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List of Publications by Year
in descending order

52 papers	1,286 citations	567281 15 h-index	477307 29 g-index
52 all docs	52 docs citations	52 times ranked	1504 citing authors

#	Article	IF	Citations
1	Accurate Efficiency Measurements for Emerging PV: A Comparison of NREL's Steady-State Performance Calibration Protocol Between Conventional and Emerging PV Technologies. , 2019, , .		2
2	Historical Analysis of Champion Photovoltaic Module Efficiencies. IEEE Journal of Photovoltaics, 2018, 8, 363-372.	2.5	37
3	Quantitative Study of the Effect of Non-Uniform Irradiance on Module Performance Combining EL and DLIT Imaging with Circuit Modeling. , 2018, , .		0
4	Apparent bandgap shift in the internal quantum efficiency for solar cells with back reflectors. Journal of Applied Physics, 2017, 121, .	2.5	18
5	Metastable defect response in CZTSSe from admittance spectroscopy. Applied Physics Letters, 2017, 111, 142105.	3.3	15
6	Locating the electrical junctions in Cu(In,Ga)Se₂ and Cu₂ZnSnSe₄ solar cells by scanning capacitance spectroscopy. Progress in Photovoltaics: Research and Applications, 2017, 25, 33-40.	8.1	10
7	NREL's Cell and Module Performance group's asymptotic Pmax protocol for perovskite devices. , 2017, , .		7
8	Determination of the electrical junction in Cu(In, Ga)Se<inf>2</inf> and Cu<inf>2</inf>ZnSnSe<inf>4</inf> solar cells with 20-nm spatial resolution. , 2016, , .		0
9	Development of lattice-matched 1.7 eV GaInAsP solar cells grown on GaAs by MOVPE. , 2016, , .		10
10	Beneficial effect of post-deposition treatment in high-efficiency Cu(In,Ga)Se2 solar cells through reduced potential fluctuations. Journal of Applied Physics, 2016, 120, .	2.5	75
11	Admittance spectroscopy in CZTSSe: Metastability behavior and voltage dependent defect study. , 2016, , .		1
12	Photoluminescence excitation spectroscopy characterization of cadmium telluride solar cells. , 2016, , .		3
13	Development of Two-photon excitation time-resolved photoluminescence microscopy for lifetime and defect imaging in thin film photovoltaic materials and devices. , 2015, , .		4
14	Development of scanning capacitance spectroscopy of CIGS solar cells. , 2015, , .		2
15	Minority carrier lifetimes in 1.0-eV p-In<inf>0.27</inf>Ga<inf>0.73</inf>As layers grown on GaAs substrates. , 2014, , .		0
16	The role of drift, diffusion, and recombination in timeâ€resolved photoluminescence of CdTe solar cells determined through numerical simulation. Progress in Photovoltaics: Research and Applications, 2014, 22, 1138-1146.	8.1	89
17	Charge carrier dynamics and recombination in graded band gap CuIn1â^'xGaxSe2 polycrystalline thin-film photovoltaic solar cell absorbers. Journal of Applied Physics, 2013, 114, .	2.5	37
18	Optical properties of Zn(O,S) thin films deposited by RF sputtering, atomic layer deposition, and chemical bath deposition. , 2012, , .		0

#	Article	IF	Citations
19	Precise determination ofÂoptical properties ofÂpentacene thin films grown on various substrates: Gaussâ€“Lorentz model with effective medium approach. Applied Physics B: Lasers and Optics, 2011, 104, 1139-1144.	2.2	5
20	Above-band-gap dielectric functions of ZnGeAs<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>: Ellipsometric measurements and quasiparticle self-consistent<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvarian	3.2	10
21	Density profiles in sputtered molybdenum thin films and their effects on sodium diffusion in Cu(In<inf>x</inf>Ga<inf>1−x</inf>)Se<inf>2</inf> photovoltaics. , 2011, , .		3
22	Effects of substrate temperature on the optical properties of polycrystalline CuInSe<inf>2</inf> thin films. , 2010, , .		1
23	RF-sputtered ITO and ITO:Zr studied by in situ spectroscopic ellipsometry. , 2010, , .		1
24	Ellipsometric study of single-crystal Î³-InSe from 1.5 to 9.2 eV. Applied Physics Letters, 2010, 96, 181902.	3.3	13
25	Complex dielectric function and refractive index spectra of epitaxial CdO thin film grown on r-plane sapphire from 0.74 to 6.45 eV. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 1120-1124.	1.2	21
26	Recombination kinetics and stability in polycrystalline Cu(In,Ga)Se2 solar cells. Thin Solid Films, 2009, 517, 2360-2364.	1.8	164
27	Above-bandgap ordinary optical properties of GaSe single crystal. Journal of Applied Physics, 2009, 106, .	2.5	31
28	Materials Optimization for Silicon Heterojunction Solar Cells Using Spectroscopic Ellipsometry. Materials Research Society Symposia Proceedings, 2007, 989, 4.	0.1	0
29	Optical characterization of highly conductive single-wall carbon-nanotube transparent electrodes. Physical Review B, 2007, 75, .	3.2	77
30	Silicon Heterojunction Solar Cell Characterization and Optimization using in Situ and Ex Situ Spectroscopic Ellipsometry. , 2006, , .		3
31	Comment on â€œOptical characterization of CuIn1â^'xGaxSe2 alloy thin films by spectroscopic ellipsometryâ€•[J. Appl. Phys. 94, 879 (2003)]. Journal of Applied Physics, 2006, 100, 096102.	2.5	2
32	Effect of Cu deficiency on the optical properties and electronic structure of CuIn1â^'xGaxSe2 (x = 0,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.4	0
33	Materials and Interface Optimization of Heterojunction Silicon (HIT) Solar Cells Using in-situ Real-Time Spectroscopic Ellipsometry. Materials Research Society Symposia Proceedings, 2004, 808, 419.	0.1	6
34	Physical characterization of thin-film solar cells. Progress in Photovoltaics: Research and Applications, 2004, 12, 177-217.	8.1	80
35	Effect of Cu deficiency on the optical properties and electronic structure of CuInSe2 and CuIn0.8Ga0.2Se2 determined by spectroscopic ellipsometry. Applied Physics Letters, 2004, 85, 576-578.	3.3	35
36	Time-resolved photoluminescence studies of CdTe solar cells. Journal of Applied Physics, 2003, 94, 3549-3555.	2.5	177

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37	In situ studies of the amorphous to microcrystalline transition of hot-wire chemical vapor deposition Si:H films using real-time spectroscopic ellipsometry. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1545-1549.	2.1	5
38	Influence of surface composition on back-contact performance in CdTe/CdS PV devices. Progress in Photovoltaics: Research and Applications, 2000, 8, 591-602.	8.1	19
39	Effect and optimization of CdS/CdTe interdiffusion on CdTe electrical properties and CdS/CdTe cell performance. , 1999, , .		1
40	Electrical characterization of etched grain-boundary properties from as-processed px-CdTe-based solar cells. , 1999, , .		10
41	Investigation of induced recrystallization and stress in close-spaced sublimated and radio-frequency magnetron sputtered CdTe thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 1793-1798.	2.1	69
42	Effects of CdCl2 treatment on the recrystallization and electro-optical properties of CdTe thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 1251-1257.	2.1	177
43	Novel method for growing CdS on CdTe surfaces for passivation of surface states and heterojunction formation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 1119-1123.	2.1	13
44	Understanding The Role Of Defects In Limiting The Minority Carrier Lifetime In Sic. Materials Research Society Symposia Proceedings, 1997, 483, 197.	0.1	13
45	Sulfur Diffusion In Polycrystalline Thin-Film CdTe Solar Cells. Materials Research Society Symposia Proceedings, 1997, 485, 203.	0.1	4
46	Effects of Back Contact Treatments on Junction Photoluminescence in CdTe/CdS Solar Cells. Materials Research Society Symposia Proceedings, 1997, 485, 209.	0.1	0
47	Interface Reactions in CdTe Solar Cell Processing. Materials Research Society Symposia Proceedings, 1997, 485, 215.	0.1	5
48	Tin oxide stability effectsâ€"their identification, dependence on processing and impacts on CdTe/CdS solar cell performance. AIP Conference Proceedings, 1997, , .	0.4	5
49	Processing and characterization of largeâ€grain thinâ€film CdTe. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2803-2807.	2.1	13
50	Comparison study of close-spaced sublimated and chemical bath deposited CdS films: effects on CdTe solar cells. , 0, , .		3
51	Characterization of layer thickness and interdiffusion in CdTe/CdS/ZTO/CTO solar cells. , 0, , .		1
52	Precontact surface chemistry effects on CdS/CdTe solar cell performance and stability. , 0, , .		9