

Jiahua Tao

List of Publications by Year in descending order

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257450

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73
docs citations

73
times ranked

1790
citing authors

#	ARTICLE	IF	CITATIONS
1	Solution-processed SnO ₂ interfacial layer for highly efficient Sb ₂ Se ₃ thin film solar cells. Nano Energy, 2019, 60, 802-809.	16.0	111
2	7.1% efficient co-electroplated Cu ₂ ZnSnS ₄ thin film solar cells with sputtered CdS buffer layers. Green Chemistry, 2016, 18, 550-557.	9.0	104
3	A sputtered CdS buffer layer for co-electrodeposited Cu ₂ ZnSnS ₄ solar cells with 6.6% efficiency. Chemical Communications, 2015, 51, 10337-10340.	4.1	83
4	Co-electrodeposited Cu ₂ ZnSnS ₄ thin-film solar cells with over 7% efficiency fabricated via fine-tuning of the Zn content in absorber layers. Journal of Materials Chemistry A, 2016, 4, 3798-3805.	10.3	79
5	Efficient and Hole-Transporting Layer-Free CsPbI ₂ Br Planar Heterojunction Perovskite Solar Cells through Rubidium Passivation. ChemSusChem, 2019, 12, 983-989.	6.8	79
6	Improving the efficiency of Sb ₂ Se ₃ thin-film solar cells by post annealing treatment in vacuum condition. Solar Energy Materials and Solar Cells, 2018, 187, 170-175.	6.2	69
7	Synthesis and characterization of Cu ₂ ZnSnS ₄ thin films by the sulfurization of co-electrodeposited Cu-Zn-S precursor layers for solar cell applications. RSC Advances, 2014, 4, 23977-23984.	3.6	63
8	Investigation of electrically-active defects in Sb ₂ Se ₃ thin-film solar cells with up to 5.91% efficiency via admittance spectroscopy. Solar Energy Materials and Solar Cells, 2018, 186, 324-329.	6.2	63
9	Investigation of electronic transport mechanisms in Sb ₂ Se ₃ thin-film solar cells. Solar Energy Materials and Solar Cells, 2019, 197, 1-6.	6.2	61
10	Composition dependence of the structure and optical properties of Cu ₂ MnxZn _{1-x} SnS ₄ thin films. Journal of Alloys and Compounds, 2015, 627, 388-392.	5.5	53
11	Influence of annealing temperature on structural and optical properties of Cu ₂ MnSnS ₄ thin films fabricated by sol-gel technique. Journal of Alloys and Compounds, 2015, 640, 23-28.	5.5	53
12	Heating rate tuning in structure, morphology and electricity properties of Cu ₂ FeSnS ₄ thin films prepared by sulfurization of metallic precursors. Journal of Alloys and Compounds, 2016, 680, 446-451.	5.5	52
13	Synthesis and characterization of earth-abundant Cu ₂ MnSnS ₄ thin films using a non-toxic solution-based technique. RSC Advances, 2015, 5, 84295-84302.	3.6	51
14	5.91%-efficient Sb ₂ Se ₃ solar cells with a radio-frequency magnetron-sputtered CdS buffer layer. Applied Materials Today, 2019, 16, 367-374.	4.3	49
15	Interface Modification for Planar Perovskite Solar Cell Using Room-Temperature Deposited Nb ₂ O ₅ as Electron Transportation Layer. ACS Applied Energy Materials, 2018, 1, 2000-2006.	5.1	41
16	RF sputtered CdS films as independent or buffered electron transport layer for efficient planar perovskite solar cell. Solar Energy Materials and Solar Cells, 2018, 178, 186-192.	6.2	39
17	Strategic improvement of Cu ₂ MnSnS ₄ films by two distinct post-annealing processes for constructing thin film solar cells. Acta Materialia, 2016, 109, 1-7.	7.9	38
18	Vapor Transport Deposition of Highly Efficient Sb ₂ (S,Se) ₃ Solar Cells via Controllable Orientation Growth. Advanced Functional Materials, 2021, 31, 2101476.	14.9	38

#	ARTICLE	IF	CITATIONS
19	Enhanced performance of carbon-based planar CsPbBr ₃ perovskite solar cells with room-temperature sputtered Nb ₂ O ₅ electron transport layer. <i>Solar Energy</i> , 2019, 191, 263-271.	6.1	37
20	Cd _x Zn _{1-x} S/Sb ₂ Se ₃ thin film photocathode for efficient solar water splitting. <i>Applied Catalysis B: Environmental</i> , 2021, 286, 119872.	20.2	37
21	Cation substitution induced structural transition, band gap engineering and grain growth of Cu ₂ CdZn _{1-x} Sn ₄ thin films. <i>Journal of Alloys and Compounds</i> , 2017, 695, 482-488.	5.5	35
22	An 8.7% efficiency co-electrodeposited Cu ₂ ZnSn ₄ photovoltaic device fabricated via a pressurized post-sulfurization process. <i>Journal of Materials Chemistry C</i> , 2018, 6, 13275-13282.	5.5	34
23	Fabricating over 7%-efficient Sb ₂ (S,Se) ₃ thin-film solar cells by vapor transport deposition using Sb ₂ Se ₃ and Sb ₂ S ₃ mixed powders as the evaporation source. <i>Journal of Power Sources</i> , 2021, 493, 229737.	7.8	32
24	Long-term reliability of silicon wafer-based traditional backsheet modules and double glass modules. <i>RSC Advances</i> , 2015, 5, 65768-65774.	3.6	27
25	Synthesis of Cu ₂ MnSn ₄ thin film deposited on seeded fluorine doped tin oxide substrate via a green and low-cost electrodeposition method. <i>Materials Letters</i> , 2017, 191, 186-188.	2.6	25
26	Growth control and defect passivation toward efficient and low-temperature processed carbon based CsPbI ₂ Br ₂ solar cell. <i>Organic Electronics</i> , 2020, 83, 105731.	2.6	24
27	Electron-Hole Plasma Lasing Dynamics in CsPbCl _m Br _{3-m} Microplate Lasers. <i>ACS Photonics</i> , 2021, 8, 787-797.	6.6	22
28	Influence of deposition potential on Cu ₂ ZnSn ₄ thin film solar cells co-electrodeposited on fluorine-doped tin oxide substrates. <i>Journal of Alloys and Compounds</i> , 2017, 701, 465-473.	5.5	21
29	Efficient carbon-based planar CsPbBr ₃ perovskite solar cells with Li-doped amorphous Nb ₂ O ₅ layer. <i>Journal of Alloys and Compounds</i> , 2020, 842, 155984.	5.5	21
30	Lasing operation in the CsPbBr ₃ perovskite micron hemisphere cavity grown by chemical vapor deposition. <i>Chemical Engineering Journal</i> , 2020, 389, 124395.	12.7	21
31	Multi-source cation/anion doping towards efficient carbon-based CsPbI ₂ Br ₂ solar cells with superior open voltage up to 1.37 V. <i>Solar Energy Materials and Solar Cells</i> , 2021, 221, 110918.	6.2	21
32	Effect of deposition potential on the properties of Cu ₂ ZnSn ₄ films for solar cell applications. <i>Materials Letters</i> , 2014, 135, 8-10.	2.6	19
33	Influence of Se supply for selenization of Cu(In,Ga)Se ₂ precursors deposited by sputtering from a single quaternary target. <i>Materials Letters</i> , 2014, 118, 21-23.	2.6	19
34	Effects of sulfurization temperature on the structural and optical properties of Cu ₂ CdSn ₄ thin films prepared by direct liquid method. <i>Materials Letters</i> , 2017, 193, 206-209.	2.6	19
35	Low temperature solution deposited niobium oxide films as efficient electron transport layer for planar perovskite solar cell. <i>Solar Energy Materials and Solar Cells</i> , 2018, 188, 66-72.	6.2	18
36	Improving the performance of Sb ₂ S ₃ thin-film solar cells by optimization of VTD source-substrate proximity. <i>Solar Energy</i> , 2021, 220, 942-948.	6.1	17

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37	Cu content dependence of morphological, structural and optical properties for Cu ₂ ZnGeS ₄ thin films synthesized by sulfurization of sputtered precursors. <i>Materials Letters</i> , 2015, 159, 1-4.	2.6	16
38	Influence of different S/Se ratio on the properties of Cu ₂ Sn(S x Se _{1-x}) ₃ thin films fabricated by annealing stacked metal precursors. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 6723-6729.	2.2	15
39	Effect of sulfurization temperature of solution-processed Cu ₂ SnS ₃ absorber for low cost photovoltaic cells. <i>Materials Letters</i> , 2018, 228, 447-449.	2.6	15
40	Influence of rare-earth elements doping on structure and optical properties of BiFeO ₃ thin films fabricated by pulsed laser deposition. <i>Applied Surface Science</i> , 2014, 307, 543-547.	6.1	14
41	Synthesis and characterization of Cu-based selenide photovoltaic materials: Cu ₂ FeSnSe ₄ and Cu(In, Tl)ETeQq1 1 0.784314 rgBT /Overlo	5.5	13
42	Improvement performance of two-step electrodepositing Cu ₂ MnSnS ₄ thin film solar cells by tuning Cu-Sn alloy layer deposition time. <i>Materials Chemistry and Physics</i> , 2018, 211, 382-388.	4.0	13
43	RF magnetron sputtering processed transparent conductive aluminum doped ZnO thin films with excellent optical and electrical properties. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 9106-9114.	2.2	13
44	Effects of working pressure and power on photovoltaic and defect properties of magnetron sputtered Sb ₂ Se ₃ thin-film solar cells. <i>Applied Optics</i> , 2020, 59, 948.	1.8	13
45	Superior single-mode lasing in a self-assembly CsPbX ₃ microcavity over an ultrawide pumping wavelength range. <i>Photonics Research</i> , 2021, 9, 54.	7.0	13
46	Vapor Transport Deposition of Sb ₂ (S,Se) ₃ Solar Cells with Continuously Tunable Band Gaps. <i>ACS Applied Energy Materials</i> , 2022, 5, 7240-7248.	5.1	13
47	Investigation of microstructural and optical properties of Cu(In, Al)Se ₂ thin films with various copper content. <i>Journal of Alloys and Compounds</i> , 2015, 651, 208-213.	5.5	12
48	The role of sulfurization temperature on the morphological, structural and optical properties of electroplated Cu ₂ MnSnS ₄ absorbers for photovoltaics. <i>Materials Letters</i> , 2018, 233, 111-114.	2.6	12
49	Effect of potassium doping for ultrasonic sprayed Cu ₂ SnS ₃ thin films for solar cell application. <i>Journal of Materials Science: Materials in Electronics</i> , 2018, 29, 12824-12829.	2.2	12
50	Importance of Interfacial Passivation in the High Efficiency of Sb ₂ Se ₃ Thin-Film Solar Cells: Numerical Evidence. <i>ACS Applied Energy Materials</i> , 2020, 3, 10415-10422.	5.1	12
51	Effect of selenization time on the growth of Cu ₂ ZnSnSe ₄ thin films obtained from rapid thermal processing of stacked metallic layers. <i>Materials Letters</i> , 2014, 126, 1-4.	2.6	11
52	Microstructural and morphological properties of sputtered Cu(In, Al)Se ₂ thin films for solar cell applications. <i>Materials Letters</i> , 2015, 157, 42-44.	2.6	10
53	A large-volume manufacturing of multi-crystalline silicon solar cells with 18.8% efficiency incorporating practical advanced technologies. <i>RSC Advances</i> , 2016, 6, 58046-58054.	3.6	10
54	Effect of the post-selenization time on the structural and optical properties of Cu ₂ MnSn(S,Se) ₄ thin films synthesized by sol-gel technique. <i>Materials Letters</i> , 2017, 201, 185-188.	2.6	10

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55	Influence of CsPbBr ₃ /TiO ₂ interfaces deposited with magnetron sputtering and spin-coating methods on the open voltage deficit and efficiency of all-inorganic CsPbBr ₃ planar solar cells. Journal of Alloys and Compounds, 2021, 860, 157900.	5.5	9
56	Band gap modulation and improved magnetism of double perovskite Sr ₂ KMoO ₆ (K = Fe, Co, Ni, Mn) doped BaTiO ₃ ceramics. Ceramics International, 2022, 48, 7629-7635.	4.8	9
57	Antimony-induced grain growth and properties modification of Cu(In, Al)Se ₂ thin films fabricated by selenization of sputtered stacked precursors. Journal of Alloys and Compounds, 2016, 689, 21-29.	5.5	8
58	Composition control in Cu ₂ ZnSnS ₄ thin films by a sol-gel technique without sulfurization. Journal of Materials Science: Materials in Electronics, 2014, 25, 2703-2709.	2.2	7
59	Resistive Effects on the Spatially Resolved Absolute Electroluminescence of Thin-Film Cu(In, Tl)ETQq1 1 0.784314 rgBT /Overlock 10 Tff 112859-112866.	4.2	7
60	Enhancing photovoltaic performance of carbon-based planar Cs ₃ Sb ₂ I _{9-x} Cl _x solar cells by using P3HT as hole transport material. Journal of Alloys and Compounds, 2022, 897, 162741.	5.5	7
61	The role of tuning Se/(S ²⁻ +Se ²⁻) ratio in the improvement of Cu ₂ MnSn(S, Se) ₄ thin films properties and photovoltaic device performance. Solar Energy, 2019, 179, 279-285.	6.1	6
62	Structural and optical tunability by reaction time of selenization in Cu ₂ FeSnSe ₄ thin films. Journal of Alloys and Compounds, 2015, 646, 68-72.	5.5	5
63	Grain growth enhancing through preheating treatment of a sputtered stacked metallic precursor for Cu(In, Al)Se ₂ thin film solar cells application. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2019, 242, 31-36.	3.5	5
64	Co-electrodeposition of Cu ₃ BiS ₃ thin films in weakly alkaline aqueous solutions for photovoltaic application. Journal of Materials Science: Materials in Electronics, 2022, 33, 585-595.	2.2	5
65	Controllable vapor transport deposition of efficient Sb ₂ (S,Se) ₃ solar cells via adjusting evaporation source area. Journal of Alloys and Compounds, 2022, 906, 164320.	5.5	5
66	Microstructural and morphological properties of spin-coated Cu ₂ MnSn(S,Se) ₄ thin films for solar cell applications. Materials Letters, 2017, 206, 249-252.	2.6	3
67	Effects of bismuth-doping on the properties of Cu(In, Al)Se ₂ thin films prepared by selenization of sputtered stacked precursors. Materials Letters, 2018, 213, 19-22.	2.6	3
68	Room-temperature ferromagnetism in (K _{0.5} Na _{0.5})NbO _{3-x} BaNi _{0.5} Nb _{0.5} O _{3-δ} ferroelectric ceramics with narrow bandgap. Ceramics International, 2021, 47, 20003-20008.	4.8	3
69	Vapor Transport Deposition: Vapor Transport Deposition of Highly Efficient Sb ₂ (S,Se) ₃ Solar Cells via Controllable Orientation Growth (Adv. Funct.) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tff	4.2	7
70	Investigation of CsPbBr ₃ films with controllable morphology and its influence on the photovoltaic properties for carbon-based planar perovskite solar cells. Applied Optics, 2020, 59, 5481.	1.8	2
71	Efficient and Hole-Transporting-Free CsPbI ₂ Br Planar Heterojunction Perovskite Solar Cells through Rubidium Passivation. ChemSusChem, 2019, 12, 960-960.	6.8	1