

Jian-Bin Xu

List of Publications by Citations

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140
papers

8,094
citations

46
h-index

87
g-index

150
ext. papers

9,548
ext. citations

11.2
avg, IF

6.24
L-index

#	Paper	IF	Citations
140	High-responsivity graphene/silicon-heterostructure waveguide photodetectors. <i>Nature Photonics</i> , 2013 , 7, 888-891	33.9	584
139	Hybrid halide perovskite solar cell precursors: colloidal chemistry and coordination engineering behind device processing for high efficiency. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4460-8	16.4	481
138	Graphene and related two-dimensional materials: Structure-property relationships for electronics and optoelectronics. <i>Applied Physics Reviews</i> , 2017 , 4, 021306	17.3	368
137	Near-Infrared Photodetector Based on MoS ₂ /Black Phosphorus Heterojunction. <i>ACS Photonics</i> , 2016 , 3, 692-699	6.3	330
136	Flexible Piezoelectric-Induced Pressure Sensors for Static Measurements Based on Nanowires/Graphene Heterostructures. <i>ACS Nano</i> , 2017 , 11, 4507-4513	16.7	315
135	Two-dimensional quasi-freestanding molecular crystals for high-performance organic field-effect transistors. <i>Nature Communications</i> , 2014 , 5, 5162	17.4	270
134	Room temperature high-detectivity mid-infrared photodetectors based on black arsenic phosphorus. <i>Science Advances</i> , 2017 , 3, e1700589	14.3	269
133	Electronic Properties of MoS ₂ -WS ₂ Heterostructures Synthesized with Two-Step Lateral Epitaxial Strategy. <i>ACS Nano</i> , 2015 , 9, 9868-76	16.7	225
132	High-performance graphene-based hole conductor-free perovskite solar cells: Schottky junction enhanced hole extraction and electron blocking. <i>Small</i> , 2015 , 11, 2269-74	11	206
131	Highly Sensitive Glucose Biosensors Based on Organic Electrochemical Transistors Using Platinum Gate Electrodes Modified with Enzyme and Nanomaterials. <i>Advanced Functional Materials</i> , 2011 , 21, 2264-2272	15.6	203
130	Analyzing the Carrier Mobility in Transition-Metal Dichalcogenide MoS ₂ Field-Effect Transistors. <i>Advanced Functional Materials</i> , 2017 , 27, 1604093	15.6	178
129	Lateral Built-In Potential of Monolayer MoS ₂ -WS ₂ In-Plane Heterostructures by a Shortcut Growth Strategy. <i>Advanced Materials</i> , 2015 , 27, 6431-7	24	155
128	Synergistic Effects of Plasmonics and Electron Trapping in Graphene Short-Wave Infrared Photodetectors with Ultrahigh Responsivity. <i>ACS Nano</i> , 2017 , 11, 430-437	16.7	153
127	Electron Mobility Exceeding 10 cm ² V ⁻¹ s ⁻¹ and Band-Like Charge Transport in Solution-Processed n-Channel Organic Thin-Film Transistors. <i>Advanced Materials</i> , 2016 , 28, 5276-83	24	149
126	A self-powered high-performance graphene/silicon ultraviolet photodetector with ultra-shallow junction: breaking the limit of silicon?. <i>Npj 2D Materials and Applications</i> , 2017 , 1,	8.8	144
125	The role of solution-processed high- κ gate dielectrics in electrical performance of oxide thin-film transistors. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 5389	7.1	119
124	Highly Confined and Tunable Hyperbolic Phonon Polaritons in Van Der Waals Semiconducting Transition Metal Oxides. <i>Advanced Materials</i> , 2018 , 30, e1705318	24	118

123	Facile and environmentally friendly solution-processed aluminum oxide dielectric for low-temperature, high-performance oxide thin-film transistors. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 5803-10	9.5	118
122	Ultrahigh mobility and efficient charge injection in monolayer organic thin-film transistors on boron nitride. <i>Science Advances</i> , 2017 , 3, e1701186	14.3	115
121	Recent Advances of Solution-Processed Metal Oxide Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 25878-25901	9.5	114
120	1TTransition Metal Telluride Atomic Layers for Plasmon-Free SERS at Femtomolar Levels. <i>Journal of the American Chemical Society</i> , 2018 , 140, 8696-8704	16.4	114
119	High Responsivity, Broadband, and Fast Graphene/Silicon Photodetector in Photoconductor Mode. <i>Advanced Optical Materials</i> , 2015 , 3, 1207-1214	8.1	111
118	Epitaxial Ultrathin Organic Crystals on Graphene for High-Efficiency Phototransistors. <i>Advanced Materials</i> , 2016 , 28, 5200-5	24	109
117	Centimeter-Scale CVD Growth of Highly Crystalline Single-Layer MoS Film with Spatial Homogeneity and the Visualization of Grain Boundaries. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 12073-12081	9.5	99
116	Nonstoichiometric acid-base reaction as reliable synthetic route to highly stable CHNHPbI perovskite film. <i>Nature Communications</i> , 2016 , 7, 13503	17.4	87
115	Precise, Self-Limited Epitaxy of Ultrathin Organic Semiconductors and Heterojunctions Tailored by van der Waals Interactions. <i>Nano Letters</i> , 2016 , 16, 3754-9	11.5	81
114	Fused-Ring Electron Acceptor ITIC-Th: A Novel Stabilizer for Halide Perovskite Precursor Solution. <i>Advanced Energy Materials</i> , 2018 , 8, 1703399	21.8	80
113	Highly Sensitive and Broadband Organic Photodetectors with Fast Speed Gain and Large Linear Dynamic Range at Low Forward Bias. <i>Small</i> , 2017 , 13, 1603260	11	79
112	Graphene controlled Brewster angle device for ultra broadband terahertz modulation. <i>Nature Communications</i> , 2018 , 9, 4909	17.4	79
111	Monolayer Field-Effect Transistors of Nonplanar Organic Semiconductors with Brickwork Arrangement. <i>Advanced Materials</i> , 2015 , 27, 3418-23	24	71
110	A Simple Method for Synthesis of High-Quality Millimeter-Scale 1TTransition-Metal Telluride and Near-Field Nanooptical Properties. <i>Advanced Materials</i> , 2017 , 29, 1700704	24	67
109	High-Performance Broadband Floating-Base Bipolar Phototransistor Based on WSe ₂ /BP/MoS ₂ Heterostructure. <i>ACS Photonics</i> , 2017 , 4, 823-829	6.3	66
108	Performance and Stability Improvement of P3HT:PCBM-Based Solar Cells by Thermally Evaporated Chromium Oxide (CrOx) Interfacial Layer. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 2699-2702	9.5	65
107	In-Plane Optical Absorption and Free Carrier Absorption in Graphene-on-Silicon Waveguides. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014 , 20, 43-48	3.8	64
106	Ag-Doped Halide Perovskite Nanocrystals for Tunable Band Structure and Efficient Charge Transport. <i>ACS Energy Letters</i> , 2019 , 4, 534-541	20.1	63

105	Effects of Alkyl Chain Length on Crystal Growth and Oxidation Process of Two-Dimensional Tin Halide Perovskites. <i>ACS Energy Letters</i> , 2020 , 5, 1422-1429	20.1	62
104	Hybrid graphene tunneling photoconductor with interface engineering towards fast photoresponse and high responsivity. <i>Npj 2D Materials and Applications</i> , 2017 , 1,	8.8	62
103	Ultrathin efficient perovskite solar cells employing a periodic structure of a composite hole conductor for elevated plasmonic light harvesting and hole collection. <i>Nanoscale</i> , 2016 , 8, 6290-9	7.7	61
102	Large-Grain Formamidinium PbI ₃ Br _x for High-Performance Perovskite Solar Cells via Intermediate Halide Exchange. <i>Advanced Energy Materials</i> , 2017 , 7, 1601882	21.8	61
101	Flexible dielectric papers based on biodegradable cellulose nanofibers and carbon nanotubes for dielectric energy storage. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 6037-6044	7.1	59
100	Crystallinity Preservation and Ion Migration Suppression through Dual Ion Exchange Strategy for Stable Mixed Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1700118	21.8	58
99	Epitaxial Stitching and Stacking Growth of Atomically Thin Transition-Metal Dichalcogenides (TMDCs) Heterojunctions. <i>Advanced Functional Materials</i> , 2017 , 27, 1603884	15.6	57
98	A Meaningful Analogue of Pentacene: Charge Transport, Polymorphs, and Electronic Structures of Dihydrodiazapentacene. <i>Chemistry of Materials</i> , 2009 , 21, 1400-1405	9.6	56
97	Aqueous Solution-Deposited Gallium Oxide Dielectric for Low-Temperature, Low-Operating-Voltage Indium Oxide Thin-Film Transistors: A Facile Route to Green Oxide Electronics. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14720-5	9.5	55
96	General Nondestructive Passivation by 4-Fluoroaniline for Perovskite Solar Cells with Improved Performance and Stability. <i>Small</i> , 2018 , 14, e1803350	11	52
95	Interlayer Interaction Enhancement in Ruddlesden-Popper Perovskite Solar Cells toward High Efficiency and Phase Stability. <i>ACS Energy Letters</i> , 2019 , 4, 1025-1033	20.1	50
94	Perovskite Bifunctional Device with Improved Electroluminescent and Photovoltaic Performance through Interfacial Energy-Band Engineering. <i>Advanced Materials</i> , 2019 , 31, e1902543	24	46
93	Observation of a giant two-dimensional band-piezoelectric effect on biaxial-strained graphene. <i>NPG Asia Materials</i> , 2015 , 7, e154-e154	10.3	46
92	Single crystal n-channel field effect transistors from solution-processed silylethynylated tetraazapentacene. <i>Journal of Materials Chemistry</i> , 2011 , 21, 15201		46
91	2D materials-based homogeneous transistor-memory architecture for neuromorphic hardware. <i>Science</i> , 2021 , 373, 1353-1358	33.3	46
90	Fibrous Epoxy Substrate with High Thermal Conductivity and Low Dielectric Property for Flexible Electronics. <i>Advanced Electronic Materials</i> , 2016 , 2, 1500485	6.4	45
89	Low-temperature facile solution-processed gate dielectric for combustion derived oxide thin film transistors. <i>RSC Advances</i> , 2014 , 4, 54729-54739	3.7	42
88	Guanidinium doping enabled low-temperature fabrication of high-efficiency all-inorganic CsPbI ₂ Br perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 27640-27647	13	41

87	Abnormal Synergetic Effect of Organic and Halide Ions on the Stability and Optoelectronic Properties of a Mixed Perovskite via In Situ Characterizations. <i>Advanced Materials</i> , 2018 , 30, e1801562	24	41
86	Controlled Electrochemical Deposition of Large-Area MoS ₂ on Graphene for High-Responsivity Photodetectors. <i>Advanced Functional Materials</i> , 2017 , 27, 1603998	15.6	39
85	Graphene photodetector integrated on silicon nitride waveguide. <i>Journal of Applied Physics</i> , 2015 , 117, 144504	2.5	39
84	The influence of gate dielectrics on a high-mobility n-type conjugated polymer in organic thin-film transistors. <i>Applied Physics Letters</i> , 2012 , 100, 033301	3.4	37
83	Strong optical response and light emission from a monolayer molecular crystal. <i>Nature Communications</i> , 2019 , 10, 5589	17.4	36
82	Graphene Based Terahertz Light Modulator in Total Internal Reflection Geometry. <i>Advanced Optical Materials</i> , 2017 , 5, 1600697	8.1	35
81	Nanoantenna-Sandwiched Graphene with Giant Spectral Tuning in the Visible-to-Near-Infrared Region. <i>Advanced Optical Materials</i> , 2014 , 2, 162-170	8.1	35
80	High-Quality Monolithic Graphene Films via Laterally Stitched Growth and Structural Repair of Isolated Flakes for Transparent Electronics. <i>Chemistry of Materials</i> , 2017 , 29, 7808-7815	9.6	35
79	Integration of inverse nanocone array based bismuth vanadate photoanodes and bandgap-tunable perovskite solar cells for efficient self-powered solar water splitting. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 19091-19097	13	33
78	Growth of Large-Scale, Large-Size, Few-Layered HfMoO ₄ on SiO ₂ and Its Photoresponse Mechanism. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 5543-5549	9.5	31
77	Ultra-Low Work Function Transparent Electrodes Achieved by Naturally Occurring Biomaterials for Organic Optoelectronic Devices. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1400215	4.6	30
76	Facile passivation of solution-processed InZnO thin-film transistors by octadecylphosphonic acid self-assembled monolayers at room temperature. <i>Applied Physics Letters</i> , 2014 , 104, 173504	3.4	29
75	Enhancing light-matter interaction in 2D materials by optical micro/nano architectures for high-performance optoelectronic devices. <i>Information Materials</i> , 2021 , 3, 36-60	23.1	29
74	An Interlayer with Strong Pb-Cl Bond Delivers Ultraviolet-Filter-Free, Efficient, and Photostable Perovskite Solar Cells. <i>iScience</i> , 2019 , 21, 217-227	6.1	28
73	Spectroscopic Study of Electron and Hole Polarons in a High-Mobility Donor-Acceptor Conjugated Copolymer. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 6835-6841	3.8	28
72	Controllable modulation of the electronic properties of graphene and silicene by interface engineering and pressure. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 4869	7.1	28
71	Graphene/In ₂ S ₃ van der Waals Heterostructure for Ultrasensitive Photodetection. <i>ACS Photonics</i> , 2018 , 5, 4912-4919	6.3	28
70	Ternary Bulk Heterojunction Photovoltaic Cells Composed of Small Molecule Donor Additive as Cascade Material. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 20094-20099	3.8	26

69	Thickness-Dependent Optical Properties and In-Plane Anisotropic Raman Response of the 2D In_2S_3 . <i>Advanced Optical Materials</i> , 2019 , 7, 1901085	8.1	25
68	van der Waals Transition-Metal Oxide for Vis-MIR Broadband Photodetection via Intercalation Strategy. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 15741-15747	9.5	24
67	Interlayer Cross-Linked 2D Perovskite Solar Cell with Uniform Phase Distribution and Increased Exciton Coupling. <i>Solar Rrl</i> , 2020 , 4, 1900578	7.1	24
66	Realization of vertical and lateral van der Waals heterojunctions using two-dimensional layered organic semiconductors. <i>Nano Research</i> , 2017 , 10, 1336-1344	10	23
65	Fully Biodegradable Water Droplet Energy Harvester Based on Leaves of Living Plants. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 56060-56067	9.5	23
64	High-speed infrared two-dimensional platinum diselenide photodetectors. <i>Applied Physics Letters</i> , 2020 , 116, 211101	3.4	23
63	Enhanced Performance of Polymeric Bulk Heterojunction Solar Cells via Molecular Doping with TFSA. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 13415-21	9.5	23
62	Carbon Dot-Based Composite Films for Simultaneously Harvesting Raindrop Energy and Boosting Solar Energy Conversion Efficiency in Hybrid Cells. <i>ACS Nano</i> , 2020 , 14, 10359-10369	16.7	23
61	Near-Infrared Photoresponse of One-Sided Abrupt $\text{MAPbI}_3/\text{TiO}_2$ Heterojunction through a Tunneling Process. <i>Advanced Functional Materials</i> , 2016 , 26, 8545-8554	15.6	21
60	Deterministic and Etching-Free Transfer of Large-Scale 2D Layered Materials for Constructing Interlayer Coupled van der Waals Heterostructures. <i>Advanced Materials Technologies</i> , 2018 , 3, 1700282	6.8	20
59	Ternary blend bulk heterojunction photovoltaic cells with an ambipolar small molecule as the cascade material. <i>RSC Advances</i> , 2014 , 4, 1087-1092	3.7	20
58	Efficient Slantwise Aligned Dion-Jacobson Phase Perovskite Solar Cells Based on Trans-1,4-Cyclohexanediamine. <i>Small</i> , 2020 , 16, e2003098	11	20
57	Vacuum electron emission with low turn-on electric field from hydrogenated amorphous carbon thin films. <i>Applied Physics Letters</i> , 2001 , 79, 141-143	3.4	19
56	Quantitative Analysis of Scattering Mechanisms in Highly Crystalline CVD MoS_2 through a Self-Limited Growth Strategy by Interface Engineering. <i>Small</i> , 2016 , 12, 438-45	11	19
55	Hybrid 2D-Material Photonics with Bound States in the Continuum. <i>Advanced Optical Materials</i> , 2019 , 7, 1901306	8.1	18
54	Induced crystallization of rubrene with diazapentacene as the template. <i>Journal of Materials Chemistry</i> , 2012 , 22, 4396		18
53	Facet-Dependent Property of Sequentially Deposited Perovskite Thin Films: Chemical Origin and Self-Annihilation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 32366-32375	9.5	17
52	Broadside Nanoantennas Made of Single Silver Nanorods. <i>ACS Nano</i> , 2018 , 12, 1720-1731	16.7	15

51	Derivatization of pristine graphene for bulk heterojunction polymeric photovoltaic devices. <i>Journal of Materials Chemistry</i> , 2012 , 22, 16723		15
50	Self-Assembled Monolayers of Phosphonic Acids with Enhanced Surface Energy for High-Performance Solution-Processed N-Channel Organic Thin-Film Transistors. <i>Angewandte Chemie</i> , 2013 , 125, 6342-6347	3.6	15
49	Electrical switching behavior from ultrathin potential barrier of self-assembly molecules tuned by interfacial charge trapping. <i>Applied Physics Letters</i> , 2010 , 96, 133303	3.4	15
48	Understanding Charge Transport in All-Inorganic Halide Perovskite Nanocrystal Thin-Film Field Effect Transistors. <i>ACS Energy Letters</i> , 2020 , 5, 2614-2623	20.1	15
47	Variable electronic properties of lateral phosphorene-graphene heterostructures. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 31685-92	3.6	14
46	Efficient Electronic Transport in Partially Disordered Co ₃ O ₄ Nanosheets for Electrocatalytic Oxygen Evolution Reaction. <i>ACS Applied Energy Materials</i> , 2020 , 3, 3071-3081	6.1	14
45	An Acoustic Meta-Skin Insulator. <i>Advanced Materials</i> , 2020 , 32, e2002251	24	14
44	In Situ Ultrafast and Patterned Growth of Transition Metal Dichalcogenides from Inkjet-Printed Aqueous Precursors. <i>Advanced Materials</i> , 2021 , 33, e2100260	24	14
43	Bound-States-in-Continuum Hybrid Integration of 2D Platinum Diselenide on Silicon Nitride for High-Speed Photodetectors. <i>ACS Photonics</i> , 2020 , 7, 2643-2649	6.3	13
42	Low-voltage flexible pentacene thin film transistors with a solution-processed dielectric and modified copper source/drain electrodes. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 2585	7.1	12
41	Direct Observation of Charge Injection of Graphene in the Graphene/WSe Heterostructure by Optical-Pump Terahertz-Probe Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 47501-47506	9.5	11
40	Size Modulation and Heterovalent Doping Facilitated Hybrid Organic and Perovskite Quantum Dot Bulk Heterojunction Solar Cells. <i>ACS Applied Energy Materials</i> , 2020 , 3, 11359-11367	6.1	10
39	Control over Light Soaking Effect in All-Inorganic Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021 , 31, 2101287	15.6	10
38	Cascade Type-II 2D/3D Perovskite Heterojunctions for Enhanced Stability and Photovoltaic Efficiency. <i>Solar Rrl</i> , 2020 , 4, 2000282	7.1	9
37	Pushing the Efficiency of High Open-Circuit Voltage Binary Organic Solar Cells by Vertical Morphology Tuning. <i>Advanced Science</i> , 2022 , e2200578	13.6	9
36	Size and crystallinity control of dispersed VO ₂ particles for modulation of metal/insulator transition temperature and hysteresis. <i>CrystEngComm</i> , 2019 , 21, 5749-5756	3.3	8
35	Unusual electronic and magnetic properties of lateral phosphorene/WSe ₂ heterostructures. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 6657-6665	7.1	8
34	Configuration-dependent electronic and magnetic properties of graphene monolayers and nanoribbons functionalized with aryl groups. <i>Journal of Chemical Physics</i> , 2014 , 140, 044712	3.9	8

33	A centrifugal microfluidic pressure regulator scheme for continuous concentration control in droplet-based microreactors. <i>Lab on A Chip</i> , 2019 , 19, 3870-3879	7.2	8
32	Tertiary Amines Differentiated from Primary and Secondary Amines by Active Ester-Functionalized Hexabenzoperylene in Field Effect Transistors. <i>Chemistry - an Asian Journal</i> , 2019 , 14, 1676-1680	4.5	8
31	Uncovering the Electron-Phonon Interplay and Dynamical Energy-Dissipation Mechanisms of Hot Carriers in Hybrid Lead Halide Perovskites. <i>Advanced Energy Materials</i> , 2021 , 11, 2003071	21.8	8
30	Influence of Annealing on Raman Spectrum of Graphene in Different Gaseous Environments. <i>Spectroscopy Letters</i> , 2014 , 47, 465-470	1.1	7
29	A novel solid-to-solid electrocatalysis of graphene oxide reduction on copper electrode. <i>RSC Advances</i> , 2015 , 5, 87987-87992	3.7	6
28	Bifunctional Effects of Trichloro(octyl)silane Modification on the Performance and Stability of a Perovskite Solar Cell via Microscopic Characterization Techniques. <i>ACS Applied Energy Materials</i> , 2020 , 3, 3302-3309	6.1	6
27	Enhanced Photoresponse in Interfacial Gated Graphene Phototransistor With Ultrathin Al ₂ O ₃ Dielectric. <i>IEEE Electron Device Letters</i> , 2018 , 39, 987-990	4.4	6
26	Rapid growth of high quality perovskite crystal by solvent mixing. <i>CrystEngComm</i> , 2016 , 18, 1184-1189	3.3	5
25	Stable field emission with low threshold field from amorphous carbon films due to layer-by-layer hydrogen plasma annealing. <i>Journal of Applied Physics</i> , 2002 , 91, 5434-5437	2.5	5
24	The compatibility of methylammonium and formamidinium in mixed cation perovskite: the optoelectronic and stability properties. <i>Nanotechnology</i> , 2021 , 32, 075406	3.4	5
23	Enhanced Electrochemical Stability by Alkyldiammonium in Dion-Jacobson Perovskite toward Ultrastable Light-Emitting Diodes. <i>Advanced Optical Materials</i> , 2021 , 9, 2100243	8.1	5
22	Ultra-Narrowband Photodetector with High Responsivity Enabled by Integrating Monolayer J-Aggregate Organic Crystal with Graphene. <i>Advanced Optical Materials</i> , 2021 , 9, 2100158	8.1	5
21	Synthesis and Characterization of Metallic Janus MoSH Monolayer. <i>ACS Nano</i> , 2021 ,	16.7	5
20	Improving the Quality of the Si/Cu ₂ O Interface by Methyl-Group Passivation and Its Application in Photovoltaic Devices. <i>Advanced Materials Interfaces</i> , 2017 , 4, 1600833	4.6	4
19	Observation of Strong π -Aggregate Light Emission in Monolayer Molecular Crystal on Hexagonal Boron Nitride. <i>Journal of Physical Chemistry A</i> , 2020 , 124, 7340-7345	2.8	4
18	Growth dynamics and photoresponse of the Wadsley phase V ₆ O ₁₃ crystals. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 6470-6477	7.1	4
17	Thermal and illumination effects on a PbI ₂ nanoplate and its transformation to CH ₃ NH ₃ PbI ₃ perovskite. <i>CrystEngComm</i> , 2019 , 21, 736-740	3.3	3
16	Induced Crystallization of Rubrene in Thin-Film Transistors (Adv. Mater. 30/2010). <i>Advanced Materials</i> , 2010 , 22, n/a-n/a	24	3

15	Towards Scalable Fabrications and Applications of 2D Layered Material-based Vertical and Lateral Heterostructures. <i>Chemical Research in Chinese Universities</i> , 2020 , 36, 525-550	2.2	3
14	Perovskite Solar Cells: Large-Grain Formamidinium PbI ₃ Br _x for High-Performance Perovskite Solar Cells via Intermediate Halide Exchange (Adv. Energy Mater. 12/2017). <i>Advanced Energy Materials</i> , 2017 , 7,	21.8	2
13	Study of the electron standing wave states in scanning tunneling spectroscopy of Si(111) surface. <i>Surface and Interface Analysis</i> , 2013 , 45, 962-967	1.5	2
12	Synthesis of Multishell Carbon Nanotube Composites via Template Method. <i>Chinese Journal of Chemical Physics</i> , 2011 , 24, 206-210	0.9	2
11	Controlled Synthesis of MoWTe Atomic Layers with Emergent Quantum States. <i>ACS Nano</i> , 2021 ,	16.7	2
10	Defect Etching of Phase-Transition-Assisted CVD-Grown 2H-MoTe. <i>Small</i> , 2021 , 17, e2102146	11	2
9	Suppressed Phase Segregation in High-Humidity-Processed Dion-Jacobson Perovskite Solar Cells Toward High Efficiency and Stability. <i>Solar Rrl</i> , 2021 , 5, 2100555	7.1	2
8	Phonon Polaritons: Highly Confined and Tunable Hyperbolic Phonon Polaritons in Van Der Waals Semiconducting Transition Metal Oxides (Adv. Mater. 13/2018). <i>Advanced Materials</i> , 2018 , 30, 1870091	24	1
7	Investigation on the Fano-Type Asymmetry in Atomic Semiconductor Coupled to the Plasmonic Lattice. <i>ACS Photonics</i> ,	6.3	1
6	Experimental Observation of Ultrahigh Mobility Anisotropy of Organic Semiconductors in the Two-Dimensional Limit. <i>ACS Applied Electronic Materials</i> , 2020 , 2, 2888-2894	4	1
5	Properties and Devices of Single One-Dimensional Nanostructure: Application of Scanning Probe Microscopy 2013 , 339-358		
4	P-N Junction Formation in Electron-beam Irradiated Graphene Step. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1407, 224		
3	Stability Improvement of Polymer Based Solar Cells by Thermally Evaporated Cr ₂ O ₃ Interfacial Layer. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1312, 1		
2	VERY LOW THRESHOLD ELECTRON FIELD EMISSION FROM AMORPHOUS CARBON FILMS WITH HYDROGEN DILUTION. <i>International Journal of Modern Physics B</i> , 2002 , 16, 988-992	1.1	
1	Lead Halide Perovskites: Uncovering the Electron-Phonon Interplay and Dynamical Energy-Dissipation Mechanisms of Hot Carriers in Hybrid Lead Halide Perovskites (Adv. Energy Mater. 9/2021). <i>Advanced Energy Materials</i> , 2021 , 11, 2170036	21.8	