

Rujun Sun

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Beyond 11% efficient Cu ₂ ZnSn(S _x Se _{4-x}) thin film solar cells by cadmium alloying. Solar Energy Materials and Solar Cells, 2018, 174, 494-498.	3.0	75
2	Cu(In,Ga)Se ₂ solar cell with 16.7% active-area efficiency achieved by sputtering from a quaternary target. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1774-1778.	0.8	38
3	Sb ₂ S ₃ thin films prepared by vulcanizing evaporated metallic precursors. Materials Letters, 2017, 208, 58-61.	1.3	31
4	An investigation on the relationship between open circuit voltage and grain size for CZTSSe thin film solar cells fabricated by selenization of sputtered precursors. Journal of Alloys and Compounds, 2019, 773, 689-697.	2.8	30
5	Cu ₂ ZnSnS ₂ Se ₄ solar cells with 9.6% efficiency via selenizing Cu-Zn-Sn-S precursor sputtered from a quaternary target. Solar Energy Materials and Solar Cells, 2018, 174, 42-49.	3.0	29
6	Beyond 10% efficient CZTSSe thin-film solar cells fabricated by a two-step CdS deposition process. Solar Energy Materials and Solar Cells, 2018, 180, 19-24.	3.0	26
7	On the origin of red luminescence from iron-doped In ₂ -Ga ₂ O ₃ bulk crystals. Applied Physics Letters, 2020, 117, .	1.5	26
8	The effects of annealing temperature on CIGS solar cells by sputtering from quaternary target with Se-free post annealing. Applied Surface Science, 2017, 413, 175-180.	3.1	25
9	Annealing treatment of Cu(In,Ga)Se ₂ absorbers prepared by sputtering a quaternary target for 13.5% conversion efficiency device. Solar Energy, 2015, 118, 375-383.	2.9	24
10	High-sulfur Cu ₂ ZnSn(S _x Se _{4-x}) films by sulfurizing as-deposited CZTSe film: The evolutions of phase, crystallinity and S/(S+Se) ratio. Journal of Alloys and Compounds, 2017, 695, 3139-3145.	2.8	22
11	Multi-layer strategy to enhance the grain size of CIGS thin film fabricating by single quaternary CIGS target. Journal of Alloys and Compounds, 2017, 710, 172-176.	2.8	19
12	Effects of selenization on phase transition and S/(S+Se) ratios of as-deposited Cu ₂ ZnSnS ₄ absorbers sputtered by a quaternary target. Materials Letters, 2016, 164, 140-143.	1.3	18
13	Effects of selenium atmosphere on grain growth for CZTSe absorbers fabricated by selenization of as-sputtered precursors. Journal of Alloys and Compounds, 2018, 755, 224-230.	2.8	18
14	In Situ Dielectric Al ₂ O ₃ /In ₂ Ga ₂ O ₃ Interfaces Grown Using Metal-Organic Chemical Vapor Deposition. Advanced Electronic Materials, 2021, 7, 2100333.	2.6	17
15	The effects of selenium content on Cu(InGa)Se ₂ thin film solar cells by sputtering from quaternary target with Se-free post annealing. Vacuum, 2017, 137, 205-208.	1.6	16
16	Synthesis and Characterization of Large-Area Nanometer-Thin In ₂ Ga ₂ O ₃ Films from Oxide Printing of Liquid Metal Gallium. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1901007.	0.8	16
17	Influences of CuO phase on electrical and optical performance of Cu ₂ O films prepared by middle frequency magnetron sputtering. Applied Surface Science, 2015, 359, 36-40.	3.1	13
18	An investigation on performance enhancement for KF post deposition treated CIGS solar cells fabricated by sputtering CIGS quaternary targets. Vacuum, 2018, 151, 233-236.	1.6	13

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19	An investigation on phase transition for as-sputtered Cu ₂ ZnSnSe ₄ absorbers during selenization. Solar Energy, 2018, 164, 58-64.	2.9	13
20	Defect states and their electric field-enhanced electron thermal emission in heavily Zr-doped In ²⁺ -Ga ₂ O ₃ crystals. Applied Physics Letters, 2020, 117, .	1.5	13
21	Influences of Na on sintering of Cu(In,Ga)Se ₂ quaternary ceramic targets. Journal of Alloys and Compounds, 2015, 636, 335-340.	2.8	12
22	Fabrication of Se-rich Cu(In _{1-X} Ga _X)Se ₂ quaternary ceramic target. Vacuum, 2015, 119, 15-18.	1.6	11
23	Measurement of Capacitance Using Spread Spectrum Time Domain Reflectometry (SSTD) and Dictionary Matching. IEEE Sensors Journal, 2020, 20, 10102-10109.	2.4	11
24	Oxygen annealing induced changes in defects within In ²⁺ -Ga ₂ O ₃ epitaxial films measured using photoluminescence. Journal Physics D: Applied Physics, 2021, 54, 174004.	1.3	11
25	Proposal and Simulation of Ga ₂ O ₃ MOSFET With PN Heterojunction Structure for High-Performance E-Mode Operation. IEEE Transactions on Electron Devices, 2022, 69, 3617-3622.	1.6	11
26	Cu ₂ ZnSnS ₄ ceramic target: Determination of sintering temperature by TGA-DSC. Ceramics International, 2016, 42, 9630-9635.	2.3	9
27	Eliminating the excess Cu _x Se phase in Cu-rich Cu(In,Ga)Se ₂ by In ₂ Se ₃ treatment. Journal of Alloys and Compounds, 2017, 709, 31-35.	2.8	9
28	Investigation on Sb-doped induced Cu(In,Ga)Se ₂ films grain growth by sputtering process with Se-free annealing. Solar Energy, 2017, 157, 1074-1081.	2.9	9
29	Optical Characterization of Gallium Oxide In [±] and In ²⁺ Polymorph Thin-Films Grown on c-Plane Sapphire. Journal of Electronic Materials, 2021, 50, 2990-2998.	1.0	9
30	Ga ₂ Se ₃ treatment of Cu-rich CIGS thin films to fabricate Cu-poor CIGS thin films with large grains and U-shaped Ga distribution. Vacuum, 2018, 152, 184-187.	1.6	8
31	Fabrication of wide band-gap CuGaSe ₂ solar cells for tandem device applications by sputtering from a ternary target and post selenization treatment. Materials Letters, 2018, 230, 128-131.	1.3	8
32	The effects of annealing temperature on CIGSeS solar cells by sputtering from quaternary target with H ₂ S post annealing. Applied Surface Science, 2019, 473, 848-854.	3.1	8
33	Study on the performance of Tungsten-Titanium alloy film as a diffusion barrier for iron in a flexible CIGS solar cell. Solar Energy, 2015, 120, 357-362.	2.9	7
34	Cu(In,Ga)Se ₂ solar cells fabricated by sputtering from copper-poor and selenium-rich ceramic target with selenium-free post treatment. Materials Letters, 2016, 184, 69-72.	1.3	7
35	10.3%-efficient submicron-thick Cu(In,Ga)Se ₂ solar cells with absorber fabricated by sputtering In ₂ Se ₃ , CuGaSe ₂ and Cu ₂ Se targets. Applied Surface Science, 2018, 442, 308-312.	3.1	7
36	Efficient Cu ₂ ZnSn(S _e ,S) ₄ solar cells with 79% fill factor using two-step annealing. Solar Energy Materials and Solar Cells, 2020, 215, 110682.	3.0	7

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37	Fabricating Cu(In,Ga)Se ₂ (CIGS) thin films with large grains based on the quaternary CIGS targets. Vacuum, 2017, 146, 282-286.	1.6	6
38	Two-stage method to enhance the grain size of Cu(In,Ga)Se ₂ absorbers based on sputtering quaternary Cu(In,Ga)Se ₂ target. Materials Letters, 2018, 212, 165-167.	1.3	6
39	Electronic and ionic conductivity in $\hat{\Gamma}^2$ -Ga ₂ O ₃ single crystals. Journal of Applied Physics, 2022, 131, .	1.1	5
40	A study on mechanisms of Sb-doping induced grain growth for Cu(InGa)Se ₂ absorbers deposited from quaternary targets. Journal of Alloys and Compounds, 2017, 727, 572-578.	2.8	4
41	Study on how the content of selenium in the precursors influences the properties of CuInSe ₂ thin films. Applied Surface Science, 2018, 434, 452-455.	3.1	3
42	Pre-deposition of CdS layers to improve the diode quality of CZTSSe solar cells. Materials Letters, 2018, 229, 372-374.	1.3	3
43	Phases formation of Cu ₂ ZnSnS ₄ thin films by sulfurizing stacked precursors by sputtering from Cu Zn and Cu Sn targets. Thin Solid Films, 2019, 690, 137561.	0.8	3
44	Spread Spectrum Time Domain Reflectometry (SSTDR) and Dictionary Matching to Measure Capacitance for PV cells. , 2019, , .		3