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List of Publications by Year
in descending order

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103 papers	2,468 citations	236925 25 h-index	223800 46 g-index
105 all docs	105 docs citations	105 times ranked	2191 citing authors

#	Article	IF	Citations
1	Chemical etching of tetrahedrite Cu10Cd2Sb4S13 monograin powder materials for solar cell applications. Materials Science in Semiconductor Processing, 2022, 138, 106291.	4.0	4
2	Pyrite as prospective absorber material for monograin layer solar cell. Thin Solid Films, 2022, 743, 139068.	1.8	3
3	Temperature dependent optical and electrical characterization of SnS/CdS solar cell. Thin Solid Films, 2022, 743, 139069.	1.8	3
4	Study of the structure and optoelectronic properties of Cu2Ge(SexS1-x)3 microcrystalline powders. Thin Solid Films, 2022, 742, 139053.	1.8	0
5	Photoelectrochemical properties and band positions of Cd-substituted tetrahedrite Cu10Cd2Sb4S13 monograin materials grown in molten CdI2 and LiI. Thin Solid Films, 2022, 741, 139030.	1.8	0
6	Reduced recombination through CZTS/CdS interface engineering in monograin layer solar cells. JPhys Energy, 2022, 4, 024007.	5.3	10
7	Study of the optical properties of Sb2(Se1-xSx)3 (x = 0â€“1) solid solutions. Materials Science in Semiconductor Processing, 2022, 144, 106571.	4.0	6
8	Identification of Excitons and Biexcitons in Sb 2 Se 3 under High Photoluminescence Excitation Density. Advanced Optical Materials, 2021, 9, 2100107.	7.3	4
9	Routes to develop a [S]/([S]+[Se]) gradient in wide band-gap Cu2ZnGe(S,Se)4 thin-film solar cells. Journal of Alloys and Compounds, 2021, 868, 159253.	5.5	10
10	Detailed photoluminescence study of Cu2Ge(SSe)3 microcrystals. AIP Advances, 2021, 11, 085105.	1.3	1
11	Broad-band photoluminescence of donorâ€“acceptor pairs in tetrahedrite Cu₁₀Cd₂Sb₄S₁₃ microcrystals. Journal Physics D: Applied Physics, 2021, 54, 105102.	2.8	4
12	Detailed Insight into the CZTS/CdS Interface Modification by Air Annealing in Monograin Layer Solar Cells. ACS Applied Energy Materials, 2021, 4, 12374-12382.	5.1	19
13	Characterization of tetrahedrite Cu10Cd2Sb4S13 monograin materials grown in molten CdI2 and LiI. Thin Solid Films, 2021, 739, 138980.	1.8	5
14	Kesterite monograins for solar cells and water splitting applications. Thin Solid Films, 2021, 739, 138981.	1.8	3
15	Properties of Cu-Sb-Se thin films deposited by magnetron co-sputtering for solar cell applications. Thin Solid Films, 2021, 740, 139004.	1.8	4
16	Tailoring of Bound Exciton Photoluminescence Emission in WS₂ Monolayers. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900355.	2.4	13
17	Origin of photoluminescence from antimony selenide. Journal of Alloys and Compounds, 2020, 817, 152716.	5.5	26
18	The effect of S/Se ratio on the properties of Cu2CdGe(SxSe1â^'x)4 microcrystalline powders for photovoltaic applications. Solar Energy, 2020, 209, 646-652.	6.1	5

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19	Effect of absorber surface modification on the optoelectronic properties of Cu2CdGeSe4 solar cells.. Thin Solid Films, 2020, 697, 137822.	1.8	7
20	Study of point defects in wide-bandgap Cu2CdGeS4 microcrystals by temperature and laser power dependent photoluminescence spectroscopy. Journal Physics D: Applied Physics, 2020, 53, 275102.	2.8	4
21	Growth and Characterization of Cu2Zn1â^'xFexSnS4 Thin Films for Photovoltaic Applications. Materials, 2020, 13, 1471.	2.9	10
22	Synthesis and characterization of tetrahedrite Cu10Cd2Sb4S13 monograin material for photovoltaic application. Materials Science in Semiconductor Processing, 2020, 110, 104973.	4.0	8
23	Study of (AgxCu1â^'x)2ZnSn(S,Se)4 monograins synthesized by molten salt method for solar cell applications. Solar Energy, 2020, 198, 586-595.	6.1	14
24	The effect of elevated temperatures on excitonic emission and degradation processes of WS₂ monolayers. Physical Chemistry Chemical Physics, 2020, 22, 22609-22616.	2.8	2
25	Observation of photoluminescence edge emission in CuSbSe2 absorber material for photovoltaic applications. Applied Physics Letters, 2019, 115, 092101.	3.3	6
26	The electrical and optical properties of kesterites. JPhys Energy, 2019, 1, 044002.	5.3	43
27	Observation of band gap fluctuations and carrier localization in Cu₂CdGeSe₄. Journal Physics D: Applied Physics, 2019, 52, 285102.	2.8	7
28	Nano-scale sulfurization of the Cu₂ZnSnSe₄ crystal surface for photovoltaic applications. Journal of Materials Chemistry A, 2019, 7, 24884-24890.	10.3	5
29	The effect of Ag alloying of Cu₂(Zn,Cd)SnS₄ on the monograin powder properties and solar cell performance. Journal of Materials Chemistry A, 2019, 7, 24281-24291.	10.3	31
30	Effect of germanium incorporation on the properties of kesterite Cu2ZnSn(S,Se)4 monograins. Thin Solid Films, 2019, 669, 315-320.	1.8	11
31	Effect of alkali ions (Na+, K+, Cs+) on reaction mechanism of CZTS nano-particles synthesis. Superlattices and Microstructures, 2018, 116, 54-63.	3.1	3
32	Pulsed laser deposition of chalcogenide sulfides from multi- and single-component targets: the non-stoichiometric material transfer. Applied Physics A: Materials Science and Processing, 2018, 124, 1.	2.3	14
33	Photoluminescence study of deep donor- deep acceptor pairs in Cu2ZnSnS4. Materials Science in Semiconductor Processing, 2018, 80, 52-55.	4.0	12
34	Cu(In,Ga)Se2 monograin powders with different Ga content for solar cells. Solar Energy, 2018, 176, 648-655.	6.1	10
35	Study of Cu2CdGeSe4 monograin powders synthesized by molten salt method for photovoltaic applications. Thin Solid Films, 2018, 666, 15-19.	1.8	21
36	Optical and structural properties of orthorhombic and tetragonal polymorphs of Cu2CdGeSe4. Thin Solid Films, 2018, 666, 44-47.	1.8	6

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37	Low temperature time resolved photoluminescence in ordered and disordered Cu2ZnSnS4 single crystals. Physica B: Condensed Matter, 2017, 508, 47-50.	2.7	11
38	Temperature dependent photoreflectance study of Cu2SnS3 thin films produced by pulsed laser deposition. Applied Physics Letters, 2017, 110, .	3.3	35
39	Modification of the optoelectronic properties of Cu2CdSnS4 through low-temperature annealing. Journal of Alloys and Compounds, 2017, 723, 820-825.	5.5	18
40	Influence of order-disorder in Cu2ZnSnS4 powders on the performance of monograin layer solar cells. Thin Solid Films, 2017, 633, 122-126.	1.8	22
41	Study of CZTS Nano-powder Synthesis by Hot Injection Method by Variation of Cu and Zn Concentrations. Energy Procedia, 2016, 102, 136-143.	1.8	4
42	Synthesis of Cu2ZnSnS4 Solar Cell Absorber Material by Sol-gel Method. Energy Procedia, 2016, 102, 102-109.	1.8	11
43	A photoluminescence study of CuInSe₂ single crystals ion implanted with 5 keV hydrogen. Journal Physics D: Applied Physics, 2016, 49, 105108.	2.8	9
44	Temperature dependent electroreflectance study of Cu2ZnSnSe4 solar cells. Materials Science in Semiconductor Processing, 2015, 39, 251-254.	4.0	13
45	Temperature dependent current transport properties in Cu2ZnSnS4 solar cells. Thin Solid Films, 2015, 582, 162-165.	1.8	15
46	Compositionally tunable structure and optical properties of Cu 1.85 (Cd x Zn 1â^'x) 1.1 SnS 4.1 (0 â‰¤ x â‰¤ 1) monograin powders. Thin Solid Films, 2015, 582, 180-183.	1.8	50
47	Reaction enthalpies of Cu2ZnSnSe4 synthesis in KI. Journal of Thermal Analysis and Calorimetry, 2015, 119, 1555-1564.	3.6	11
48	Spray pyrolysis deposition and characterization of highly câ€axis oriented hexagonal ZnS nanorod crystals. Crystal Research and Technology, 2015, 50, 85-92.	1.3	4
49	pâ€“n junction improvements of Cu2ZnSnS4/CdS monograin layer solar cells. Applied Surface Science, 2015, 357, 795-798.	6.1	26
50	Study of structural and optoelectronic properties of Cu2Zn(Sn1â^'xGex)Se4 (x = 0 to 1) alloy compounds. Thin Solid Films, 2015, 582, 176-179.	1.8	34
51	Optical spectroscopy studies of Cu 2 ZnSnSe 4 thin films. Thin Solid Films, 2015, 582, 154-157.	1.8	14
52	Cu2ZnSnSe4 formation and reaction enthalpies in molten NaI starting from binary chalcogenides. Journal of Thermal Analysis and Calorimetry, 2014, 118, 1313-1321.	3.6	5
53	Photoluminescence study of defect clusters in Cu2ZnSnS4 polycrystals. Current Applied Physics, 2014, 14, 447-450.	2.4	60
54	Photoluminescence study of disordering in the cation sublattice of Cu2ZnSnS4. Current Applied Physics, 2014, 14, 1424-1427.	2.4	40

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55	Temperature-dependent photoreflectance of SnS crystals. Journal of Physics and Chemistry of Solids, 2013, 74, 1683-1685.	4.0	51
56	Impact of Cu2ZnSn(SexS1â^'x)4 (x=0.3) compositional ratios on the monograin powder properties and solar cells. Thin Solid Films, 2013, 535, 35-38.	1.8	14
57	Post-growth annealing effect on the performance of Cu2ZnSnSe4 monograin layer solar cells. Thin Solid Films, 2013, 535, 18-21.	1.8	11
58	Defect studies in Cu2ZnSnSe4 and Cu2ZnSn(Se0.75S0.25)4 by admittance and photoluminescence spectroscopy. Materials Science in Semiconductor Processing, 2013, 16, 992-996.	4.0	42
59	Structural and compositional properties of CZTS thin films formed by rapid thermal annealing of electrodeposited layers. Journal of Crystal Growth, 2013, 380, 236-240.	1.5	25
60	Microphotoluminescence study of Cu2ZnSnS4 polycrystals. Journal of Photonics for Energy, 2013, 3, 030599.	1.3	32
61	Isothermal and Two-Temperature Zone Selenization of Mo Layers. Advances in Materials Science and Engineering, 2012, 2012, 1-11.	1.8	10
62	The role of structural properties on deep defect states in Cu2ZnSnS4 studied by photoluminescence spectroscopy. Applied Physics Letters, 2012, 101, .	3.3	128
63	Thermal stability of sputtered Mo/polyimide films and formation of MoSe2 and MoS2 layers for application in flexible Cu(In,Ga)(Se,S)2 based solar cells. Thin Solid Films, 2012, 520, 4163-4168.	1.8	17
64	Preparation and quality assessment of CuS thin films encapsulated in glass. Thin Solid Films, 2012, 520, 4184-4189.	1.8	18
65	CZTS Monograin Powders and Thin Films. Advanced Materials Research, 2011, 222, 8-13.	0.3	13
66	Optical properties of high quality Cu2ZnSnSe4 thin films. Applied Physics Letters, 2011, 99, .	3.3	89
67	Synthesis of Cu2ZnSnS4 monograin powders with different compositions. Energy Procedia, 2011, 10, 203-207.	1.8	40
68	Deep defects in Cu2ZnSnS4 monograin solar cells. Energy Procedia, 2011, 10, 261-265.	1.8	44
69	Influence of compositional deviations on the properties of Cu2ZnSnSe4 monograin powders. Energy Procedia, 2011, 10, 323-327.	1.8	12
70	Photoluminescence and Raman study of Cu2ZnSn(SexS1â^'x)4 monograins for photovoltaic applications. Thin Solid Films, 2011, 519, 7403-7406.	1.8	262
71	ZnCdSeTe Semiconductor Compounds: Preparation and Properties. Materials Research Society Symposia Proceedings, 2011, 1341, 1.	0.1	0
72	Chemical etching of Cu<inf>2</inf>ZnSn(S,Se)<inf>4</inf> monograin powder. , 2010, , .		9

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73	Preparation and Properties of CdTe Films on Mo/Glass Substrates. Materials Research Society Symposia Proceedings, 2009, 1165, 1.	0.1	0
74	Growth of Cu-Rich/Poor CuInS2 thin films by the sequential modulated flux deposition technique. Materials Research Society Symposia Proceedings, 2009, 1165, 1.	0.1	1
75	CuS-based thin films for architectural glazing applications produced by co-evaporation: Morphology, optical and electrical properties. Surface and Coatings Technology, 2009, 204, 593-600.	4.8	47
76	Radiative recombination in Cu2ZnSnSe4 monograins studied by photoluminescence spectroscopy. Thin Solid Films, 2009, 517, 2489-2492.	1.8	158
77	Compositional dependence of Raman scattering and photoluminescence emission in Cuâ€“Gaâ€“Se films grown by MOCVD. Physica B: Condensed Matter, 2009, 404, 1984-1988.	2.7	8
78	Growth and electrical properties of ZnO nanorod arrays prepared by chemical spray pyrolysis. Physica B: Condensed Matter, 2009, 404, 4422-4425.	2.7	32
79	SEM analysis and selenization of Cuâ€“In alloy films produced by co-sputtering of metals. Solar Energy Materials and Solar Cells, 2009, 93, 11-14.	6.2	53
80	Cu2ZnSnSe4 films by selenization of Snâ€“Znâ€“Cu sequential films. Journal of Physics and Chemistry of Solids, 2009, 70, 567-570.	4.0	60
81	Influence of annealing conditions on the structural quality of CuInSe2 thin films. Thin Solid Films, 2008, 516, 7105-7109.	1.8	13
82	Research in solar cell technologies at Tallinn University of Technology. Thin Solid Films, 2008, 516, 7125-7134.	1.8	13
83	The influence of doping with donor type impurities on the properties of CuInSe2. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 609-611.	0.8	2
84	Cu₂Zn_{1â€“x}Cd_x Sn(Se_{1â€“y}S_y)₄ solid solutions as absorber materials for solar cells. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 167-170.	1.8	340
85	Photoluminescence and Raman spectra of the ordered vacancy compound CuGa5Se8. Physica B: Condensed Matter, 2008, 403, 184-189.	2.7	11
86	Selenization of CO-sputtered Cu-In alloy films. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	0
87	SEM analysis and selenization of Cu-Zn-Sn sequential films produced by evaporation of metals. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	4
88	CdTe Films on Mo/Glass Substrates: Preparation and Properties. Materials Research Society Symposia Proceedings, 2008, 1123, 20.	0.1	1
89	High Temperature Properties of CdTe Crystals, Doped by Sb. IEEE Transactions on Nuclear Science, 2007, 54, 763-768.	2.0	5
90	A novel deposition method to grow ZnO nanorods: Spray pyrolysis. Superlattices and Microstructures, 2007, 42, 444-450.	3.1	48

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91	Analysis of the edge emission of highly conductive CuGaTe2. Thin Solid Films, 2007, 515, 6192-6195.	1.8	6
92	Investigation of potential and compositional fluctuations in CuGa3Se5 crystals using photoluminescence spectroscopy. Thin Solid Films, 2007, 515, 6204-6207.	1.8	14
93	The effect of sodium doping to CuInSe2 monograin powder properties. Thin Solid Films, 2007, 515, 5887-5890.	1.8	10
94	High Temperature Properties of CdTe Crystals, doped by Sb. , 2006, , .		0
95	Deep defect related photoluminescence in heavily doped CuGaTe2crystals. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 949-955.	1.8	5
96	Photoluminescence properties of polycrystalline AgGaTe2. Solar Energy Materials and Solar Cells, 2006, 90, 1973-1982.	6.2	21
97	Cu2ZnSnSe4 Monograin Powders for Solar Cell Application. , 2006, , .		12
98	Photoluminescence and Raman spectroscopy of polycrystalline AgInTe2. Thin Solid Films, 2005, 480-481, 246-249.	1.8	17
99	Growth of CuInSe2 monograin powders with different compositions. Materials Research Society Symposia Proceedings, 2005, 865, 14281.	0.1	1
100	<title>Device characteristics of CuInSe<formula><inf><roman>2</roman></inf></formula>-based solar cells</title>. , 2005, , .		2
101	<title>Tailoring the composition and properties of CuInSe<formula><inf><roman>2</roman></inf></formula> materials for solar cell application</title>. , 2005, 5946, 224.		0
102	Photoluminescence studies of heavily doped CuInTe2 crystals. Physica B: Condensed Matter, 2003, 337, 369-374.	2.7	38
103	Deep and edge photoluminescence emission of CuInTe2. Physica Status Solidi (B): Basic Research, 2003, 237, R3-R5.	1.5	4