Rujun Sun

List of Publications by Year
in descending order

44 papers	659 citations	567281 15 h-index	642732 23 g-index
44 all docs	44 docs citations	44 times ranked	780 citing authors

#	Article	IF	Citations
1	Electronic and ionic conductivity in Î²-Ga2O3 single crystals. Journal of Applied Physics, 2022, 131, .	2.5	5
2	Proposal and Simulation of Ga₂O₃MOSFET With PN Heterojunction Structure for High-Performance E-Mode Operation. IEEE Transactions on Electron Devices, 2022, 69, 3617-3622.	3.0	11
3	Oxygen annealing induced changes in defects within Î²-Ga₂O₃ epitaxial films measured using photoluminescence. Journal Physics D: Applied Physics, 2021, 54, 174004.	2.8	11
4	Optical Characterization of Gallium Oxide Î± and Î² Polymorph Thin-Films Grown on c-Plane Sapphire. Journal of Electronic Materials, 2021, 50, 2990-2998.	2.2	9
5	In Situ Dielectric Al₂O₃/Î²â€Ga₂O₃ Interfaces Grown Using Metalâ€“Organic Chemical Vapor Deposition. Advanced Electronic Materials, 2021, 7, 2100333.	5.1	17
6	Defect states and their electric field-enhanced electron thermal emission in heavily Zr-doped Î² -Ga2O3 crystals. Applied Physics Letters, 2020, 117, .	3.3	13
7	Efficient Cu2ZnSn(Se,S)4 solar cells with 79% fill factor using two-step annealing. Solar Energy Materials and Solar Cells, 2020, 215, 110682.	6.2	7
8	On the origin of red luminescence from iron-doped Î²-Ga2O3 bulk crystals. Applied Physics Letters, 2020, 117, .	3.3	26
9	Measurement of Capacitance Using Spread Spectrum Time Domain Reflectometry (SSTDR) and Dictionary Matching. IEEE Sensors Journal, 2020, 20, 10102-10109.	4.7	11
10	Synthesis and Characterization of Largeâ€Area Nanometerâ€Thin Î²â€Ga₂O₃ Films from Oxide Printing of Liquid Metal Gallium. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1901007.	1.8	16
11	Phases formation of Cu2ZnSnS4 thin films by sulfurizing stacked precursors by sputtering from Cu Zn and Cu Sn targets. Thin Solid Films, 2019, 690, 137561.	1.8	3
12	Spread Spectrum Time Domain Reflectometry (SSTDR) and Dictionary Matching to Measure Capacitance for PV cells. , 2019, , .		3
13	The effects of annealing temperature on CIGSeS solar cells by sputtering from quaternary target with H2S post annealing. Applied Surface Science, 2019, 473, 848-854.	6.1	8
14	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.	5.5	30
15	10.3%-efficient submicron-thick Cu(In,Ga)Se2 solar cells with absorber fabricated by sputtering In2Se3, CuGaSe2 and Cu2Se targets. Applied Surface Science, 2018, 442, 308-312.	6.1	7
16	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.	6.2	26
17	An investigation on performance enhancement for KF post deposition treated CIGS solar cells fabricated by sputtering CIGS quaternary targets. Vacuum, 2018, 151, 233-236.	3.5	13
18	Ga2Se3 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.	3.5	8

#	Article	IF	Citations
19	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.	5.5	18
20	An investigation on phase transition for as-sputtered Cu2ZnSnSe4 absorbers during selenization. Solar Energy, 2018, 164, 58-64.	6.1	13
21	Beyond 11% efficient Cu2ZnSn(Se,S)4 thin film solar cells by cadmium alloying. Solar Energy Materials and Solar Cells, 2018, 174, 494-498.	6.2	75
22	Cu2ZnSnSSe4 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.	6.2	29
23	Two-stage method to enhance the grain size of Cu(In,Ga)Se2 absorbers based on sputtering quaternary Cu(In,Ga)Se2 target. Materials Letters, 2018, 212, 165-167.	2.6	6
24	Study on how the content of selenium in the precursors influences the properties of CuInSe2 thin films. Applied Surface Science, 2018, 434, 452-455.	6.1	3
25	Fabrication of wide band-gap CuGaSe2 solar cells for tandem device applications by sputtering from a ternary target and post selenization treatment. Materials Letters, 2018, 230, 128-131.	2.6	8
26	Pre-deposition of CdS layers to improve the diode quality of CZTSSe solar cells. Materials Letters, 2018, 229, 372-374.	2.6	3
27	The effects of selenium content on Cu(InGa)Se2 thin film solar cells by sputtering from quaternary target with Se-free post annealing. Vacuum, 2017, 137, 205-208.	3.5	16
28	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.	5.5	19
29	Sb2S3 thin films prepared by vulcanizing evaporated metallic precursors. Materials Letters, 2017, 208, 58-61.	2.6	31
30	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.	6.1	25
31	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.	5.5	9
32	Investigation on Sb-doped induced Cu(InGa)Se2 films grain growth by sputtering process with Se-free annealing. Solar Energy, 2017, 157, 1074-1081.	6.1	9
33	Fabricating Cu(In,Ga)Se2 (CIGS) thin films with large grains based on the quaternary CIGS targets. Vacuum, 2017, 146, 282-286.	3.5	6
34	A study on mechanisms of Sb-doping induced grain growth for Cu(InGa)Se2 absorbers deposited from quaternary targets. Journal of Alloys and Compounds, 2017, 727, 572-578.	5.5	4
35	High-sulfur Cu2ZnSn(S,Se)4 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.	5.5	22
36	Cu(In,Ga)Se2 solar cells fabricated by sputtering from copper-poor and selenium-rich ceramic target with selenium-free post treatment. Materials Letters, 2016, 184, 69-72.	2.6	7

#	Article	IF	Citations
37	Cu 2 ZnSnS 4 ceramic target: Determination of sintering temperature by TGâ€“DSC. Ceramics International, 2016, 42, 9630-9635.	4.8	9
38	Effects of selenization on phase transition and S/(S+Se) ratios of as-deposited Cu2ZnSnS4 absorbers sputtered by a quaternary target. Materials Letters, 2016, 164, 140-143.	2.6	18
39	Influences of Na on sintering of Cu(In,Ga)Se2 quaternary ceramic targets. Journal of Alloys and Compounds, 2015, 636, 335-340.	5.5	12
40	Annealing treatment of Cu(In,Ga)Se2 absorbers prepared by sputtering a quaternary target for 13.5% conversion efficiency device. Solar Energy, 2015, 118, 375-383.	6.1	24
41	Cu(In,Ga)Se₂solar 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.	1.8	38
42	Fabrication of Se-rich Cu(In1-XGaX)Se2 quaternary ceramic target. Vacuum, 2015, 119, 15-18.	3.5	11
43	Influences of CuO phase on electrical and optical performance of Cu2O films prepared by middle frequency magnetron sputtering. Applied Surface Science, 2015, 359, 36-40.	6.1	13
44	Study on the performance of Tungstenâ€“Titanium alloy film as a diffusion barrier for iron in a flexible CIGS solar cell. Solar Energy, 2015, 120, 357-362.	6.1	7