/Acta Physica Sinica, 2019, 68, 158806.	0.2	4
545	Systematic strategy for high-performance small molecular hybrid white OLED via blade coating at ambient condition. Organic Electronics, 2022, 100, 106366.	1.4	7
546	New n-type semiconductor material based on styryl fullerene for organic field-effect transistors. Mendeleev Communications, 2021, 31, 641-643.	0.6	8
547	Solution-processed crystalline organic integrated circuits. Matter, 2021, 4, 3415-3443.	5.0	9
548	Solver-informed neural networks for spectrum reconstruction of colloidal quantum dot spectrometers. Optics Express, 2020, 28, 33656.	1.7	22
549	Lateral monolayer MoS ₂ homojunction devices prepared by nitrogen plasma doping. Nanotechnology, 2021, 32, 015701.	1.3	2
550	Enhanced Performance of PTB7:PC ₇₁ BM Based Organic Solar Cells by Incorporating a Nano-Layered Electron Transport of Titanium Oxide. ECS Journal of Solid State Science and Technology, 2020, 9, 105003.	0.9	8
551	Silicon: quantum dot photovoltage triodes. Nature Communications, 2021, 12, 6696.	5.8	22
552	New Low-Dimensional Hybrid Perovskitoids Based on Lead Bromide with Organic Cations from Charge-Transfer Complexes. Crystals, 2021, 11, 1424.	1.0	4
553	Toward Stable and Efficient Perovskite Light-Emitting Diodes. Advanced Functional Materials, 2022, 32, 2109495.	7.8	77
554	Effects of Halogen Substitution on the Optoelectronic Properties of Two-Dimensional All-Inorganic Double Perovskite $Cs_{4}Ag$		

#	ARTICLE	IF	CITATIONS
562	Photoelectric effect of hybrid ultraviolet-sensitized phototransistors from an n-type organic semiconductor and an all-inorganic perovskite quantum dot photosensitizer. <i>Nanoscale</i> , 2021, 13, 20498-20507.	2.8	5
563	Visible to Mid-Infrared Photodetection Based on Flexible 3D Graphene/Organic Hybrid Photodetector with Ultrahigh Responsivity at Ambient Conditions. <i>ACS Photonics</i> , 2022, 9, 59-67.	3.2	30
564	Influence of device architectures and mobility on response/recovery time of metal halide perovskites: A review. <i>Journal of Materials Science</i> , 2022, 57, 1555-1580.	1.7	8
565	One-step synthesized PbSe nanocrystal inks decorated 2D MoS ₂ heterostructure for high stability photodetectors with photoresponse extending to near-infrared region. <i>Journal of Materials Chemistry C</i> , 2022, 10, 2236-2244.	2.7	18
566	Quasi-Zero Dimensional Halide Perovskite Derivates: Synthesis, Status, and Opportunity. <i>Frontiers in Electronics</i> , 0, 2, .	2.0	4
567	Enhanced Photoluminescence Quantum Yield, Lifetime, and Photodetector Responsivity of CsPbBr ₃ Quantum Dots via Antimony Tribromide Post-Treatment. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1462-1470.	1.5	14
568	Engineering of the alkyl chain branching point on a lactone polymer donor yields 17.81% efficiency. <i>Journal of Materials Chemistry A</i> , 2022, 10, 3314-3320.	5.2	17
569	A Review on Solution-Processed Organic Phototransistors and Their Recent Developments. <i>Electronics (Switzerland)</i> , 2022, 11, 316.	1.8	24
570	Highly Anisotropic Organometal Halide Perovskite Nanowalls Grown by Glancing-Angle Deposition. <i>Advanced Materials</i> , 2022, 34, e2107739.	11.1	5
571	Towards Perfect Absorption of Single Layer CVD Graphene in an Optical Resonant Cavity: Challenges and Experimental Achievements. <i>Materials</i> , 2022, 15, 352.	1.3	3
572	MAPbI ₃ Photodetectors with 4.7 MHz Bandwidth and Their Application in Organic Optocouplers. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 815-821.	2.1	5
573	Interfacial Chemistry Triggers Ultrafast Radiative Recombination in Metal Halide Perovskites. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	1
574	A filterless organic photodetector electrically switchable between visible and infrared detection. <i>Cell Reports Physical Science</i> , 2022, 3, 100711.	2.8	15
575	Photomultiplication-Type Organic Photodetectors for Near-Infrared Sensing with High and Bias-Independent Specific Detectivity. <i>Advanced Science</i> , 2022, 9, e2105113.	5.6	33
576	<i>In situ</i> construction of a Te/CsPbBr ₃ heterojunction for self-powered photodetector. <i>RSC Advances</i> , 2022, 12, 2729-2735.	1.7	7
577	Long-Range-Ordered Assembly of Micro/Nanostructures at Superwetting Interfaces. <i>Advanced Materials</i> , 2022, 34, e2106857.	11.1	21
578	Metasurface Colloidal Quantum Dot Photodetectors. <i>ACS Photonics</i> , 2022, 9, 482-492.	3.2	11
579	Chiral Hybrid Copper(I) Halides for High Efficiency Second Harmonic Generation with a Broadband Transparency Window. <i>Angewandte Chemie</i> , 0, , .	1.6	7

#	ARTICLE	IF	CITATIONS
580	Magic-Size Semiconductor Nanostructures: Where Does the Magic Come from?. ACS Materials Au, 2022, 2, 237-249.	2.6	17
581	Polarization Sensitive Solar-Blind Ultraviolet Photodetectors Based on Ultrawide Bandgap KNb ₃ O ₈ Nanobelt with Fringe-Like Atomic Lattice. Advanced Functional Materials, 2022, 32, .	7.8	41
582	Top-Seed Solution-Based Growth of Perovskite Cs ₃ Bi ₂ I ₉ Single Crystal for High Performance X-ray Detection. ACS Photonics, 2022, 9, 641-651.	3.2	25
583	Chiral Hybrid Copper(I) Halides for High Efficiency Second Harmonic Generation with a Broadband Transparency Window. Angewandte Chemie - International Edition, 2022, 61, .	7.2	53
584	Building Supramolecular Chirality in Bulk Heterojunctions Enables Amplified Dissymmetry Current for High-Performing Circularly Polarized Light Detection. , 2022, 4, 401-409.		22
585	Perovskite-Type 2D Materials for High-Performance Photodetectors. Journal of Physical Chemistry Letters, 2022, 13, 1215-1225.	2.1	62
586	Circular Subwavelength Photodetectors for 3D Space Exploration. Advanced Optical Materials, 2022, 10, .	3.6	7
587	Interfacial Chemistry Triggers Ultrafast Radiative Recombination in Metal Halide Perovskites. Angewandte Chemie - International Edition, 2022, 61, .	7.2	22
588	Highly sensitive photomultiplication type polymer photodetectors by manipulating interfacial trapped electron density. Chemical Engineering Journal, 2022, 435, 134973.	6.6	55
589	Achieving Photomultiplication in Dye-Sensitized Narrowband Photodetectors by Electron Injection through a Thin Hole-Transporting Layer. Advanced Optical Materials, 2022, 10, .	3.6	5
590	Interfacial Engineering with Aluminum Oxide toward an Improved Self-Powered Narrowband Visible-Light Photodetection in Lead Halide Perovskite CH ₃ NH ₃ PbBr ₃ /p-Si Heterojunctions. Advanced Materials Interfaces, 2022, 9, .	1.9	9
591	Non-Fullerene Acceptor Organic Photodetector for Skin-Conformable Photoplethysmography Applications. Advanced Materials Interfaces, 2022, 9, .	1.9	25
592	Nanostructured Materials and Architectures for Advanced Optoelectronic Synaptic Devices. Advanced Functional Materials, 2022, 32, .	7.8	45
593	Wafer-Scale Growth of Vertically-Structured SnSe ₂ Nanosheets for Highly Sensitive, Fast-Response UV-Vis-NIR Broadband Photodetectors. Advanced Optical Materials, 2022, 10, .	3.6	10
594	Colloidal Inorganic Ligand-Capped Nanocrystals: Fundamentals, Status, and Insights into Advanced Functional Nanodevices. Chemical Reviews, 2022, 122, 4091-4162.	23.0	52
595	GaS:WS ₂ Heterojunctions for Ultrathin Two-Dimensional Photodetectors with Large Linear Dynamic Range across Broad Wavelengths. ACS Nano, 2021, 15, 19570-19580.	7.3	20
596	Grating Perovskite Enhanced Polarization-Sensitive GaAs-Based Photodetector. IEEE Transactions on Electron Devices, 2022, 69, 2469-2473.	1.6	5
597	Strain coupling and Jahn-Teller effect in efficient and stable sky-blue germanium-lead perovskites. Journal of Materials Chemistry C, 2022, 10, 6827-6836.	2.7	5

#	ARTICLE	IF	CITATIONS
598	Recent progress in polymer-based infrared photodetectors. Journal of Materials Chemistry C, 2022, 10, 13312-13323.	2.7	28
599	<i>In situ</i> growth of a 2D assisted passivation layer enabling high-performance and stable 2D/3D stacked perovskite photodetectors for visible light communication applications. Journal of Materials Chemistry C, 2022, 10, 6846-6856.	2.7	9
601	Photochromic Semiconductive Hydrogen-Bonded Organic Framework (HOF) with Broadband Absorption. ACS Applied Materials & Interfaces, 2022, 14, 11619-11625.	4.0	29
602	Broadband and high-performance SnS ₂ /FePS ₃ /graphene van der Waals heterojunction photodetector. Applied Physics Letters, 2022, 120, .	1.5	14
603	Thermally Stable Organic Field-Effect Transistors Based on Asymmetric BTBT Derivatives for High Performance Solar-Blind Photodetectors. Advanced Science, 2022, 9, e2106085.	5.6	16
604	Facile, Real-Time Identification of Blood Components with Self-Powered Organic-Inorganic Heterostructure Photodetectors. Advanced Optical Materials, 2022, 10, .	3.6	6
605	Recent Progress on Perovskite Photodetectors for Narrowband Detection. Advanced Photonics Research, 2022, 3, .	1.7	21
606	Band-Like Charge Transport in Small-Molecule Thin Film toward High-Performance Organic Phototransistors at Low Temperature. Advanced Optical Materials, 2022, 10, .	3.6	4
607	Quasi-Steady-State Measurement of Exciton Diffusion Lengths in Organic Semiconductors. Physical Review Applied, 2022, 17, .	1.5	12
608	Polymer Electrolyte Dielectrics Enable Efficient Exciton-Polaron Quenching in Organic Semiconductors for Photostable Organic Transistors. ACS Applied Materials & Interfaces, 2022, 14, 13584-13592.	4.0	13
609	Nonlinear plasmon-exciton infrared photodetector operating in the two-photon absorption mode. , 2022, , .		0
610	Hybrid Halide Perovskite-Based Near-Infrared Photodetectors and Imaging Arrays. Advanced Optical Materials, 2022, 10, .	3.6	35
611	Embedding laser generated GaAs nanocrystals in perovskite wires for enhanced charge transport and photodetection. Science China: Physics, Mechanics and Astronomy, 2022, 65, 1.	2.0	1
612	Persistent near-infrared photoconductivity of ZnO nanoparticles based on plasmonic hot charge carriers. Journal of Applied Physics, 2022, 131, .	1.1	2
613	Metal Halide Perovskite Based Heterojunction Photocatalysts. Angewandte Chemie - International Edition, 2022, 61, .	7.2	48
614	Hydration Intermediate Phase Regulated In-Plane and Out-Plane Epitaxy Growth of Oriented Nano-Array Structures on Perovskite Single Crystals. Small, 2022, 18, e2107915.	5.2	6
615	Organic Amine-Bridged Quasi-2D Perovskite/PbS Colloidal Quantum Dots Composites for High-Gain Near-Infrared Photodetectors. Nano Letters, 2022, 22, 2277-2284.	4.5	16
616	Pb ₂ Nanocrystal Growth by Atomic Layer Deposition from Pb(tmhd) ₂ and HI. Chemistry of Materials, 2022, 34, 2553-2561.	3.2	2

#	ARTICLE	IF	CITATIONS
617	Metal Halide Perovskite Based Heterojunction Photocatalysts. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	11
618	Chemical Potential Diagram Guided Rational Tuning of Electrical Properties: A Case Study of CsPbBr ₃ for X-ray Detection. <i>Advanced Materials</i> , 2022, 34, e2110252.	11.1	24
619	Searching for High-Quality Halide Perovskite Single Crystals toward X-ray Detection. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2851-2861.	2.1	24
620	Work-Function-Tunable MXenes Electrodes to Optimize CsCu ₂ I ₃ /n-Ca ₂ Nb ₃ O ₁₀ Junction Photodetectors for Image Sensing and Logic Electronics. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	58
621	High-performance floating-gate organic phototransistors based on n-type core-expanded naphthalene diimides. <i>Chinese Chemical Letters</i> , 2023, 34, 107306.	4.8	1
622	Sub-nanosecond Intrinsic Response Time of PbS Nanocrystal IR-Photodetectors. <i>Nano Letters</i> , 2022, 22, 2809-2816.	4.5	9
623	ZnS Nanosheets in a Polyaniline Matrix as Metallopolymer Nanohybrids for Flexible and Biofriendly Photodetectors. <i>ACS Applied Nano Materials</i> , 2022, 5, 4860-4874.	2.4	34
624	Fullerene-free, MoTe ₂ atomic layer blended bulk heterojunctions for improved organic solar cell and photodetector performance. <i>Journal of Materials Research and Technology</i> , 2022, 17, 2875-2887.	2.6	5
625	A Simple Fused-Ring Acceptor toward High-Sensitivity Binary Near-Infrared Photodetector. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	11
626	Natural Material Inspired Organic Thin-Film Transistors for Biosensing: Properties and Applications. , 2022, 4, 918-937.		17
627	Lead-Free Alloyed Double Perovskites: An Emerging Class of Materials for Optoelectronic Applications. <i>Journal of Physical Chemistry C</i> , 2022, 126, 6753-6760.	1.5	5
628	Design of All-Fused-Ring Nonfullerene Acceptor for Highly Sensitive Self-Powered Near-Infrared Organic Photodetectors. , 2022, 4, 882-890.		27
629	Dual-Band Organic Photodetectors for Dual-Channel Optical Communications. <i>Laser and Photonics Reviews</i> , 2022, 16, .	4.4	25
630	Doping of Sn-based two-dimensional perovskite semiconductor for high-performance field-effect transistors and thermoelectric devices. <i>IScience</i> , 2022, 25, 104109.	1.9	15
631	First-Principles Study on the Direct Bandgap Double Perovskite Series Cs ₂ LiInX ₆ (X = F, Cl, and Br). <i>ACS Omega</i> , 2021, 6, 32408-32416.	1.6	8
632	Colloidal PbS QDs heterostructure photodetector based on high-quality graphene. , 2021, , .		0
633	All in One: A Versatile n-Perovskite/p-Spiro-MeOTAD p-n Heterojunction Diode as a Photovoltaic Cell, Photodetector, and Memristive Photosynapse. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 12098-12106.	2.1	17
634	Energetic Sulfide Vapor-Processed Colloidal InAs Quantum Dot Solids for Efficient Charge Transport and Photoconduction. <i>Advanced Photonics Research</i> , 2022, 3, .	1.7	4

#	ARTICLE	IF	CITATIONS
635	Enhanced Infrared Photodiodes Based on PbS/PbCl ₂ Core/Shell Nanocrystals. ACS Applied Materials & Interfaces, 2021, 13, 58916-58926.	4.0	2
636	Wafer-scale integration of stretchable semiconducting polymer microstructures via capillary gradient. Nature Communications, 2021, 12, 7038.	5.8	23
637	Dual-Stimulus Control for Ultra-Wideband and Multidimensional Modulation in Terahertz Metasurfaces Comprising Graphene and Metal Halide Perovskites. ACS Applied Materials & Interfaces, 2022, 14, 2155-2165.	4.0	13
638	Advances in colloidal quantum dot-based photodetectors. Journal of Materials Chemistry C, 2022, 10, 7404-7422.	2.7	23
639	High-Performance Mid-IR to Deep-UV van der Waals Photodetectors Capable of Local Spectroscopy at Room Temperature. Nano Letters, 2022, 22, 3425-3432.	4.5	6
640	Annealing induced carrier activation and PL enhancement in Ge-on-Si grown by low temperature MBE. Journal of Crystal Growth, 2022, 588, 126668.	0.7	3
642	Inhibition of buried cavities and defects in metal halide perovskite photodetectors via a two-step spin-coating method. Journal of Materials Chemistry C, 2022, 10, 7886-7895.	2.7	13
643	Ultraviolet Narrowband Photomultiplication Type Organic Photodetectors with Fabry-Pérot Resonator Architecture. Advanced Functional Materials, 2022, 32, .	7.8	72
644	Frontier applications of perovskites beyond photovoltaics. Journal of Semiconductors, 2022, 43, 040203.	2.0	7
645	Advances in Photoelectric Detection Units for Imaging Based on Perovskite Materials. Laser and Photonics Reviews, 2022, 16, .	4.4	9
646	Highly sensitive SWIR photodetector using carbon nanotube thin film transistor gated by quantum dots heterojunction. Applied Physics Letters, 2022, 120, .	1.5	3
647	Selective band amplification in ultra-broadband superimposed quantum dot reflective semiconductor optical amplifiers. Applied Optics, 2022, 61, 4509.	0.9	3
648	Perovskite: Scintillators, direct detectors, and X-ray imagers. Materials Today, 2022, 55, 110-136.	8.3	111
649	Enhancing Transition Dipole Moments of Heterocyclic Semiconductors via Rational Nitrogen Substitution for Sensitive Near Infrared Detection. Advanced Materials, 2022, 34, e2201600.	11.1	19
650	Recent Progress and Prospects on Metal Halide Perovskite Nanocrystals as Color Converters in the Fabrication of White Light-Emitting Diodes. Frontiers in Electronic Materials, 2022, 2, .	1.6	5
651	Realization of ultra-flat perovskite films with surprisingly large-grain distribution using high-pressure cooking. Chemical Engineering Journal, 2022, 445, 136803.	6.6	8
652	Doping Compensation Enables High-Detectivity Infrared Organic Photodiodes for Image Sensing. Advanced Materials, 2022, 34, e2201827.	11.1	45
653	Perovskite photodetectors for flexible electronics: Recent advances and perspectives. Applied Materials Today, 2022, 28, 101509.	2.3	12

#	ARTICLE	IF	CITATIONS
654	Spray-Coating Thick Films of All-Inorganic Halide Perovskites for Filterless Narrowband Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 24583-24591.	4.0	14
655	Reconfigurable self-powered imaging photodetectors by reassembling and disassembling ZnO/perovskite heterojunctions. Journal of Materials Chemistry C, 2022, 10, 8922-8930.	2.7	15
656	Electrically Modulated Near-Infrared/Visible Light Dual-Mode Perovskite Photodetectors. ACS Applied Materials & Interfaces, 2022, 14, 25824-25833.	4.0	18
657	Flexible Perovskite and Organic Semiconductor Heterojunction Devices for Tunable Band-Selective Photodetection. ACS Applied Electronic Materials, 2022, 4, 2805-2814.	2.0	8
658	Carbon nanotube logic gates: An interplay of spin and light. Journal of Applied Physics, 2022, 131, .	1.1	3
659	Fluorinated Dielectricsâ€Modulated Organic Phototransistors and Flexible Image Sensors. Advanced Optical Materials, 2022, 10, .	3.6	7
660	Remote epitaxy. Nature Reviews Methods Primers, 2022, 2, .	11.8	47
661	Halide perovskite single crystals: growth, characterization, and stability for optoelectronic applications. Nanoscale, 2022, 14, 9248-9277.	2.8	28
662	Interface Engineering for High Photoresponse in PbS Quantum-Dot Short-Wavelength Infrared Photodiodes. IEEE Electron Device Letters, 2022, 43, 1275-1278.	2.2	3
663	A Heatâ€Liquefiable Solid Precursor for Ambient Growth of Perovskites with High Tunability, Performance and Stability. Small Methods, 2022, 6, .	4.6	4
664	Two-dimensional molecular crystalline semiconductors towards advanced organic optoelectronics. Nano Research, 2022, 15, 9554-9572.	5.8	2
665	Toward an Ultrahigh-Performance Near-Infrared Photoresponsive Field-Effect Transistor Using a Lead Phthalocyanine/MoS ₂ Organicâ€Inorganic Planar Heterojunction. ACS Applied Electronic Materials, 2022, 4, 2777-2786.	2.0	5
666	Solutionâ€Based Integration of Vertically Stacked Organic Photodetectors Toward Easyâ€Toâ€Fabricate Filterless Multiâ€Color Light Sensors. Advanced Optical Materials, 2022, 10, .	3.6	8
667	Optical Metasurfaces for Energy Conversion. Chemical Reviews, 2022, 122, 15082-15176.	23.0	52
668	Effect of Annealing Temperature on Solar-Blind Ultraviolet Photodetectors Based on Solution-Processed Scandium Oxide Films. IEEE Electron Device Letters, 2022, 43, 1507-1510.	2.2	2
669	Controllable Perovskite Single Crystal Heterojunction for Stable Selfâ€Powered Photoâ€Imaging and Xâ€Ray Detection. Advanced Optical Materials, 2022, 10, .	3.6	12
670	Solutionâ€Processed Perovskite/Metalâ€Oxide Hybrid Xâ€Ray Detector and Array with Decoupled Electronic and Ionic Transport Pathways. Small Methods, 2022, 6, .	4.6	11
671	Inorganicâ€Organic Hybrid Phototransistor Array with Enhanced Photogating Effect for Dynamic Near-Infrared Light Sensing and Image Preprocessing. Nano Letters, 2022, 22, 5434-5442.	4.5	19

#	ARTICLE	IF	CITATIONS
672	Chiral Non-Fullerene Acceptor Enriched Bulk Heterojunctions Enable High-Performance Near-Infrared Circularly Polarized Light Detection. <i>Small</i> , 2022, 18, .	5.2	12
673	Ultrasensitive Ferroelectric Semiconductor Phototransistors for Photon-Level Detection. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	12
674	All-Printed Ultrahigh-Responsivity MoS ₂ Nanosheet Photodetectors Enabled by Megasonic Exfoliation. <i>Advanced Materials</i> , 2022, 34, .	11.1	25
675	Perovskite-perovskite junctions for optoelectronics: Fundamentals, processing, and applications. <i>Matter</i> , 2022, 5, 2086-2118.	5.0	8
676	Self-Powered and High-Performance Alternating Current Photodetectors to enhance Broadband Photodetection. <i>Advanced Electronic Materials</i> , 0, , 2200392.	2.6	2
677	A comparative study of the ZnO Fibers-based photodetectors on n-Si and p-Si. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 395102.	1.3	15
678	Alcohol-Stable Perovskite Nanocrystals and Their In Situ Capsulation with Polystyrene. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 33703-33711.	4.0	9
679	A biomineralization-inspired strategy of self-encapsulation for perovskite solar cells. <i>Nano Energy</i> , 2022, 101, 107575.	8.2	10
680	Deep Learning for Additive Screening in Perovskite Light-Emitting Diodes. <i>Angewandte Chemie</i> , 0, , .	1.6	0
681	Deep Learning for Additive Screening in Perovskite Light-Emitting Diodes. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	14
682	Donor-Node-Acceptor Type Hole-Transporting Materials Based on Conjugated Polymers with Perylene Diimide Pendants for High-Performance Vertical-Structure Perovskite Photodetectors. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	1
683	Halide Perovskites as Emerging Anti-Counterfeiting Materials Contribute to Smart Flow of Goods. , 0, .		0
684	Advances in solution-processed quantum dots based hybrid structures for infrared photodetector. <i>Materials Today</i> , 2022, 58, 119-134.	8.3	11
685	High-Performance Broad-Band Photodetection Based on Graphene-MoS ₂ /Se ₂ (1-x) Alloy Engineered Phototransistors. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 34875-34883.	4.0	12
686	Sub-millimetre light detection and ranging using perovskites. <i>Nature Electronics</i> , 2022, 5, 511-518.	13.1	28
687	3D Meniscus-Guided Evaporative Assembly for Rapid Template-Free Synthesis of Highly Crystalline Perovskite Nanowire Arrays. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	5
688	Highly Sensitive Broadband Photodetector Based on Pb ₂ -Passivated CdS:Mn Quantum Dots with a Spectrally Flat Response. <i>Journal of Physical Chemistry C</i> , 2022, 126, 14634-14641.	1.5	1
689	Multifunctional Organic Vertical Photodiodes for Photo-Detection and Photo-Synapse Enabled by Modulation of the Interface Energy Barrier. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	19

#	ARTICLE	IF	CITATIONS
690	Monolithic Integration of Perovskite Photoabsorbers with IGZO Thin-Film Transistor Backplane for Phototransistor-Based Image Sensor. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	10
691	Narrowband Monolithic Perovskite-Perovskite Tandem Photodetectors. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	7
692	Improving Photoelectric Conversion with Broadband Perovskite Metasurface. <i>Nano Letters</i> , 2022, 22, 6655-6663.	4.5	11
693	Perovskite superlattices with efficient carrier dynamics. <i>Nature</i> , 2022, 608, 317-323.	13.7	66
694	High carrier mobility and strong fluorescence emission: Toward highly sensitive single-crystal organic phototransistors. <i>Aggregate</i> , 2023, 4, .	5.2	8
695	Development of Solution-Processed Perovskite Semiconductors Lasers. <i>Crystals</i> , 2022, 12, 1274.	1.0	1
696	Induction of Chiral Hybrid Metal Halides from Achiral Building Blocks. <i>Journal of the American Chemical Society</i> , 2022, 144, 16471-16479.	6.6	29
697	Artificial synapses enabled neuromorphic computing: From blueprints to reality. <i>Nano Energy</i> , 2022, 103, 107744.	8.2	20
698	High performance inorganic filterless narrowband photodetectors. <i>Materials Letters</i> , 2022, 328, 133138.	1.3	0
699	A BODIPY small molecule as hole transporting material for efficient perovskite solar cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 4322-4330.	2.5	4
700	Broadband-tunable spectral response of perovskite-on-paper photodetectors using halide mixing. <i>Nanoscale</i> , 2022, 14, 14057-14063.	2.8	1
701	Optimizing ionic strength of interfacial electric double layer for ultrahigh external quantum efficiency of photomultiplication-type organic photodetectors. <i>Journal of Materials Chemistry C</i> , 2022, 10, 15160-15167.	2.7	2
702	Regulating interface Schottky barriers toward a high-performance self-powered imaging photodetector. <i>RSC Advances</i> , 2022, 12, 25881-25889.	1.7	4
703	Elucidating the Gain Mechanism in PbS Colloidal Quantum Dot Visible-Near-Infrared Photodiodes. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 8327-8335.	2.1	3
704	Room-Temperature Interconversion Between Ultrathin CdTe Magic-Size Nanowires Induced by Ligand Shell Dynamics. <i>Journal of Physical Chemistry C</i> , 2022, 126, 15280-15297.	1.5	3
705	Electron-Transport Layers Employing Strongly Bound Ligands Enhance Stability in Colloidal Quantum Dot Infrared Photodetectors. <i>Advanced Materials</i> , 2022, 34, .	11.1	16
706	Thermal evaporation of lead-free inorganic perovskite CsGeI ₃ for photodetection. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	8
707	Hybrid Germanium Bromide Perovskites with Tunable Second Harmonic Generation. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	7.2	26

#	ARTICLE	IF	CITATIONS
708	Electron-donating amine-interlayer induced n-type doping of polymer:nonfullerene blends for efficient narrowband near-infrared photo-detection. <i>Nature Communications</i> , 2022, 13, .	5.8	20
709	Low-Dimensional Organic Crystals: From Precise Synthesis to Advanced Applications. <i>Small</i> , 2022, 18, .	5.2	4
710	Ultraflexible and Ultrasensitive Near-Infrared Organic Phototransistors for Hemispherical Biomimetic Eyes. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	14
711	Solution Processed Photodetectors with PVK-WS ₂ Nanotube/Nanofullerene Organic-Inorganic Hybrid Films. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 43612-43620.	4.0	2
712	Solvent Engineering Approach Toward Optimized Phase and Morphology of CsPbBr ₃ Films for Efficient and Stable Planar Perovskite Solar Cells and Photodetectors. <i>Advanced Energy and Sustainability Research</i> , 2022, 3, .	2.8	5
713	Hybrid Germanium Bromide Perovskites with Tunable Second Harmonic Generation. <i>Angewandte Chemie</i> , 2022, 134, .	1.6	3
714	Lead-Free Copper-Based Perovskite Nanonets for Deep Ultraviolet Photodetectors with High Stability and Better Performance. <i>Nanomaterials</i> , 2022, 12, 3264.	1.9	3
715	Low-voltage-modulated perovskite/organic dual-band photodetectors for visible and near-infrared imaging. <i>Science Bulletin</i> , 2022, 67, 1982-1990.	4.3	9
716	Solution-Processed Inorganic Thermoelectric Materials: Opportunities and Challenges. <i>Chemistry of Materials</i> , 2022, 34, 8471-8489.	3.2	12
717	[PPh ₃] ₂ [SbCl ₅]: A Zero-Dimensional Hybrid Metal Halide with a Supramolecular Framework and Stable Dual-Band Emission. <i>Journal of Physical Chemistry C</i> , 2022, 126, 17381-17389.	1.5	11
718	Crystallized 2D perovskite for x-ray and visible light detection applications. , 2022, , .		0
719	Solution-phase controlled synthesis of Cu ₃ NbSe ₄ nanocrystals for optoelectronic applications. <i>Dalton Transactions</i> , 2022, 51, 16937-16944.	1.6	1
720	Microfluidic Synthesis, Doping Strategy, and Optoelectronic Applications of Nanostructured Halide Perovskite Materials. <i>Micromachines</i> , 2022, 13, 1647.	1.4	1
721	Acid-Base Reaction-Assisted Quantum Dot Patterning via Ligand Engineering and Photolithography. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 47831-47840.	4.0	4
722	Multication Tin-Lead Perovskite Photodiodes with Engineered Lattice Strain for Ultrasensitive Broadband Photodetection. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	4
723	Spray-coated perovskite hemispherical photodetector featuring narrow-band and wide-angle imaging. <i>Nature Communications</i> , 2022, 13, .	5.8	31
724	Two-dimensional devices and integration towards the silicon lines. <i>Nature Materials</i> , 2022, 21, 1225-1239.	13.3	79
725	Special roles of two-dimensional octahedral frameworks in photodynamics of Cs ₃ Bi ₂ Br ₉ nanoplatelets: Electron and lattice-wave localization. <i>Applied Physics Letters</i> , 2022, 121, .	1.5	3

#	ARTICLE	IF	CITATIONS
726	High-Performance Directly Patterned Nanograting Perovskite Photodetector with Interdigitated Electrodes. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	6
727	High-Performance Organic Photodetectors Using SnO ₂ as Interfacial Layer with Optimal Thickness. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 0, .	0.8	0
728	Passivating {100} Facets of PbS Colloidal Quantum Dots via Perovskite Bridges for Sensitive and Stable Infrared Photodiodes. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	15
729	All-Polymer Photodetectors with n-Type Polymers Having Nonconjugated Spacers for Dark Current Density Reduction. <i>Macromolecules</i> , 2022, 55, 9489-9501.	2.2	5
730	Analysis of Carrier Transport in Quantum Dot/Metal-Oxide Phototransistors via Light-Mediated Interfacial Modeling. <i>Advanced Optical Materials</i> , 2023, 11, .	3.6	3
731	Dark current modeling of thick perovskite X-ray detectors. <i>Frontiers of Optoelectronics</i> , 2022, 15, .	1.9	3
732	Plasmonic Near-Infrared Photoconductor Based on Hot Hole Collection in the Metal-Semiconductor-Metal Junction. <i>Molecules</i> , 2022, 27, 6922.	1.7	3
733	Negative Photoconductivity: Bizarre Physics in Semiconductors. , 2022, 4, 2298-2320.		19
734	Photochromic Semiconductors: Bottom-Up Strategy to Construct Type II-Stacking Viologen I ⁻ -Aggregates. <i>Inorganic Chemistry</i> , 2022, 61, 17196-17201.	1.9	7
735	Graphene/Quantum Dot Heterostructure Photodetectors: From Material to Performance. <i>Advanced Optical Materials</i> , 2022, 10, .	3.6	12
736	Lanthanide-doped luminescent perovskites: A review of synthesis, properties, and applications. <i>Journal of Luminescence</i> , 2022, 252, 119406.	1.5	13
737	Patterned Ga ₂ O ₃ nanowires synthesized by CVD method for High-performance self-powered ultraviolet photodetector. <i>Journal of Alloys and Compounds</i> , 2023, 934, 168070.	2.8	8
738	Perovskite Solar Cell-Gated Organic Electrochemical Transistors for Flexible Photodetectors with Ultrahigh Sensitivity and Fast Response. <i>Advanced Materials</i> , 2023, 35, .	11.1	16
739	Theoretical and Experimental Investigation of Barrier-Energy-Dependent Charge Injection Mechanisms in Organic Photodetectors. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	8
740	Bandlike Transport in FaPbBr ₃ Quantum Dot Phototransistor with High Hole Mobility and Ultrahigh Photodetectivity. <i>Nano Letters</i> , 2022, 22, 9020-9026.	4.5	8
741	Photodetectors Based on Emerging Materials. <i>Springer Handbooks</i> , 2023, , 777-805.	0.3	0
742	Contribution of Sub-Gap States to Broadband Infrared Response in Organic Bulk Heterojunctions. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 53111-53119.	4.0	3
743	Organic and quantum dot hybrid photodetectors: towards full-band and fast detection. <i>Chemical Communications</i> , 2023, 59, 260-269.	2.2	7

#	ARTICLE	IF	CITATIONS
744	Cocrystal engineering: towards high-performance near-infrared organic phototransistors based on donor-acceptor charge transfer cocrystals. <i>Science China Chemistry</i> , 2023, 66, 266-272.	4.2	9
745	Emerging Chalcohalide Materials for Energy Applications. <i>Chemical Reviews</i> , 2023, 123, 327-378.	23.0	34
746	Light-Induced Trap Reduction in Organic Shortwave Infrared Photodetectors. <i>ACS Photonics</i> , 2022, 9, 4030-4037.	3.2	1
747	Heterogeneous system synthesis of high quality PbS quantum dots for efficient infrared solar cells. <i>Nano Research</i> , 2023, 16, 5750-5755.	5.8	1
748	Filterless Visible-Range Color Sensing and Wavelength-Selective Photodetection Based on Barium/Nickel Codoped Bandgap-Engineered Potassium Sodium Niobate Ferroelectric Ceramics. <i>Solar Rrl</i> , 2023, 7, .	3.1	1
749	Highly Sensitive Broadband Phototransistors Based on Gradient Tin/Lead Mixed Perovskites. <i>Small</i> , 2023, 19, .	5.2	3
750	Enabling Fast Photoresponse in Near-Infrared Organic Phototransistors by Manipulating Minority Charge Trapping and Recombination. <i>Advanced Optical Materials</i> , 0, , 2202008.	3.6	3
751	A Flexible, High-Voltage (>100V) Generating Device Based on Zebra-Like Asymmetrical Photovoltaic Cascade. <i>Advanced Materials</i> , 2023, 35, .	11.1	1
752	Synergy of Block Copolymers and Perovskites: Template Growth through Self-Assembly. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 11610-11621.	2.1	6
753	Optimizing the Infrared Photoelectric Detection Performance of Pbs Quantum Dots through Solid-State Ligand Exchange. <i>Materials</i> , 2022, 15, 9058.	1.3	3
754	Recent Progress on Organic Near-Infrared Photodetectors: Mechanism, Devices, and Applications. <i>Chinese Journal of Chemistry</i> , 2023, 41, 958-978.	2.6	11
755	Filter-Free Narrowband Photomultiplication-Type Planar Heterojunction Organic Photodetectors. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	31
756	Twisting of Porphyrin by Assembly in a Metal-Organic Framework yielding Chiral Photoconducting Films for Circularly Polarized Light Detection. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	6
757	Recent Advances in Smart Organic Sensors for Environmental Monitoring Systems. <i>ACS Applied Electronic Materials</i> , 2023, 5, 77-99.	2.0	5
758	Effect of Cyano Substitution on Non-Fullerene Acceptor for Near-Infrared Organic Photodetectors above 1000nm. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	9
759	Flexible Miniaturized Multispectral Detector Derived from Blade-Coated Organic Narrowband Response Unit Array. <i>ACS Nano</i> , 2022, 16, 21036-21046.	7.3	5
760	Realizing High-Detectivity Near-Infrared Photodetectors in Tin-Lead Perovskites by Double-Sided Surface-Preferred Distribution of Multifunctional Tin Thiocyanate Additive. <i>ACS Energy Letters</i> , 2023, 8, 577-589.	8.8	11
761	Simple Visualization of Universal Ferroelastic Domain Walls in Lead Halide Perovskites. <i>Advanced Materials</i> , 2023, 35, .	11.1	4

#	ARTICLE	IF	CITATIONS
762	Twisting of Porphyrin by Assembly in a Metal-Organic Framework yielding Chiral Photoconducting Films for Circularly Polarized Light Detection. <i>Angewandte Chemie</i> , 0, , .	1.6	1
763	Highly Sensitive Tin-Lead Perovskite Photodetectors with Over 450 Days Stability Enabled by Synergistic Engineering for Pulse Oximetry System. <i>Advanced Materials</i> , 2023, 35, .	11.1	22
764	Infrared Light Detection Technology Based on Organics. <i>ACS Applied Electronic Materials</i> , 2023, 5, 21-33.	2.0	5
765	Flexible Electronics Based on Organic Semiconductors: from Patterned Assembly to Integrated Applications. <i>Small</i> , 2023, 19, .	5.2	7
766	Gradient Bandgap-Tunable Perovskite Microwire Arrays toward Flexible Color-Cognitive Devices. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	12
767	Ultrasensitive solar-blind ultraviolet detection and optoelectronic neuromorphic computing using In_2Se_3 phototransistors. <i>Frontiers of Physics</i> , 2023, 18, .	2.4	4
768	Linear optical afterglow and nonlinear optical harmonic generation from chiral tin(IV) halides: the role of lattice distortions. <i>Materials Horizons</i> , 2023, 10, 1005-1011.	6.4	9
769	Multimodal photodetectors with vacuum deposited perovskite bilayers. <i>Journal of Materials Chemistry C</i> , 2023, 11, 1258-1264.	2.7	2
770	Photodetector performance limitations: Recombination or trapping? Power exponent variation with the applied bias to rescue. <i>Journal of Materials Research</i> , 2023, 38, 1813-1823.	1.2	3
771	A near-infrared organic photodetector based on an aza-BODIPY dye for a laser microphone system. <i>Journal of Materials Chemistry C</i> , 2023, 11, 2267-2272.	2.7	2
772	Ion Migration Induced Unusual Charge Transport in Tin Halide Perovskites. <i>ACS Energy Letters</i> , 2023, 8, 957-962.	8.8	12
773	Exciton dispersion and exciton-phonon interaction in solids by time-dependent density functional theory. <i>Journal of Chemical Physics</i> , 2023, 158, .	1.2	0
774	Advances in Polymethine Dyes for Near-Infrared Organic Photodiodes. <i>Chinese Journal of Chemistry</i> , 2023, 41, 1399-1416.	2.6	2
775	Vertical Architecture Solution-Processed Quantum Dot Photodetectors with Amorphous Selenium Hole Transport Layer. <i>ACS Photonics</i> , 2023, 10, 134-146.	3.2	1
776	Organic Photodiodes with Thermally Reliable Dark Current and Excellent Detectivity Enabled by Low Donor Concentration. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 7175-7183.	4.0	5
777	Tutorial: Lead sulfide colloidal quantum dot infrared photodetector. <i>Journal of Applied Physics</i> , 2023, 133, .	1.1	4
778	Metal Halide Perovskite Nanowires: Controllable Synthesis, Mechanism, and Application in Optoelectronic Devices. <i>Nanomaterials</i> , 2023, 13, 419.	1.9	5
779	Improving anion-exchange efficiency and spectrum stability of perovskite quantum dots via an Al^{3+} bonding-doping synergistic effect. <i>Nanoscale</i> , 2023, 15, 5696-5704.	2.8	4

#	ARTICLE	IF	CITATIONS
780	Recent Progress of Narrowband Perovskite Photodetectors: Fundamental Physics and Strategies. <i>Advanced Devices & Instrumentation</i> , 2023, 4, .	4.0	9
781	A Tunable Polarization Field for Enhanced Performance of Flexible BaTiO ₃ @TiO ₂ Nanofiber Photodetector by Suppressing Dark Current to pA Level. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	36
782	Embedded Integration of Sb ₂ Se ₃ Film by Low-Temperature Plasma-Assisted Chemical Vapor Reaction with Polycrystalline Si Transistor for High-Performance Flexible Visible-to-Near-Infrared Photodetector. <i>ACS Nano</i> , 2023, 17, 2019-2028.	7.3	7
783	Solution-Processed Photodetectors. , 2023, , 427-452.		1
784	High-yield growth of FACsPbBr ₃ single crystals with low defect density from mixed solvents for gamma-ray spectroscopy. <i>Nature Photonics</i> , 2023, 17, 315-323.	15.6	26
785	Anisotropic Heavy-Metal-Free Semiconductor Nanocrystals: Synthesis, Properties, and Applications. <i>Chemical Reviews</i> , 2023, 123, 3625-3692.	23.0	9
786	2D Ruddlesden-Popper Sn-Based Perovskite Weak Light Detector for Image Transmission and Reflection Imaging. <i>Small Methods</i> , 2024, 8, .	4.6	5
787	Blended Conjugated Host and Unconjugated Dopant Polymers Towards n-type All-Polymer Conductors and High- ZT Thermoelectrics. <i>Angewandte Chemie - International Edition</i> , 2023, 62, .	7.2	4
788	Large-Scale Synthesis of Vertically Standing In ₂ S ₃ Nanosheets/Pyramidal Silicon Array Heterojunction for Broadband Photodetectors. <i>Applied Surface Science</i> , 2023, 621, 156901.	3.1	1
789	Catalyst-Free $\text{In}^{2+}\text{-Ga}_2\text{O}_3\text{@Ga}_2\text{O}_3$ Core-Shell nanorod arrays grown on Si substrate for High-performance self-powered solar-blind photoelectrochemical photodetection. <i>Applied Surface Science</i> , 2023, 624, 157149.	3.1	4
790	Retina-inspired narrowband perovskite sensor array for panchromatic imaging. <i>Science Advances</i> , 2023, 9, .	4.7	3
791	Bioelectronic devices for light-based diagnostics and therapies. <i>Biophysics Reviews</i> , 2023, 4, .	1.0	2
792	Enhanced gain and detectivity of unipolar barrier solar blind avalanche photodetector via lattice and band engineering. <i>Nature Communications</i> , 2023, 14, .	5.8	70
793	High responsivity of VIS-NIR photodetector based on Ag ₂ S/P3HT heterojunction. <i>Nanotechnology</i> , 2023, 34, 185205.	1.3	1
794	Review on metal halide perovskite-based optoelectronic synapses. <i>Photonics Research</i> , 2023, 11, 787.	3.4	7
795	Hybrid mixed-dimensional WTe ₂ /CsPbI ₃ perovskite heterojunction for high-performance photodetectors. <i>Nanotechnology</i> , 2023, 34, 195201.	1.3	7
796	Fabrication of High-Responsivity Sb ₂ Se ₃ -Based Photodetectors through Selenization Process. <i>Advanced Optical Materials</i> , 2023, 11, .	3.6	9
797	Switchable Ultra-Wideband All-Optical Quantum Dot Reflective Semiconductor Optical Amplifier. <i>Nanomaterials</i> , 2023, 13, 685.	1.9	0

#	ARTICLE	IF	CITATIONS
798	Perovskite-based color camera inspired by human visual cells. <i>Light: Science and Applications</i> , 2023, 12, .	7.7	23
799	Dy ³⁺ Doped All-Inorganic Perovskite Nanocrystals Glass toward High-Performance and High-Stability Silicon Photodetectors. <i>Laser and Photonics Reviews</i> , 2023, 17, .	4.4	1
800	Wearable Electronics Based on Stretchable Organic Semiconductors. <i>Small</i> , 2023, 19, .	5.2	24
802	Resonant Coherent Acoustic Oscillation in Nanoscale Ruddlesden-Popper Perovskite Films. <i>Advanced Functional Materials</i> , 0, , 2214542.	7.8	1
803	Metrology of thin-film photodetectors. , 2023, , 1-36.		0
804	Solution-grown ternary quasi-cube AgSbTe ₂ and its optoelectronic performance for broadband photodetection. <i>CrystEngComm</i> , 2023, 25, 2237-2242.	1.3	0
805	Ultrafast One-Step Deposition Route to Fabricate Single-Crystal CsPbX ₃ (X = Cl, Cl/Br, Br.) Tj ETQq0 0 0 rgBT /Oyerlock 10 4.0	4.0	4
806	High-Performance Phototransistor Memory with an Ultrahigh Memory Ratio Conferred Using Hydrogen-Bonded Supramolecular Electrets. <i>ACS Applied Materials & Interfaces</i> , 2023, 15, 19258-19269.	4.0	3
807	Can two-dimensional graphdiyne-based materials be novel materials for perovskite solar cell applications?. <i>Materials Futures</i> , 2023, 2, 027501.	3.1	2
808	Near Infrared Self-Powered Organic Photodetectors with a Record Responsivity Enabled by Low Trap Density. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	17
809	Multifunctional Organic-Inorganic Hybrid Perovskite Microcrystalline Engineering and Electromagnetic Response Switching Multi-Band Devices. <i>Advanced Materials</i> , 2023, 35, .	11.1	70
810	Mid-gap trap state-mediated dark current in organic photodiodes. <i>Nature Photonics</i> , 2023, 17, 368-374.	15.6	32
811	Te _x Se _{1-x} Photodiode Shortwave Infrared Detection and Imaging. <i>Advanced Materials</i> , 2023, 35, .	11.1	4
812	Large-Area Black Phosphorus/PtSe ₂ Schottky Junction for High Operating Temperature Broadband Photodetectors. <i>Small</i> , 2023, 19, .	5.2	6
813	High-Performing Quasi-2D Perovskite Photodetectors with Efficient Charge Transport Network Built from Vertically Orientated and Evenly Distributed 3D-Like Phases. <i>Advanced Functional Materials</i> , 2023, 33, .	7.8	4
814	A Review of Skin-Wearable Sensors for Non-Invasive Health Monitoring Applications. <i>Sensors</i> , 2023, 23, 3673.	2.1	7
815	Perovskite nanocrystal superlattices: self-assembly, collective behavior, and applications. <i>Chemical Communications</i> , 2023, 59, 5365-5374.	2.2	1
816	Aerosol-Jet Printed Sensors for Environmental, Safety, and Health Monitoring: A Review. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	8

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817	Blended Conjugated Host and Unconjugated Dopant Polymers Towards N-type All-Polymer Conductors and High-ZT Thermoelectrics. <i>Angewandte Chemie</i> , 0, , .	1.6	0
818	Understanding the Origin of Light Intensity and Temperature Dependence of Photodetection Properties in a MAPbBr ₃ Single-Crystal-Based Photoconductor. <i>ACS Photonics</i> , 2023, 10, 1424-1433.	3.2	10
819	A Flexible Sensitive Visible-NIR Organic Photodetector with High Durability. <i>Advanced Materials Technologies</i> , 2023, 8, .	3.0	5
820	Fully Transparent Ultraviolet Photodetector with Ultrahigh Responsivity Enhanced by MXene-Induced Photogating Effect. <i>Advanced Optical Materials</i> , 2023, 11, .	3.6	4
821	Sensitive photodetection below silicon bandgap using quinoid-capped organic semiconductors. <i>Science Advances</i> , 2023, 9, .	4.7	16
822	WS ₂ /WO ₃ Heterostructure-Based Photodetectors on SiO ₂ /Si for Future Optoelectronics. <i>ACS Applied Electronic Materials</i> , 2023, 5, 2538-2547.	2.0	3
823	Near-Unity Broadband Quantum Efficiency Enabled by Colloidal Quantum Dot/Mixed-Organic Heterojunction. <i>ACS Energy Letters</i> , 2023, 8, 2331-2337.	8.8	5
824	Ultraviolet-Visible-Short-Wavelength Infrared Broadband and Fast-Response Photodetectors Enabled by Individual Monocrystalline Perovskite Nanoplate. <i>Small</i> , 2023, 19, .	5.2	8
826	Control of the resistive switching voltage and reduction of the high-resistive-state current of zinc oxide by self-assembled monolayers. <i>Chemical Communications</i> , 2023, 59, 5761-5764.	2.2	2
860	ZnO based Back- and Front-Illuminated Photoresistor for UV Sensing Applications. , 2023, , .		0
862	Review on flexible perovskite photodetector: processing and applications. <i>Frontiers of Mechanical Engineering</i> , 2023, 18, .	2.5	4
874	Low-dimensional wide-bandgap semiconductors for UV photodetectors. <i>Nature Reviews Materials</i> , 2023, 8, 587-603.	23.3	124
875	PEDOT:PSS materials for optoelectronics, thermoelectrics, and flexible and stretchable electronics. <i>Journal of Materials Chemistry A</i> , 2023, 11, 18561-18591.	5.2	7
880	Supramolecular interface decoration on a polymer conductor for an intrinsically stretchable near-infrared photodiode. <i>Chemical Communications</i> , 2023, 59, 11975-11978.	2.2	0
980	Nano-Reinforced Polymers and Polymer Nanocomposites. <i>Advanced Structured Materials</i> , 2024, , 267-287.	0.3	0