

Matthew R Young

List of Publications by Year in descending order

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46
papers

1,289
citations

471509

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414414

32
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48
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docs citations

48
times ranked

1974
citing authors

#	ARTICLE	IF	CITATIONS
1	Potential-induced degradation of Cu(In,Ga)Se ₂ can occur by shunting the front i-ZnO and by damaging the p-n junction. Solar Energy, 2022, 232, 298-303.	6.1	4
2	Improvement of front-junction GaInP by point-defect injection and annealing. , 2021, , .		5
3	Inverted metamorphic GaInAs solar cell grown by dynamic hydride vapor phase epitaxy. Applied Physics Letters, 2021, 119, .	3.3	4
4	Dopant Diffusion Control for Improved Tandem Cells Grown by D-HVPE. IEEE Journal of Photovoltaics, 2021, 11, 1251-1255.	2.5	3
5	Hydrogenation Mechanisms of Poly- ϵ -Si/SiO ₂ Passivating Contacts by Different Capping Layers. Solar Rrl, 2020, 4, 1900476.	5.8	13
6	Templated Growth of Metastable Polymorphs on Amorphous Substrates with Seed Layers. Physical Review Applied, 2020, 13, .	3.8	7
7	Hydrogenation Mechanisms of Poly- ϵ -Si/SiO ₂ Passivating Contacts by Different Capping Layers. Solar Rrl, 2020, 4, 2070033.	5.8	10
8	Six-junction III-V solar cells with 47.1% conversion efficiency under 143% \times Suns concentration. Nature Energy, 2020, 5, 326-335.	39.5	408
9	GaAs solar cells grown on intentionally contaminated GaAs substrates. Journal of Crystal Growth, 2020, 541, 125668.	1.5	6
10	GaAs solar cells grown on intentionally contaminated GaAs substrates. , 2020, , .		0
11	Electron scattering mechanisms in polycrystalline sputtered zinc tin oxynitride thin films. Journal of Applied Physics, 2019, 126, 035701.	2.5	13
12	Potential-Induced Degradation Depends on Leakage Current and Light/Electrical Bias in Cu(In,Ga)Se ₂ Devices. IEEE Journal of Photovoltaics, 2019, 9, 1852-1856.	2.5	10
13	Hydrogen-Assisted Defect Engineering of Doped Poly-Si Films for Passivating Contact Solar Cells. ACS Applied Energy Materials, 2019, 2, 8783-8791.	5.1	12
14	Internal Resistive Barriers Related to Zinc Diffusion During the Growth of Inverted Metamorphic Multijunction Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 167-173.	2.5	14
15	Improvement of Short-Circuit Current Density in GaInP Solar Cells Grown by Dynamic Hydride Vapor Phase Epitaxy. IEEE Journal of Photovoltaics, 2018, 8, 1616-1620.	2.5	8
16	Six-junction concentrator solar cells. AIP Conference Proceedings, 2018, , .	0.4	21
17	Potential-Induced Degradation of Cu(In,Ga)Se ₂ Solar Cells: Alkali Metal Drift and Diffusion Effects. IEEE Journal of Photovoltaics, 2018, 8, 1337-1342.	2.5	25
18	Conduction band position tuning and Ga-doping in (Cd,Zn)S alloy thin films. Materials Chemistry Frontiers, 2017, 1, 1342-1348.	5.9	6

#	ARTICLE	IF	CITATIONS
19	Effects of Hydrogen on Acceptor Activation in Ternary Nitride Semiconductors. <i>Advanced Electronic Materials</i> , 2017, 3, 1600544.	5.1	56
20	Upright and Inverted Single-Junction GaAs Solar Cells Grown by Hydride Vapor Phase Epitaxy. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 157-161.	2.5	36
21	Notice of Removal Upright and inverted single junction GaAs solar cells grown by hydride vapor phase epitaxy. , 2017, , .		1
22	Plasma immersion ion implantation for interdigitated back passivated contact (IBPC) solar cells. , 2016, , .		1
23	Investigation of Sb-containing precursors for Cu(In, Ga)Se ₂ thin films through design of experiments. , 2016, , .		0
24	The impact of sodium contamination in tin sulfide thin-film solar cells. <i>APL Materials</i> , 2016, 4, .	5.1	23
25	Combinatorial In Situ Photoelectron Spectroscopy Investigation of Sb ₂ Se ₃ /ZnS Heterointerfaces. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600755.	3.7	28
26	Exploration of Metal Chloride Uptake for Improved Performance Characteristics of PbSe Quantum Dot Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2892-2899.	4.6	43
27	Heteroepitaxial growth of CZTS. , 2014, , .		1
28	Post-deposition processing options for high-efficiency sputtered CdS/CdTe solar cells. <i>Journal of Applied Physics</i> , 2014, 115, 064502.	2.5	38
29	Investigation of combinatorial coevaporated thin film Cu ₂ ZnSnS ₄ . I. Temperature effect, crystalline phases, morphology, and photoluminescence. <i>Journal of Applied Physics</i> , 2014, 115, .	2.5	44
30	Tetrahedrally coordinated disordered Cu ₂ SnS ₃ â€“Cu ₂ ZnSnS ₄ â€“ZnS alloys with tunable optical and electronic properties. <i>Solar Energy Materials and Solar Cells</i> , 2014, 129, 124-131.	6.2	12
31	Electrical Characterization of Cu Composition Effects in CdS/CdTe Thin-Film Solar Cells With a ZnTe:Cu Back Contact. <i>IEEE Journal of Photovoltaics</i> , 2013, 3, 1095-1099.	2.5	28
32	Charge carrier dynamics and recombination in graded band gap CuIn _{1-x} Ga _x Se ₂ polycrystalline thin-film photovoltaic solar cell absorbers. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	37
33	Spectrally and time resolved photoluminescence analysis of the CdS/CdTe interface in thin-film photovoltaic solar cells. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	35
34	Effects of sodium incorporation in Co-evaporated Cu ₂ ZnSnSe ₄ thin-film solar cells. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	125
35	Rapid fabrication of Cu(In, Ga)Se ₂ thin films from Se-containing precursors by the two-step selenization process. , 2013, , .		1
36	Electrical characterization of Cu composition effects in CdS/CdTe thin-film solar cells with a ZnTe:Cu back contact. , 2013, , .		0

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37	Rapid fabrication of Cu(In,Ga)Se ₂ thin films by the two-step selenization process. , 2013, , .		0
38	Rapid fabrication of Cu(In,Ga)Se ₂ thin films by the two-step selenization process. , 2012, , .		0
39	Electrical characterization of Cu composition effects in CdS/CdTe thin-film solar cells with a ZnTe:Cu back contact. , 2012, , .		2
40	Optical-fiber-based, time-resolved photoluminescence spectrometer for thin-film absorber characterization and analysis of TRPL data for CdS/CdTe interface. , 2012, , .		21
41	Phase identification and control of thin films deposited by co-evaporation of elemental Cu, Zn, Sn, and Se. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2012, 30, .	2.1	62
42	Sodium-doped molybdenum targets for controllable sodium incorporation in CIGS solar cells. , 2011, , .		15
43	Density profiles in sputtered molybdenum thin films and their effects on sodium diffusion in Cu(In _x Ga _{1-x})Se ₂ photovoltaics. , 2011, , .		3
44	Effects of back-contacting method and temperature on CdTe/CdS solar cells. , 2010, , .		14
45	Hydrogen diffusion in silicon from plasma-enhanced chemical vapor deposited silicon nitride film at high temperature. Applied Physics Letters, 2008, 92, .	3.3	37
46	Transparent conducting zinc oxide thin films doped with aluminum and molybdenum. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 955-960.	2.1	52