Thorsten Rissom

List of Publications by Year
in descending order

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44 papers	885 citations	430874 18 h-index	477307 29 g-index
44 all docs	44 docs citations	44 times ranked	1078 citing authors

#	Article	IF	Citations
1	Investigation of Cu(In,Ga)Se₂ thinâ€film formation during the multiâ€stage coâ€evaporation process. Progress in Photovoltaics: Research and Applications, 2013, 21, 30-46.	8.1	104
2	Junction formation by Zn(O,S) sputtering yields CIGSe-based cells with efficiencies exceeding 18%. Progress in Photovoltaics: Research and Applications, 2014, 22, 161-165.	8.1	86
3	ZnO nanorod arrays as an antireflective coating for Cu(In,Ga)Se₂ thin film solar cells. Progress in Photovoltaics: Research and Applications, 2010, 18, 209-213.	8.1	60
4	Compositional and electrical properties of line and planar defects in Cu(In,Ga)Se₂ thin films for solar cells â€“ a review. Physica Status Solidi - Rapid Research Letters, 2016, 10, 363-375.	2.4	47
5	Increased homogeneity and open-circuit voltage of Cu(In,Ga)Se2 solar cells due to higher deposition temperature. Solar Energy Materials and Solar Cells, 2011, 95, 1028-1030.	6.2	39
6	Reliable wet-chemical cleaning of natively oxidized high-efficiency Cu(In,Ga)Se2 thin-film solar cell absorbers. Journal of Applied Physics, 2014, 116, .	2.5	38
7	Formation of CuInSe₂ and CuGaSe₂ Thinâ€Films Deposited by Threeâ€Stage Thermal Coâ€Evaporation: A Realâ€Time Xâ€Ray Diffraction and Fluorescence Study. Advanced Energy Materials, 2013, 3, 1381-1387.	19.5	37
8	Analysis of Cu(In,Ga)(S,Se)2 thin-film solar cells by means of electron microscopy. Solar Energy Materials and Solar Cells, 2011, 95, 1452-1462.	6.2	35
9	Symmetry-dependence of electronic grain boundary properties in polycrystalline CuInSe2 thin films. Applied Physics Letters, 2011, 99, .	3.3	33
10	Preparation and properties of radio-frequency-sputtered half-Heusler films for use in solar cells. Thin Solid Films, 2011, 519, 1866-1871.	1.8	29
11	Comparative study of Cu(In,Ga)Se2/CdS and Cu(In,Ga)Se2/In2S3 systems by surface photovoltage techniques. Thin Solid Films, 2013, 535, 357-361.	1.8	29
12	Sputtered Zn(O,S) for junction formation in chalcopyriteâ€based thin film solar cells. Physica Status Solidi - Rapid Research Letters, 2010, 4, 109-111.	2.4	28
13	Tapered aluminum-doped vertical zinc oxide nanorod arrays as light coupling layer for solar energy applications. Solar Energy Materials and Solar Cells, 2011, 95, 1437-1440.	6.2	24
14	Electron-beam-induced current at absorber back surfaces of Cu(In,Ga)Se2 thin-film solar cells. Journal of Applied Physics, 2014, 115, .	2.5	24
15	Electronic properties of grain boundaries in Cu(In,Ga)Se2 thin films with various Ga-contents. Solar Energy Materials and Solar Cells, 2012, 103, 86-92.	6.2	22
16	Origins of electrostatic potential wells at dislocations in polycrystalline Cu(In,Ga)Se2 thin films. Journal of Applied Physics, 2014, 115, .	2.5	22
17	Grain-boundary character distribution and correlations with electrical and optoelectronic properties of CuInSe2 thin films. Acta Materialia, 2016, 118, 244-252.	7.9	21
18	Compositional Gradients in Cu(In,Ga)Se$_{f 2}$ Thin Films for Solar Cells and Their Effects on Structural Defects. IEEE Journal of Photovoltaics, 2012, 2, 364-370.	2.5	18

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19	Enhancements in specimen preparation of Cu(In,Ga)(S,Se)2 thin films. Micron, 2012, 43, 470-474.	2.2	17
20	Spray pyrolysis of barrier layers for flexible thin film solar cells on steel. Solar Energy Materials and Solar Cells, 2011, 95, 504-509.	6.2	16
21	Post-growth p-type doping enhancement for ZnSe-based lasers using a Li3N interlayer. Applied Physics Letters, 2002, 81, 4916-4918.	3.3	15
22	Ion beam analysis of Cu(In,Ga)Se 2 thin film solar cells. Applied Surface Science, 2015, 356, 631-638.	6.1	15
23	Symmetry dependent optoelectronic properties of grain boundaries in polycrystalline Cu(In,Ga)Se2 thin films. Journal of Applied Physics, 2014, 115, 023514.	2.5	12
24	Microstrain distribution mapping on CuInSe2 thin films by means of electron backscatter diffraction, X-ray diffraction, and Raman microspectroscopy. Ultramicroscopy, 2016, 169, 89-97.	1.9	12
25	Band alignment at Sb2S3/Cu(In,Ga)Se2 heterojunctions and electronic characteristics of solar cell devices based on them. Applied Physics Letters, 2010, 96, 262101.	3.3	11
26	Examination of growth kinetics of copper rich Cu(In,Ga)Se2-films using synchrotron energy dispersive X-ray diffractometry. Solar Energy Materials and Solar Cells, 2011, 95, 250-253.	6.2	11
27	Metastability of solar cells based on evaporated chalcopyrite absorber layers prepared with varying selenium flux. Thin Solid Films, 2013, 535, 340-342.	1.8	11
28	Metastable behavior of donors in CuGaSe2 under illumination. Applied Physics Letters, 2008, 92, 062107.	3.3	10
29	Microstrain distributions in polycrystalline thin films measured by X-ray microdiffraction. Journal of Applied Crystallography, 2016, 49, 632-635.	4.5	10
30	Composition-dependent nanostructure of Cu(In,Ga)Se 2 powders and thin films. Thin Solid Films, 2015, 582, 356-360.	1.8	8
31	Operation and Catastrophic Optical Degradation of II-VI Laser Diodes at Output Powers larger than 1 W. Physica Status Solidi (B): Basic Research, 2002, 229, 943-948.	1.5	7
32	Buffer-free Cu(In,Ga)Se2-solar cells by near-surface ion implantation. Solar Energy Materials and Solar Cells, 2013, 116, 43-48.	6.2	7
33	In-depth elemental characterization of Cu(In,Ga)Se2 thin film solar cells by means of RBS and PIXE techniques. Nuclear Instruments & Methods in Physics Research B, 2014, 331, 93-95.	1.4	7
34	Luminescence properties of Ga-graded Cu(In,Ga)Se2 thin films. Thin Solid Films, 2012, 520, 3657-3662.	1.8	5
35	The role of the spray pyrolysed Al2O3 barrier layer in achieving high efficiency solar cells on flexible steel substrates. Applied Physics A: Materials Science and Processing, 2011, 104, 407-413.	2.3	4
36	Influence of Mo Back-Contact Oxidation on Properties of CIGSe$_{2}$ Thin Film Solar Cells on Glass Substrates. Japanese Journal of Applied Physics, 2012, 51, 10NC02.	1.5	4

#	Article	IF	Citations
37	Aspects for the optimization of CIGSe growth at low temperatures for application in thin film solar cells on polyimide foil. , 2009, , .		3
38	Evaluating different Na-incorporation methods for low temperature grown CIGSe thin film on polyimide foils. , 2011, , .		1
39	Near-interface doping by ion implantation in Cu(In,Ga)Se2 solar cells. Thin Solid Films, 2011, 519, 7276-7279.	1.8	1
40	Real-time observation of the phase transformations and microstructural changes during the incorporation of In into a thin Cu film at 770K. Journal of Alloys and Compounds, 2014, 588, 644-647.	5.5	1
41	Operation and Catastrophic Optical Degradation of IIâ€“VI Laser Diodes at Output Powers larger than 1 W. Physica Status Solidi (B): Basic Research, 2002, 229, 943-948.	1.5	1
42	Effect of compositional gradients on structural defects in Cu(In, Ga)Se<inf>2</inf> thin films for solar cells. , 2011, , .		0
43	Comparison of Techniques for Strain Measurements in CuInSe2 Absorber Layers of Thin-film Solar Cells. Microscopy and Microanalysis, 2014, 20, 1464-1465.	0.4	0
44	Influence of Mo Back-Contact Oxidation on Properties of CIGSe2Thin Film Solar Cells on Glass Substrates. Japanese Journal of Applied Physics, 2012, 51, 10NC02.	1.5	0