Thomas Unold

List of Publications by Year
in descending order

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242 papers	12,627 citations	26567 56 h-index	30010 103 g-index
252 all docs	252 docs citations	252 times ranked	9629 citing authors

#	Article	IF	Citations
1	Chalcopyrite Thin-Film Materials and Solar Cells. , 2022, , 335-361.		1
2	Combinatorial inkjet printing for compositional tuning of metal-halide perovskite thin films. Journal of Materials Chemistry A, 2022, 10, 4906-4914.	5.2	12
3	Understanding Performance Limiting Interfacial Recombination in pin Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	95
4	Predicting Solar Cell Performance from Terahertz and Microwave Spectroscopy. Advanced Energy Materials, 2022, 12, .	10.2	40
5	Boron Phosphide Films by Reactive Sputtering: Searching for a Pâ€Type Transparent Conductor. Advanced Materials Interfaces, 2022, 9, .	1.9	8
6	An open-access database and analysis tool for perovskite solar cells based on the FAIR data principles. Nature Energy, 2022, 7, 107-115.	19.8	136
7	Prediction and realisation of high mobility and degenerate p-type conductivity in CaCuP thin films. Chemical Science, 2022, 13, 5872-5883.	3.7	12
8	Revealing the doping density in perovskite solar cells and its impact on device performance. Applied Physics Reviews, 2022, 9, .	5.5	19
9	ZnO/NiO heterostructures with enhanced photocatalytic activity obtained by ultrasonic spraying of a NiO shell onto ZnO nanorods. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 648, 129366.	2.3	18
10	Crystallize It before It Diffuses: Kinetic Stabilization of Thin-Film Phosphorus-Rich Semiconductor CuP₂. Journal of the American Chemical Society, 2022, 144, 13334-13343.	6.6	5
11	Surface preparation for 10% efficient CZTSe solar cells. Progress in Photovoltaics: Research and Applications, 2021, 29, 188-199.	4.4	10
12	Tuning halide perovskite energy levels. Energy and Environmental Science, 2021, 14, 1429-1438.	15.6	124
13	Optoelectronic and material properties of solution-processed Earth-abundant Cu2BaSn(S, Se)4 films for solar cell applications. Nano Energy, 2021, 80, 105556.	8.2	23
14	Comment on â€œResolving spatial and energetic distributions of trap states in metal halide perovskite solar cellsâ€• Science, 2021, 371, .	6.0	24
15	BaZrS₃ Chalcogenide Perovskite Thin Films by H₂S Sulfurization of Oxide Precursors. Journal of Physical Chemistry Letters, 2021, 12, 2148-2153.	2.1	46
16	Electronic Structure of the CdS/Cu(In,Ga)Se₂ Interface of KF- and RbF-Treated Samples by Kelvin Probe and Photoelectron Yield Spectroscopy. ACS Applied Materials & Interfaces, 2021, 13, 7745-7755.	4.0	12
17	Large-Grain Double Cation Perovskites with 18 Î¼s Lifetime and High Luminescence Yield for Efficient Inverted Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 1045-1054.	8.8	54
18	Deconvoluting Energy Transport Mechanisms in Metal Halide Perovskites Using CsPbBr 3 Nanowires as a Model System. Advanced Functional Materials, 2021, 31, 2010704.	7.8	12

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19	Insights into Nucleation and Growth of Colloidal Quaternary Nanocrystals by Multimodal X-ray Analysis. ACS Nano, 2021, 15, 6439-6447.	7.3	18
20	Compositional and Interfacial Engineering Yield High-Performance and Stable p-i-n Perovskite Solar Cells and Mini-Modules. ACS Applied Materials & Interfaces, 2021, 13, 13022-13033.	4.0	69
21	Influence of the Rear Interface on Composition and Photoluminescence Yield of CZTSSe Absorbers: A Case for an Al₂O₃ Intermediate Layer. ACS Applied Materials & Interfaces, 2021, 13, 19487-19496.	4.0	7
22	Pathways toward 30% Efficient Singleâ€Junction Perovskite Solar Cells and the Role of Mobile Ions. Solar Rrl, 2021, 5, 2100219.	3.1	48
23	Charge transfer rates and electron trapping at buried interfaces of perovskite solar cells. Joule, 2021, 5, 2915-2933.	11.7	140
24	Analysis of grain orientation and defects in Sb2Se3 solar cells fabricated by close-spaced sublimation. Solar Energy, 2021, 225, 494-500.	2.9	31
25	Optoelectronic property comparison for isostructural Cu₂BaGeSe₄ and Cu₂BaSnS₄ solar absorbers. Journal of Materials Chemistry A, 2021, 9, 23619-23630.	5.2	10
26	Electroreflectance of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cu</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">S</mml:mi><mml:mn>4</mml:mn></mml:msu. Physical Review Materials, 2021, 5, .	0.9	0
27	Orders of Recombination in Complete Perovskite Solar Cells â€“ Linking Timeâ€Resolved and Steadyâ€State Measurements. Advanced Energy Materials, 2021, 11, 2101823.	10.2	31
28	Photoluminescence study of solution-deposited Cu2BaSnS4 thin films. APL Materials, 2021, 9, .	2.2	5
29	Probing the Origin of the Open Circuit Voltage in Perovskite Quantum Dot Photovoltaics. ACS Nano, 2021, 15, 19334-19344.	7.3	18
30	The Doping Mechanism of Halide Perovskite Unveiled by Alkaline Earth Metals. Journal of the American Chemical Society, 2020, 142, 2364-2374.	6.6	132
31	Monitoring Charge Carrier Diffusion across a Perovskite Film with Transient Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2020, 11, 445-450.	2.1	14
32	Cu/Zn disorder in stoichiometric Cu2ZnSn(S1-xSex)4 semiconductors: A complementary neutron and anomalous X-ray diffraction study. Journal of Alloys and Compounds, 2020, 846, 156304.	2.8	10
33	Improved Quantum Efficiency by Advanced Light Management in Nanotextured Solution-Processed Perovskite Solar Cells. ACS Photonics, 2020, 7, 2589-2600.	3.2	27
34	Effects of Postdeposition Annealing on the Luminescence of Mixed-Phase CsPb₂Br₅/CsPbBr₃ Thin Films. Journal of Physical Chemistry C, 2020, 124, 19514-19521.	1.5	21
35	Dependence of phase transitions on halide ratio in inorganic CsPb(Br_xI_{1â^'x})₃ perovskite thin films obtained from high-throughput experimentation. Journal of Materials Chemistry A, 2020, 8, 22626-22631.	5.2	20
36	Microscopic origins of performance losses in highly efficient Cu(In,Ga)Se2 thin-film solar cells. Nature Communications, 2020, 11, 4189.	5.8	51

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37	Monolithic perovskite/silicon tandem solar cell with >29% efficiency by enhanced hole extraction. Science, 2020, 370, 1300-1309.	6.0	1,120
38	Optical in situ monitoring during the synthesis of halide perovskite solar cells reveals formation kinetics and evolution of optoelectronic properties. Journal of Materials Chemistry A, 2020, 8, 10439-10449.	5.2	43
39	Photoluminescenceâ€Based Characterization of Halide Perovskites for Photovoltaics. Advanced Energy Materials, 2020, 10, 1904134.	10.2	299
40	High-temperature decomposition of Cu₂BaSnS₄ with Sn loss reveals newly identified compound Cu₂Ba₃Sn₂S₈. Journal of Materials Chemistry A, 2020, 8, 11346-11353.	5.2	8
41	Reaction Pathway for Efficient Cu₂ZnSnSe₄ Solar Cells from Alloyed Cuï£¿Sn Precursor via a Cuâ€Rich Selenization Stage. Solar Rrl, 2020, 4, 2000124.	3.1	13
42	Upper limit to the photovoltaic efficiency of imperfect crystals from first principles. Energy and Environmental Science, 2020, 13, 1481-1491.	15.6	107
43	Investigation of near-stoichiometric polycrystalline CuInSe2 thin films by photoreflectance spectroscopy. Journal of Applied Physics, 2020, 127, 125701.	1.1	3
44	Assessment of a W:BiVO₄â€“CuBi₂O₄Tandem Photoelectrochemical Cell for Overall Solar Water Splitting. ACS Applied Materials & Interfaces, 2020, 12, 13959-13970.	4.0	50
45	Water Adsorption Enhances Electrical Conductivity in Transparent P-Type CuI. ACS Applied Materials & Interfaces, 2020, 12, 48741-48747.	4.0	15
46	Effect of Ag incorporation on structure and optoelectronic properties of (Ag1â^'xCux)2ZnSnSe4 solid solutions. Physical Review Materials, 2020, 4, .	0.9	12
47	Radiative recombination properties of near-stoichiometric <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>CuInS</mml:mi><mml:msub><mml:mi mathvariant="normal">e</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> thin films. Physical Review Materials, 2020, 4, .	0.9	2
48	The impact of energy alignment and interfacial recombination on the internal and external open-circuit voltage of perovskite solar cells. Energy and Environmental Science, 2019, 12, 2778-2788.	15.6	570
49	From Bulk to Surface: Sodium Treatment Reduces Recombination at the Nickel Oxide/Perovskite Interface. Advanced Materials Interfaces, 2019, 6, 1900789.	1.9	45
50	On the Relation between the Openâ€Circuit Voltage and Quasiâ€Fermi Level Splitting in Efficient Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901631.	10.2	275
51	Suppressed Deep Traps and Bandgap Fluctuations in Cu₂CdSnS₄ Solar Cells with â‰ˆ8% Efficiency. Advanced Energy Materials, 2019, 9, 1902509.	10.2	65
52	21.6%-Efficient Monolithic Perovskite/Cu(In,Ga)Se₂ Tandem Solar Cells with Thin Conformal Hole Transport Layers for Integration on Rough Bottom Cell Surfaces. ACS Energy Letters, 2019, 4, 583-590.	8.8	155
53	High open circuit voltages in pin-type perovskite solar cells through strontium addition. Sustainable Energy and Fuels, 2019, 3, 550-563.	2.5	57
54	The electrical and optical properties of kesterites. JPhys Energy, 2019, 1, 044002.	2.3	43

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55	Deep Defect States in Wide-Band-Gap ABX₃ Halide Perovskites. ACS Energy Letters, 2019, 4, 1150-1157.	8.8	54
56	Radiative emission from Cu2ZnSnS4/ZnSn core/shell nanocrystals. Journal of Materials Chemistry C, 2019, 7, 6129-6133.	2.7	1
57	Low Temperature Synthesis of Stable Î³â€CsPbI₃ Perovskite Layers for Solar Cells Obtained by High Throughput Experimentation. Advanced Energy Materials, 2019, 9, 1900555.	10.2	108
58	Glow discharge optical emission spectrometry for quantitative depth profiling of CIGS thin-films. Journal of Analytical Atomic Spectrometry, 2019, 34, 1233-1241.	1.6	32
59	In situ investigation of as grown Cu(In,Ga)Se2 thin films by means of photoemission spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	0.9	3
60	Relating Carrier Dynamics and Photovoltaic Device Performance of Single-Crystalline <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>Cu</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi>Zn</mml:mi><mml:mi>Sn</mml:mi><mml:n Physical Review Applied, 2019, 11, .	1.5	11
61	The phase diagram of a mixed halide (Br, I) hybrid perovskite obtained by synchrotron X-ray diffraction. RSC Advances, 2019, 9, 11151-11159.	1.7	76
62	Mixtures of Dopant-Free Spiro-OMeTAD and Water-Free PEDOT as a Passivating Hole Contact in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 9172-9181.	4.0	28
63	Conformal monolayer contacts with lossless interfaces for perovskite single junction and monolithic tandem solar cells. Energy and Environmental Science, 2019, 12, 3356-3369.	15.6	519
64	Investigation of reflectometry for in situ process monitoring and characterization of co-evaporated and stacked Cu-Zn-Sn-S based thin films. Journal of Alloys and Compounds, 2019, 779, 870-878.	2.8	5
65	Open-Circuit Voltages Exceeding 1.26 V in Planar Methylammonium Lead Iodide Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 110-117.	8.8	296
66	High surface recombination velocity limits Quasi-Fermi level splitting in kesterite absorbers. Scientific Reports, 2018, 8, 1874.	1.6	19
67	Structural characterization of off-stoichiometric kesterite-type Cu₂ZnGeSe₄ compound semiconductors: from cation distribution to intrinsic point defect density. CrystEngComm, 2018, 20, 1491-1498.	1.3	30
68	Inhomogeneities in Cu(In,Ga)Se₂ Thin Films for Solar Cells: Bandâ€Gap Versus Potential Fluctuations. Solar Rrl, 2018, 2, 1700199.	3.1	25
69	Fabrication of Regularly Arranged Chalcopyrite Micro Solar Cells via Femtosecond Laser-Induced Forward Transfer for Concentrator Application. ACS Applied Energy Materials, 2018, 1, 27-31.	2.5	6
70	Modulation spectroscopy characterization of Cu based chalcopyrites and kesterites. , 2018, , .		0
71	Synergistic Effects of Double Cation Substitution in Solutionâ€Processed CZTS Solar Cells with over 10% Efficiency. Advanced Energy Materials, 2018, 8, 1802540.	10.2	113
72	Evaluation of recombination losses in thin film solar cells using an LED sun simulator â^' the effect of RbF post-deposition on CIGS solar cells. EPJ Photovoltaics, 2018, 9, 9.	0.8	9

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73	Minority and Majority Charge Carrier Mobility in Cu2ZnSnSe4 revealed by Terahertz Spectroscopy. Scientific Reports, 2018, 8, 14476.	1.6	31
74	Highâ€Efficiency (Li_xCu_{1â^'}_x)₂ZnSn(S,Se)₄ Kesterite Solar Cells with Lithium Alloying. Advanced Energy Materials, 2018, 8, 1801191.	10.2	87
75	The effect of Cu-Zn disorder on charge carrier mobility and lifetime in Cu2ZnSnSe4. Thin Solid Films, 2018, 666, 40-43.	0.8	13
76	Advanced characterization and in-situ growth monitoring of Cu(In,Ga)Se2 thin films and solar cells. Solar Energy, 2018, 170, 102-112.	2.9	11
77	Pre-annealing of metal stack precursors and its beneficial effect on kesterite absorber properties and device performance. Solar Energy Materials and Solar Cells, 2018, 185, 226-232.	3.0	11
78	Visualization and suppression of interfacial recombination for high-efficiency large-area pin perovskite solar cells. Nature Energy, 2018, 3, 847-854.	19.8	721
79	Tradeâ€Offs in Thin Film Solar Cells with Layered Chalcostibite Photovoltaic Absorbers. Advanced Energy Materials, 2017, 7, 1601935.	10.2	58
80	Metal acetate based synthesis of small-sized Cu₂ZnSnS₄ nanocrystals: effect of injection temperature and synthesis time. RSC Advances, 2017, 7, 11752-11760.	1.7	17
81	Cu 2 ZnSnS 4 -based thin films and solar cells by rapid thermal annealing processing. Thin Solid Films, 2017, 628, 1-6.	0.8	45
82	Amorphous oxides as electron transport layers in Cu(In,Ga)Se₂ superstrate devices. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600870.	0.8	8
83	Investigation of the SnS/Cu₂ZnSnS₄ Interfaces in Kesterite Thin-Film Solar Cells. ACS Energy Letters, 2017, 2, 976-981.	8.8	40
84	Identifying the Real Minority Carrier Lifetime in Nonideal Semiconductors: A Case Study of Kesterite Materials. Advanced Energy Materials, 2017, 7, 1700167.	10.2	106
85	Time resolved photoluminescence on Cu(In, Ga)Se2 absorbers: Distinguishing degradation and trap states. Applied Physics Letters, 2017, 110, .	1.5	32
86	In Situ Monitoring of Cu2ZnSnS4 Absorber Formation With Raman Spectroscopy During Mo/Cu2SnS3/ZnS Thin-Film Stack Annealing. IEEE Journal of Photovoltaics, 2017, 7, 906-912.	1.5	6
87	Evolution of opto-electronic properties during film formation of complex semiconductors. Scientific Reports, 2017, 7, 45463.	1.6	47
88	Investigating subsurface damages in semiconductorâ€“insulatorâ€“semiconductor solar cells with THz spectroscopy. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600590.	0.8	3
89	Chemistry and Dynamics of Ge in Kesterite: Toward Band-Gap-Graded Absorbers. Chemistry of Materials, 2017, 29, 9399-9406.	3.2	59
90	Local growth of CuInSe 2 micro solar cells for concentrator application. Materials Today Energy, 2017, 6, 238-247.	2.5	9

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91	Rapid Photovoltaic Device Characterization through Bayesian Parameter Estimation. Joule, 2017, 1, 843-856.	11.7	47
92	Depth distribution of secondary phases in kesterite Cu2ZnSnS4 by angle-resolved X-ray absorption spectroscopy. APL Materials, 2017, 5, .	2.2	14
93	Influence of structure geometry on THz emission from Black Silicon surfaces fabricated by reactive ion etching. Optics Express, 2017, 25, 6604.	1.7	9
94	Measurement of charge carrier mobilities in thin films on metal substrates by reflection time resolved terahertz spectroscopy. Optics Express, 2017, 25, 17227.	1.7	22
95	Quantitative PL imaging of thin film solar cells â€" potential and pitfalls. , 2017, , .		1
96	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.	1.2	47
97	Intragrain charge transport in kesterite thin filmsâ€"Limits arising from carrier localization. Journal of Applied Physics, 2016, 120, .	1.1	33
98	Overcoming the Voc limitation of CZTSe solar cells. , 2016, , .		2
99	Synthesis and Characterization of V-Doped Î²-In₂S₃ Thin Films on FTO Substrates. Journal of Physical Chemistry C, 2016, 120, 28753-28761.	1.5	31
100	Oxygen deficiency and Sn doping of amorphous Ga2O3. Applied Physics Letters, 2016, 108, .	1.5	103
101	Charge carrier dynamics in Cu<inf>2</inf>ZnSn(S/Se)<inf>4</inf> thin film solar cells measured by time resolved terahertz and microwave spectroscopy. , 2016, , .		0
102	Radiative recombination from localized states in CZT(S, Se) investigated by combined PL and TRPL at low temperatures. , 2016, , .		1
103	Quantitative PL imaging of thin film solar cells â€" Potential and pitfalls. , 2016, , .		8
104	Compositional dependence of charge carrier transport in kesterite Cu2ZnSnS4solar cells. Journal of Applied Physics, 2016, 120, 225703.	1.1	11
105	Temperature- and intensity-dependent photovoltaic measurements to identify dominant recombination pathways. , 2016, , .		2
106	Secondary phases and their influence on the composition of the kesterite phase in CZTS and CZTSe thin films. Physical Chemistry Chemical Physics, 2016, 18, 15988-15994.	1.3	77
107	Investigation of the potassium fluoride post deposition treatment on the CIGSe/CdS interface using hard X-ray photoemission spectroscopy â€" a comparative study. Physical Chemistry Chemical Physics, 2016, 18, 14129-14138.	1.3	26
108	Direct Time-Resolved Observation of Carrier Trapping and Polaron Conductivity in BiVO₄. ACS Energy Letters, 2016, 1, 888-894.	8.8	111

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109	Earth abundant thin film solar cells from co-evaporated Cu2SnS3 absorber layers. Journal of Alloys and Compounds, 2016, 689, 182-186.	2.8	24
110	Temperature dependency of Cu/Zn ordering in CZTSe kesterites determined by anomalous diffraction. Physica Status Solidi (B): Basic Research, 2016, 253, 1890-1897.	0.7	39
111	Effects of Thermochemical Treatment on CuSbS₂ Photovoltaic Absorber Quality and Solar Cell Reproducibility. Journal of Physical Chemistry C, 2016, 120, 18377-18385.	1.5	67
112	Effect of precursor stacking order and sulfurization temperature on compositional homogeneity of CZTS thin films. Thin Solid Films, 2016, 615, 402-408.	0.8	41
113	Beyond Bulk Lifetimes: Insights into Lead Halide Perovskite Films from Time-Resolved Photoluminescence. Physical Review Applied, 2016, 6, .	1.5	194
114	Optical methodology for process monitoring of chalcopyrite photovoltaic technologies: Application to low cost Cu(In,Ga)(S,Se)2 electrodeposition based processes. Solar Energy Materials and Solar Cells, 2016, 158, 168-183.	3.0	51
115	Photochemically Driven Modulated Charge Transfer at Local Contacts between CH₃NH₃PbI₃ and Carboxylated Multiwalled Carbon Nanotubes. Journal of Physical Chemistry C, 2016, 120, 3876-3881.	1.5	8
116	Deep Defects in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Cu</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mm stretchy="false">(</mml:mo><mml:mi) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 462 Td (mathvariant="normal">S</mml:mi><mml:mo>,</m	1.5	67
117	Effects of Disorder on Carrier Transport in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>Cu</mml:mi></mml:mrow><mml:mrow><mml:mn>2 Physical Review Applied, 2015, 4, .	1.5	73
118	Sudden stress relaxation in compound semiconductor thin films triggered by secondary phase segregation. Physical Review B, 2015, 92, .	1.1	22
119	Effect of Na presence during CuInSe2 growth on stacking fault annihilation and electronic properties. Applied Physics Letters, 2015, 107, .	1.5	23
120	Fineâ€Tuning the Sn Content in CZTSSe Thin Films to Achieve 10.8% Solar Cell Efficiency from Sprayâ€Deposited Waterâ€“Ethanolâ€Based Colloidal Inks. Advanced Energy Materials, 2015, 5, 1501404.	10.2	120
121	Investigations of the main loss mechanisms in Cu2ZnSn(S,Se)4 solar cells spray-coated from water-ethanol based ink: Reducing the density of defects to reach efficiencies close to 10%. , 2015, , .		0
122	Raman spectroscopy study on in-situ monitoring of Cu2ZnSnS4 synthesis. , 2015, , .		2
123	The Importance of Sodium Control in CIGSe Superstrate Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 378-381.	1.5	15
124	Defect study of Cu2ZnSn(SxSe1â^'x)4 thin film absorbers using photoluminescence and modulated surface photovoltage spectroscopy. Applied Physics Letters, 2015, 106, .	1.5	30
125	Impact of sodium on the device characteristics of low temperature-deposited Cu(In,Ga)Se 2 -solar cells. Thin Solid Films, 2015, 582, 85-90.	0.8	12
126	The role of interparticle heterogeneities in the selenization pathway of Cuâ€“Znâ€“Snâ€“S nanoparticle thin films: a real-time study. Journal of Materials Chemistry C, 2015, 3, 7128-7134.	2.7	21

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127	Locally resolved investigation of wedged Cu(In,Ga)Se 2 films prepared by physical vapor deposition using hard X-ray photoelectron and X-ray fluorescence spectroscopy. Thin Solid Films, 2015, 582, 361-365.	0.8	1
128	Interference effects in photoluminescence spectra of Cu2ZnSnS4 and Cu(In,Ga)Se2 thin films. Journal of Applied Physics, 2015, 118, .	1.1	45
129	Improved performance of Geâ€alloyed CZTGeSSe thinâ€film solar cells through control of elemental losses. Progress in Photovoltaics: Research and Applications, 2015, 23, 376-384.	4.4	186
130	Gallium gradients in Cu(In,Ga)Se₂thin-film solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 717-733.	4.4	122
131	Cu(In,Ga)Se₂ superstrate solar cells: prospects and limitations. Progress in Photovoltaics: Research and Applications, 2015, 23, 1228-1237.	4.4	50
132	Investigation of Cu-poor and Cu-rich Cu(In,Ga)Se2/CdS interfaces using hard X-ray photoelectron spectroscopy. Thin Solid Films, 2015, 582, 366-370.	0.8	11
133	Origins of electrostatic potential wells at dislocations in polycrystalline Cu(In,Ga)Se2 thin films. Journal of Applied Physics, 2014, 115, .	1.1	22
134	Generalized current-voltage analysis and efficiency limitations in non-ideal solar cells: Case of Cu2ZnSn(SxSe1â^'x)4 and Cu2Zn(SnyGe1â^'y)(SxSe1â^'x)4. Journal of Applied Physics, 2014, 115, .	1.1	65
135	Charge carrier mobilities and dynamics in thin film compound semiconductor materials from transient Thz absorption. , 2014, , .		4
136	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.	4.4	86
137	Electron-beam-induced current at absorber back surfaces of Cu(In,Ga)Se2 thin-film solar cells. Journal of Applied Physics, 2014, 115, .	1.1	24
138	Phase-transition-driven growth of compound semiconductor crystals from ordered metastable nanorods. Nature Communications, 2014, 5, 3133.	5.8	98
139	Co-evaporated CuInSe<inf>2</inf>: Influence of growth temperature and Na on solar cell performance. , 2014, , .		0
140	Defects in Cu<inf>2</inf>ZnSn(S,Se)<inf>4</inf> solar cells studied by photoluminescence, admittance and IVT. , 2014, , .		1
141	Experimental indication for band gap widening of chalcopyrite solar cell absorbers after potassium fluoride treatment. Applied Physics Letters, 2014, 105, .	1.5	105
142	Combined Raman scattering/photoluminescence analysis of Cu(In,Ga)Se2 electrodeposited layers. Solar Energy, 2014, 103, 89-95.	2.9	16
143	Microscopic mobilities and cooling dynamics of photoexcited carriers in polycrystalline CuInSe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 89, .	1.1	14
144	Real-time observation of Cu2ZnSn(S,Se)4 solar cell absorber layer formation from nanoparticle precursors. Physical Chemistry Chemical Physics, 2013, 15, 18281.	1.3	86

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145	Effect of sodium on material and device quality in low temperature deposited Cu(In,Ga)Se2. Solar Energy Materials and Solar Cells, 2013, 119, 281-286.	3.0	32
146	Soft X-rays shedding light on thin-film solar cell surfaces and interfaces. Journal of Electron Spectroscopy and Related Phenomena, 2013, 190, 47-53.	0.8	7
147	Phototransistor effects in Cu(In,Ga)Se2 solar cells. Thin Solid Films, 2013, 535, 275-278.	0.8	20
148	Generation-dependent charge carrier transport in Cu(In,Ga)Se2/CdS/ZnO thin-film solar-cells. Journal of Applied Physics, 2013, 113, 044515.	1.1	47
149	Compositionally Tunable Photoluminescence Emission in Cu₂ZnSn(S_{1â”’x}Se_x)₄ Nanocrystals. Angewandte Chemie - International Edition, 2013, 52, 9120-9124.	7.2	98
150	Numerical simulation of cross section electron-beam induced current in thin-film solar-cells for low and high injection conditions. Journal of Applied Physics, 2013, 114, 134504.	1.1	33
151	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.	10.2	37
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