Ding-Jiang Xue

List of Publications by Year
in descending order

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67 papers	7,560 citations	87723 38 h-index	98622 67 g-index
68 all docs	68 docs citations	68 times ranked	9018 citing authors

#	Article	IF	Citations
1	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. Nature Energy, 2020, 5, 131-140.	19.8	894
2	Thin-film Sb2Se3 photovoltaics with oriented one-dimensional ribbons and benign grain boundaries. Nature Photonics, 2015, 9, 409-415.	15.6	781
3	Efficient tandem solar cells with solution-processed perovskite on textured crystalline silicon. Science, 2020, 367, 1135-1140.	6.0	525
4	Improving the Electrode Performance of Ge through Ge@C Coreâ€“Shell Nanoparticles and Graphene Networks. Journal of the American Chemical Society, 2012, 134, 2512-2515.	6.6	436
5	Regulating strain in perovskite thin films through charge-transport layers. Nature Communications, 2020, 11, 1514.	5.8	346
6	Thermal Evaporation and Characterization of Sb₂Se₃ Thin Film for Substrate Sb₂Se₃/CdS Solar Cells. ACS Applied Materials & Interfaces, 2014, 6, 10687-10695.	4.0	326
7	Thermodynamically Stable Orthorhombic Î³-CsPbI₃ Thin Films for High-Performance Photovoltaics. Journal of the American Chemical Society, 2018, 140, 11716-11725.	6.6	308
8	GeSe Thin-Film Solar Cells Fabricated by Self-Regulated Rapid Thermal Sublimation. Journal of the American Chemical Society, 2017, 139, 958-965.	6.6	238
9	Anisotropic Photoresponse Properties of Single Micrometerâ€Sized GeSe Nanosheet. Advanced Materials, 2012, 24, 4528-4533.	11.1	229
10	Polar Solvent Induced Lattice Distortion of Cubic CsPbI₃ Nanocubes and Hierarchical Self-Assembly into Orthorhombic Single-Crystalline Nanowires. Journal of the American Chemical Society, 2018, 140, 11705-11715.	6.6	223
11	General Space-Confined On-Substrate Fabrication of Thickness-Adjustable Hybrid Perovskite Single-Crystalline Thin Films. Journal of the American Chemical Society, 2016, 138, 16196-16199.	6.6	205
12	Air-Stable In-Plane Anisotropic GeSe₂ for Highly Polarization-Sensitive Photodetection in Short Wave Region. Journal of the American Chemical Society, 2018, 140, 4150-4156.	6.6	180
13	Antimony selenide thin-film solar cells. Semiconductor Science and Technology, 2016, 31, 063001.	1.0	178
14	Enhanced Sb₂Se₃solar cell performance through theory-guided defect control. Progress in Photovoltaics: Research and Applications, 2017, 25, 861-870.	4.4	154
15	Rational design and electron transfer kinetics of MoS2/CdS nanodots-on-nanorods for efficient visible-light-driven hydrogen generation. Nano Energy, 2016, 28, 319-329.	8.2	140
16	Strain in perovskite solar cells: origins, impacts and regulation. National Science Review, 2021, 8, nwab047.	4.6	127
17	Improving the performance of Sb₂Se₃ thin film solar cells over 4% by controlled addition of oxygen during film deposition. Progress in Photovoltaics: Research and Applications, 2015, 23, 1828-1836.	4.4	120
18	Investigation of Oxygen Passivation for High-Performance All-Inorganic Perovskite Solar Cells. Journal of the American Chemical Society, 2019, 141, 18075-18082.	6.6	120

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19	Polarizationâ€Sensitive Ultraviolet Photodetection of Anisotropic 2D GeS₂. Advanced Functional Materials, 2019, 29, 1900411.	7.8	120
20	Fully Air-Bladed High-Efficiency Perovskite Photovoltaics. Joule, 2019, 3, 402-416.	11.7	119
21	Tuning the Fermi-level of TiO₂mesoporous layer by lanthanum doping towards efficient perovskite solar cells. Nanoscale, 2016, 8, 16881-16885.	2.8	103
22	Facile Synthesis of Germanium Nanocrystals and Their Application in Organicâ€“Inorganic Hybrid Photodetectors. Advanced Materials, 2011, 23, 3704-3707.	11.1	102
23	CuSbSe₂ as a Potential Photovoltaic Absorber Material: Studies from Theory to Experiment. Advanced Energy Materials, 2015, 5, 1501203.	10.2	99
24	Bandgap Engineering of Monodispersed Cu_{2â€“x}S_ySe_{1â€“y} Nanocrystals through Chalcogen Ratio and Crystal Structure. Journal of the American Chemical Society, 2011, 133, 18558-18561.	6.6	96
25	Hydrazine solution processed Sb2S3, Sb2Se3 and Sb2(S1â”xSex)3 film: molecular precursor identification, film fabrication and band gap tuning. Scientific Reports, 2015, 5, 10978.	1.6	91
26	Investigation of Physical and Electronic Properties of GeSe for Photovoltaic Applications. Advanced Electronic Materials, 2017, 3, 1700141.	2.6	81
27	Crystallization Kinetics Modulation of FASnI₃ Films with Preâ€nucleation Clusters for Efficient Leadâ€Free Perovskite Solar Cells. Angewandte Chemie - International Edition, 2021, 60, 3693-3698.	7.2	80
28	GeSe thin-film solar cells. Materials Chemistry Frontiers, 2020, 4, 775-787.	3.2	75
29	Buried homojunction in CdS/Sb2Se3 thin film photovoltaics generated by interfacial diffusion. Applied Physics Letters, 2017, 111, .	1.5	71
30	In situ sulfurization to generate Sb₂(Se_{1â€‰â”â€‰x}S_x)₃ alloyed films and their application for photovoltaics. Progress in Photovoltaics: Research and Applications, 2017, 25, 113-122.	4.4	70
31	Highâ€Efficiency CsPbI₂Br Perovskite Solar Cells with Dopantâ€Free Poly(3â€hexylthiophene) Hole Transporting Layers. Advanced Energy Materials, 2020, 10, 2000501.	10.2	69
32	Inâ€Plane Optical Anisotropy of Lowâ€Symmetry 2D GeSe. Advanced Optical Materials, 2019, 7, 1801311.	3.6	68
33	An antibonding valence band maximum enables defect-tolerant and stable GeSe photovoltaics. Nature Communications, 2021, 12, 670.	5.8	58
34	Sulfurization induced surface constitution and its correlation to the performance of solution-processed Cu2ZnSn(S,Se)4 solar cells. Scientific Reports, 2014, 4, 6288.	1.6	53
35	Ambient CdCl2 treatment on CdS buffer layer for improved performance of Sb2Se3 thin film photovoltaics. Applied Physics Letters, 2015, 107, .	1.5	50
36	Sb₂(Se_{1â€“x}S_x)₃ Thinâ€Film Solar Cells Fabricated by Singleâ€Source Vapor Transport Deposition. Solar Rrl, 2019, 3, 1800280.	3.1	48

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37	Controlling the Crystallization Kinetics of Leadâ€Free Tin Halide Perovskites for High Performance Green Photovoltaics. Advanced Energy Materials, 2021, 11, 2102131.	10.2	47
38	Synthesis and characterization of hydrazine solution processed Cu12Sb4S13 film. Solar Energy Materials and Solar Cells, 2016, 144, 33-39.	3.0	44
39	Weak Interlayer Interaction in 2D Anisotropic GeSe₂. Advanced Science, 2019, 6, 1801810.	5.6	40
40	Solution Synthesis of Layered van der Waals (vdW) Ferromagnetic CrGeTe₃ Nanosheets from a Non-vdW Cr₂Te₃Template. Journal of the American Chemical Society, 2020, 142, 4438-4444.	6.6	39
41	Highâ€Mobility Hydrophobic Conjugated Polymer as Effective Interlayer for Airâ€Stable Efficient Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800232.	3.1	36
42	Interfacial Strain Engineering in Wide-Bandgap GeS Thin Films for Photovoltaics. Journal of the American Chemical Society, 2021, 143, 9664-9671.	6.6	36
43	Generalized Water-Processed Metal Chalcogenide Complexes: Synthesis and Applications. Chemistry of Materials, 2015, 27, 8048-8057.	3.2	33
44	Robust Selfâ€Assembled Molecular Passivation for Highâ€Performance Perovskite Solar Cells. Angewandte Chemie - International Edition, 2022, 61, .	7.2	32
45	Three-Dimensional Optical Anisotropy of Low-Symmetry Layered GeS. ACS Applied Materials & Interfaces, 2019, 11, 24247-24253.	4.0	27
46	Boosting the efficiency of GeSe solar cells by low-temperature treatment of p-n junction. Science China Materials, 2021, 64, 2118-2126.	3.5	24
47	Synthesis of Wurtzite Cu₂ZnGeSe₄ Nanocrystals and their Thermoelectric Properties. Chemistry - an Asian Journal, 2013, 8, 2383-2387.	1.7	21
48	Synthesis and characterization of NaSbS 2 thin film for potential photodetector and photovoltaic application. Chinese Chemical Letters, 2017, 28, 881-887.	4.8	21
49	Crystallization Kinetics Modulation of FASnI₃ Films with Preâ€nucleation Clusters for Efficient Leadâ€Free Perovskite Solar Cells. Angewandte Chemie, 2021, 133, 3737-3742.	1.6	20
50	Improving the photo current of the [60]PCBM/P3HT photodetector device by using wavelength-matched photonic crystals. Journal of Materials Chemistry C, 2014, 2, 1500.	2.7	19
51	In-plane anisotropic 2D Ge-based binary materials for optoelectronic applications. Chemical Communications, 2021, 57, 565-575.	2.2	19
52	Strain-engineering the in-plane electrical anisotropy of GeSe monolayers. Physical Chemistry Chemical Physics, 2020, 22, 914-918.	1.3	16
53	Tuning the Optical Absorption Property of GeSe Thin Films by Annealing Treatment. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800370.	1.2	12
54	Electro-Optic Modulation Using Metal-Free Perovskites. ACS Applied Materials & Interfaces, 2021, 13, 19042-19047.	4.0	12

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55	Investigation of weak interlayer coupling in 2D layered GeS2 from theory to experiment. Nano Research, 2022, 15, 1013-1019.	5.8	11
56	Versatile Solution-Processed Synthesis of Two-Dimensional Ultrathin Metal Chalcogenides Following Frankâ€“van der Merwe Growth. ACS Applied Materials & Interfaces, 2017, 9, 27102-27110.	4.0	9
57	Strain-engineering the electronic properties and anisotropy of GeSe₂ monolayers. RSC Advances, 2018, 8, 33445-33450.	1.7	9
58	One-Pot Synthesis Enables Magnetic Coupled Cr₂Te₃/MnTe/Cr₂Te₃ Integrated Heterojunction Nanorods. Nano Letters, 2021, 21, 7684-7690.	4.5	8
59	Robust Selfâ€Assembled Molecular Passivation for Highâ€Performance Perovskite Solar Cells. Angewandte Chemie, 2022, 134, .	1.6	8
60	Roomâ€Temperature Solutionâ€Processed PbS Quantum Dot Solar Cells. Chinese Journal of Chemistry, 2020, 38, 356-360.	2.6	6
61	Strain-engineering the anisotropic electrical properties of low-symmetry bilayer GeSe. Journal of Applied Physics, 2019, 125, .	1.1	5
62	Identifying the Crystalline Orientation of Mechanically Exfoliated Anisotropic Layered Materials through Their Morphologies. Advanced Materials Interfaces, 2020, 7, 2000612.	1.9	5
63	Investigation of the sublimation mechanism of GeSe and GeS. Chemical Communications, 2021, 57, 11461-11464.	2.2	5
64	Wide-bandgap perovskites for indoor photovoltaics. Science Bulletin, 2021, 66, 2047-2049.	4.3	4
65	Surface-Defect States in Photovoltaic Absorber GeSe. Journal of Physical Chemistry Letters, 2021, 12, 10249-10254.	2.1	4
66	Solution-processed Ge(<scp>ii</scp>)-based chalcogenide thin films with tunable bandgaps for photovoltaics. Chemical Science, 2022, 13, 5944-5950.	3.7	4
67	High-Mobility Hydrophobic Conjugated Polymer as Effective Interlayer for Air-Stable Efficient Perovskite Solar Cells (Solar RRL 1â•2019). Solar Rrl, 2019, 3, 1970015.	3.1	1