Heng Sun

List of Publications by Year
in descending order

20 papers	1,154 citations	687363 13 h-index	996975 15 g-index
20 all docs	20 docs citations	20 times ranked	1171 citing authors

#	Article	IF	Citations
1	Cu2ZnSnS4 solar cells with over 10% power conversion efficiency enabled by heterojunction heat treatment. Nature Energy, 2018, 3, 764-772.	39.5	623
2	Cd-Free Cu₂ZnSnS₄solar cell with an efficiency greater than 10% enabled by Al₂O₃passivation layers. Energy and Environmental Science, 2019, 12, 2751-2764.	30.8	112
3	The Role of Hydrogen from ALDâ€Al₂O₃ in Kesterite Cu₂ZnSnS₄ Solar Cells: Grain Surface Passivation. Advanced Energy Materials, 2018, 8, 1701940.	19.5	68
4	Enhanced Heterojunction Interface Quality To Achieve 9.3% Efficient Cd-Free Cu₂ZnSnS₄ Solar Cells Using Atomic Layer Deposition ZnSnO Buffer Layer. Chemistry of Materials, 2018, 30, 7860-7871.	6.7	66
5	Efficiency Enhancement of Kesterite Cu₂ZnSnS₄ Solar Cells via Solution-Processed Ultrathin Tin Oxide Intermediate Layer at Absorber/Buffer Interface. ACS Applied Energy Materials, 2018, 1, 154-160.	5.1	53
6	Beyond 10% efficiency Cu₂ZnSnS₄ solar cells enabled by modifying the heterojunction interface chemistry. Journal of Materials Chemistry A, 2019, 7, 27289-27296.	10.3	46
7	Self-assembled Nanometer-Scale ZnS Structure at the CZTS/ZnCdS Heterointerface for High-Efficiency Wide Band Gap Cu₂ZnSnS₄ Solar Cells. Chemistry of Materials, 2018, 30, 4008-4016.	6.7	37
8	The effect of thermal evaporated MoO3 intermediate layer as primary back contact for kesterite Cu2ZnSnS4 solar cells. Thin Solid Films, 2018, 648, 39-45.	1.8	34
9	Boosting the kesterite Cu2ZnSnS4 solar cells performance by diode laser annealing. Solar Energy Materials and Solar Cells, 2018, 175, 71-76.	6.2	27
10	Largeâ€Grain Spanning Monolayer Cu₂ZnSnSe₄Thinâ€Film Solar Cells Grown from Metal Precursor. Small, 2022, 18, e2105044.	10.0	25
11	Fabrication of Cu2ZnSnS4 thin film solar cells by annealing of reactively sputtered precursors. Journal of Alloys and Compounds, 2017, 701, 55-62.	5.5	15
12	Hybrid Ag Nanowireâ€“ITO as Transparent Conductive Electrode for Pure Sulfide Kesterite Cu₂ZnSnS₄ Solar Cells. Journal of Physical Chemistry C, 2017, 121, 20597-20604.	3.1	14
13	Organic solar cells with near 100% efficiency retention after initial burn-in loss and photo-degradation. Thin Solid Films, 2017, 636, 127-136.	1.8	13
14	11.6% Efficient Pure Sulfide Cu(In,Ga)S₂ Solar Cell through a Cu-Deficient and KCN-Free Process. ACS Applied Energy Materials, 2020, 3, 11974-11980.	5.1	8
15	Defect Engineering for Efficient Cu ₂ ZnSnS ₄ Solar Cells via Moistureâ€Assisted Postâ€Deposition Annealing. Advanced Optical Materials, 0, , 2200607.	7.3	7
16	Effects of Illumination on the Electrochemical Behavior of Selenium Electrodeposition on ITO Substrates. Journal of the Electrochemical Society, 2017, 164, H225-H231.	2.9	6
17	ALD ZnSnO buffer layer for enhancing heterojunction interface quality of CZTS solar cells. , 2018, , .		0
18	Boosting the efficiency of kesterite Cu2ZnSnS4 solar cells by optimizing the heterojunction interface quality. , 2018, , .		0

#	Article	IF	Citations
19	Solution-processed ultrathin SnO2 passivation of Absorber/Buffer Heterointerface and Grain Boundaries for High Efficiency Kesterite Cu2ZnSnS4 Solar Cells. , 2019, , .		0
20	High-efficient Cd-free CZTS solar cells achieved by nanoscale atomic layer deposited aluminium oxide. , 2019, , .		0