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List of Publications by Year
in descending order

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58 papers	7,572 citations	126858 33 h-index	197736 49 g-index
60 all docs	60 docs citations	60 times ranked	8140 citing authors

#	Article	IF	Citations
1	Water-Accelerated Photooxidation of CH₃NH₃PbI₃ Perovskite. Journal of the American Chemical Society, 2022, 144, 5552-5561.	6.6	40
2	Dilution effect for highly efficient multiple-component organic solar cells. Nature Nanotechnology, 2022, 17, 53-60.	15.6	99
3	Electrochemical oxidation of pharmaceuticals in synthetic fresh human urine: Using selective radical quenchers to reveal the dominant degradation pathways and the scavenging effects of individual urine constituents. Water Research, 2022, 221, 118722.	5.3	16
4	Sn4+ precursor enables 12.4% efficient kesterite solar cell from DMSO solution with open circuit voltage deficit below 0.30 V. Science China Materials, 2021, 64, 52-60.	3.5	85
5	On interface recombination, series resistance, and absorber diffusion length in BiI3 solar cells. Journal of Applied Physics, 2021, 129, 133101.	1.1	3
6	Selective oxidation of pharmaceuticals and suppression of perchlorate formation during electrolysis of fresh human urine. Water Research, 2021, 198, 117106.	5.3	23
7	Forecasting the Decay of Hybrid Perovskite Performance Using Optical Transmittance or Reflected Dark-Field Imaging. ACS Energy Letters, 2020, 5, 946-954.	8.8	22
8	On understanding bandgap bowing and optoelectronic quality in Pbâ€“Sn alloy hybrid perovskites. Journal of Materials Chemistry A, 2019, 7, 16285-16293.	5.2	64
9	Progress and challenges in perovskite photovoltaics from single- to multi-junction cells. Materials Today Energy, 2019, 12, 70-94.	2.5	67
10	Complexation Chemistry in <i>N,N</i>-Dimethylformamide-Based Molecular Inks for Chalcogenide Semiconductors and Photovoltaic Devices. Journal of the American Chemical Society, 2019, 141, 298-308.	6.6	57
11	Enhancing Defect Tolerance and Phase Stability of High-Bandgap Perovskites via Guanidinium Alloying. ACS Energy Letters, 2018, 3, 1261-1268.	8.8	105
12	Hybrid perovskite films approaching the radiative limit with over 90% photoluminescence quantum efficiency. Nature Photonics, 2018, 12, 355-361.	15.6	408
13	Solution-Processed BiI3 Films with 1.1 eV Quasi-Fermi Level Splitting: The Role of Water, Temperature, and Solvent during Processing. ACS Omega, 2018, 3, 12713-12721.	1.6	18
14	Solutionâ€Processed Lowâ€Bandgap CuIn(S,Se)₂ Absorbers for Highâ€Efficiency Singleâ€Junction and Monolithic Chalcopyriteâ€Perovskite Tandem Solar Cells. Advanced Energy Materials, 2018, 8, 1801254.	10.2	56
15	Overcoming the Photovoltage Plateau in Large Bandgap Perovskite Photovoltaics. Nano Letters, 2018, 18, 3985-3993.	4.5	97
16	Photoluminescence and Photoconductivity to Assess Maximum Open-Circuit Voltage and Carrier Transport in Hybrid Perovskites and Other Photovoltaic Materials. Journal of Physical Chemistry Letters, 2018, 9, 3779-3792.	2.1	17
17	Solution-processed chalcopyriteâ€“perovskite tandem solar cells in bandgap-matched two- and four-terminal architectures. Journal of Materials Chemistry A, 2017, 5, 3214-3220.	5.2	23
18	Correlation between Photoluminescence and Carrier Transport and a Simple In Situ Passivation Method for High-Bandgap Hybrid Perovskites. Journal of Physical Chemistry Letters, 2017, 8, 3289-3298.	2.1	41

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19	Evolution of Morphology and Composition during Annealing and Selenization in Solution-Processed Cu₂ZnSn(S,Se)₄. Chemistry of Materials, 2017, 29, 9328-9339.	3.2	36
20	Current-Induced Phase Segregation in Mixed Halide Hybrid Perovskites and its Impact on Two-Terminal Tandem Solar Cell Design. ACS Energy Letters, 2017, 2, 1841-1847.	8.8	161
21	Highly Efficient Perovskiteâ€“Perovskite Tandem Solar Cells Reaching 80% of the Theoretical Limit in Photovoltage. Advanced Materials, 2017, 29, 1702140.	11.1	278
22	Quasi-Fermi level splitting, stability, and healing of high bandgap hybrid perovskites using photoluminescence, composition spread libraries, and post-synthesis treatments. , 2016, , .		0
23	V<inf>OC</inf> overestimation from photoluminescence quantum yield in disordered absorber layers. , 2016, , .		2
24	Stabilized Wide Bandgap Perovskite Solar Cells by Tin Substitution. Nano Letters, 2016, 16, 7739-7747.	4.5	193
25	Synthesis of Ligand-free CdS Nanoparticles within a Sulfur Copolymer Matrix. Journal of Visualized Experiments, 2016, , .	0.2	0
26	Optoelectronic Quality and Stability of Hybrid Perovskites from MAPbI₃ to MAPbI₂Br Using Composition Spread Libraries. Journal of Physical Chemistry C, 2016, 120, 893-902.	1.5	65
27	Nanoparticle Ligands and Pyrolized Graphitic Carbon in CZTSSe Photovoltaic Devices. Chemistry of Materials, 2016, 28, 135-145.	3.2	30
28	Enhanced Carrier Lifetimes of Pure Iodide Hybrid Perovskite via Vapor-Equilibrated Re-Growth (VERG). Journal of Physical Chemistry Letters, 2015, 6, 2503-2508.	2.1	39
29	Screening of alkali elements in Cu2ZnSn(S,Se)4. , 2015, , .		2
30	Composition Control and Formation Pathway of CZTS and CZTGS Nanocrystal Inks for Kesterite Solar Cells. Chemistry of Materials, 2015, 27, 1855-1862.	3.2	70
31	The effect of nanocrystal reaction time on Cu2ZnSn(S,Se)4 solar cells from nanocrystal inks. Solar Energy Materials and Solar Cells, 2015, 141, 383-390.	3.0	13
32	Lithium-doping inverts the nanoscale electric field at the grain boundaries in Cu₂ZnSn(S,Se)₄ and increases photovoltaic efficiency. Physical Chemistry Chemical Physics, 2015, 17, 23859-23866.	1.3	185
33	8% Efficient Cu₂ZnSn(S,Se)₄ Solar Cells from Redox Equilibrated Simple Precursors in DMSO. Advanced Energy Materials, 2014, 4, 1301823.	10.2	189
34	Nanoscale Surface Potential Variation Correlates with Local S/Se Ratio in Solution-Processed CZTSSe Solar Cells. Nano Letters, 2014, 14, 6926-6930.	4.5	26
35	Quasi-Fermi level splitting and sub-bandgap absorptivity from semiconductor photoluminescence. Journal of Applied Physics, 2014, 116, .	1.1	135
36	Determining the maximum open circuit voltage from absorber photoluminescence in the presence of tail states. , 2014, , .		0

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37	Ink formulation and lowâ€temperature incorporation of sodium to yield 12% efficient Cu(In,Ga)(S,Se)₂ solar cells from sulfide nanocrystal inks. Progress in Photovoltaics: Research and Applications, 2013, 21, 64-71.	4.4	206
38	Mapping the composition dependence of Cu<inf>2</inf>ZnSn(S, Se)<inf>4</inf> absorber quality using composition-spread libraries, photoluminescence, and Raman. , 2013, , .		2
39	8.3% Efficient copper zinc tin sulfoselenide solar cells processed from environmentally benign solvent. , 2013, , .		5
40	Thin film solar cells from sintered nanocrystals. Current Opinion in Chemical Engineering, 2013, 2, 168-177.	3.8	41
41	Enhancing the performance of CZTSSe solar cells with Ge alloying. Solar Energy Materials and Solar Cells, 2012, 105, 132-136.	3.0	188
42	Chemical liquid deposition of CuInSe2 and CuIn(S,Se)2 films for solar cells. Thin Solid Films, 2012, 520, 5431-5437.	0.8	9
43	A generalized and robust method for efficient thin film photovoltaic devices from multinary sulfide nanocrystal inks. , 2011, , .		7
44	A general route to Earth abundant element absorber layers for thin film photovoltaics with high yield using molecular precursors and non-toxic solvents. , 2011, , .		1
45	Earth Abundant Element Cu₂Zn(Sn_{1âˆ’<i>x</i>}Ge_{<i>x</i>})S₄ Nanocrystals for Tunable Band Gap Solar Cells: 6.8% Efficient Device Fabrication. Chemistry of Materials, 2011, 23, 2626-2629.	3.2	316
46	CuIn(S,Se)2thin film solar cells from nanocrystal inks: Effect of nanocrystal precursors. Thin Solid Films, 2011, 520, 523-528.	0.8	25
47	Earthâ€Abundant Element Photovoltaics Directly from Soluble Precursors with High Yield Using a Nonâ€Toxic Solvent. Advanced Energy Materials, 2011, 1, 732-735.	10.2	317
48	Solar cells via selenization of CuInS<inf>2</inf> nanocrystals: Effect of synthesis precursor. , 2010, , .		0
49	Fabrication of 7.2% Efficient CZTSSe Solar Cells Using CZTS Nanocrystals. Journal of the American Chemical Society, 2010, 132, 17384-17386.	6.6	903
50	Dependence of Carrier Mobility on Nanocrystal Size and Ligand Length in PbSe Nanocrystal Solids. Nano Letters, 2010, 10, 1960-1969.	4.5	645
51	Selenization of copper indium gallium disulfide nanocrystal films for thin film solar cells. , 2009, , .		5
52	Solar cells from colloidal nanocrystals: Fundamentals, materials, devices, and economics. Current Opinion in Colloid and Interface Science, 2009, 14, 245-259.	3.4	313
53	Sulfide Nanocrystal Inks for Dense Cu(In_{1âˆ’<i>x</i>}Ga_x)(S_{1âˆ’<i>y</i>}Se_{<i>y</i>})₂ Absorber Films and Their Photovoltaic Performance. Nano Letters, 2009, 9, 3060-3065.	4.5	378
54	Synthesis of Cu₂ZnSnS₄ Nanocrystal Ink and Its Use for Solar Cells. Journal of the American Chemical Society, 2009, 131, 11672-11673.	6.6	723

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55	Development of CuInSe₂ Nanocrystal and Nanoring Inks for Low-Cost Solar Cells. Nano Letters, 2008, 8, 2982-2987.	4.5	545
56	Fabrication of continuous mesoporous carbon films with face-centered orthorhombic symmetry through a soft templating pathway. Journal of Materials Chemistry, 2007, 17, 3639.	6.7	124
57	Nanofabrication of Double-Gyroid Thin Films. Chemistry of Materials, 2007, 19, 768-777.	3.2	120
58	General Method for Simulation of 2D GISAXS Intensities for Any Nanostructured Film Using Discrete Fourier Transforms. Journal of Physical Chemistry C, 2007, 111, 7645-7654.	1.5	29