Miro Zeman

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3214273/publications.pdf

Version: 2024-02-01

364	9,420	57631	62479
papers	citations	44 h-index	80 g-index

365	365	365	8378
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Efficient solar water splitting by enhanced charge separation in a bismuth vanadate-silicon tandem photoelectrode. Nature Communications, 2013, 4, 2195.	5.8	1,137
2	Plasmonic Light Trapping in Thin-film Silicon Solar Cells with Improved Self-Assembled Silver Nanoparticles. Nano Letters, 2012, 12, 4070-4076.	4.5	395
3	System design for a solar powered electric vehicle charging station for workplaces. Applied Energy, 2016, 168, 434-443.	5.1	326
4	Amorphous and Microcrystalline Silicon Solar Cells: Modeling, Materials and Device Technology. , 1998, , .		236
5	Optical modeling of a-Si:H solar cells with rough interfaces: Effect of back contact and interface roughness. Journal of Applied Physics, 2000, 88, 6436-6443.	1.1	232
6	Effect of surface roughness of ZnO:Al films on light scattering in hydrogenated amorphous silicon solar cells. Thin Solid Films, 2003, 426, 296-304.	0.8	215
7	Efficient Waterâ€Splitting Device Based on a Bismuth Vanadate Photoanode and Thinâ€Film Silicon Solar Cells. ChemSusChem, 2014, 7, 2832-2838.	3.6	149
8	Minimizing optical losses in monolithic perovskite/c-Si tandem solar cells with a flat top cell. Optics Express, 2016, 24, A1288.	1.7	124
9	Modulated surface textures for enhanced light trapping in thin-film silicon solar cells. Applied Physics Letters, 2010, 97, .	1.5	121
10	Optical modeling ofa-Si:H solar cells deposited on textured glass/SnO2 substrates. Journal of Applied Physics, 2002, 92, 749-755.	1.1	106
11	Computer modelling of current matching in a-Si : H/a-Si : H tandem solar cells on textured TCO substrates. Solar Energy Materials and Solar Cells, 1997, 46, 81-99.	3.0	103
12	GenPro4 Optical Model for Solar Cell Simulation and Its Application to Multijunction Solar Cells. IEEE Journal of Photovoltaics, 2017, 7, 919-926.	1.5	98
13	Experimental Demonstration of 4n² Classical Absorption Limit in Nanotextured Ultrathin Solar Cells with Dielectric Omnidirectional Back Reflector. ACS Photonics, 2014, 1, 270-278.	3.2	97
14	Optical and electrical modeling of thin-film silicon solar cells. Journal of Materials Research, 2008, 23, 889-898.	1.2	87
15	ZnO:Al films prepared by rf magnetron sputtering applied as back reflectors in thin-film silicon solar cells. Thin Solid Films, 2008, 516, 7844-7850.	0.8	83
16	IBC c-Si solar cells based on ion-implanted poly-silicon passivating contacts. Solar Energy Materials and Solar Cells, 2016, 158, 84-90.	3.0	82
17	Modelling of thin-film silicon solar cells. Solar Energy Materials and Solar Cells, 2013, 119, 94-111.	3.0	81
18	Nanoâ€cones on microâ€pyramids: modulated surface textures for maximal spectral response and highâ€efficiency solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 1649-1659.	4.4	77

#	Article	IF	Citations
19	Influence of ITO deposition and post annealing on HIT solar cell structures. Energy Procedia, 2011, 8, 207-213.	1.8	76
20	Design and fabrication of a SiOx/ITO double-layer anti-reflective coating for heterojunction silicon solar cells. Solar Energy Materials and Solar Cells, 2013, 117, 132-138.	3.0	75
21	Extracting large photovoltages from a-SiC photocathodes with an amorphous TiO₂ front surface field layer for solar hydrogen evolution. Energy and Environmental Science, 2015, 8, 1585-1593.	15.6	74
22	Application of plasmonic silver island films in thin-film silicon solar cells. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.0	73
23	A scattering model for nano-textured interfaces and its application in opto-electrical simulations of thin-film silicon solar cells. Journal of Applied Physics, 2012, 111, .	1.1	73
24	Design and Comparison of a 10-kW Interleaved Boost Converter for PV Application Using Si and SiC Devices. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2017, 5, 610-623.	3.7	72
25	Wide bandgap p-type nanocrystalline silicon oxide as window layer for high performance thin-film silicon multi-junction solar cells. Solar Energy Materials and Solar Cells, 2015, 132, 597-605.	3.0	71
26	Optical model for multilayer structures with coherent, partly coherent and incoherent layers. Optics Express, 2013, 21, A262.	1.7	69
27	Estimating battery lifetimes in Solar Home System design using a practical modelling methodology. Applied Energy, 2018, 228, 1629-1639.	5.1	69
28	A simplified skyline-based method for estimating the annual solar energy potential in urban environments. Nature Energy, 2019, 4, 206-215.	19.8	68
29	3â€Ð optical modeling of thinâ€ffilm silicon solar cells on diffraction gratings. Progress in Photovoltaics: Research and Applications, 2013, 21, 94-108.	4.4	65
30	Performance of spray-deposited ZnO:In layers as front electrodes in thin-film silicon solar cells. Solar Energy Materials and Solar Cells, 2008, 92, 884-890.	3.0	63
31	Micro-textures for efficient light trapping and improved electrical performance in thin-film nanocrystalline silicon solar cells. Applied Physics Letters, 2013, 103, .	1.5	63
32	Microstructure of hydrogenated silicon thin films prepared from silane diluted with hydrogen. Applied Surface Science, 2008, 254, 3690-3695.	3.1	62
33	First-principles study of hydrogenated amorphous silicon. Physical Review B, 2009, 79, .	1.1	61
34	Improved light trapping in microcrystalline silicon solar cells by plasmonic back reflector with broad angular scattering and low parasitic absorption. Applied Physics Letters, 2013, 102, .	1.5	58
35	Theoretical evaluation of contact stack for high efficiency IBC-SHJ solar cells. Solar Energy Materials and Solar Cells, 2018, 186, 66-77.	3.0	58
36	Influence of interface morphologies on amorphous silicon thin film solar cells prepared on randomly textured substrates. Solar Energy Materials and Solar Cells, 2013, 112, 182-189.	3.0	56

#	Article	IF	Citations
37	Modulated surface textures using zincâ€oxide films for solar cells applications. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 642-646.	0.8	55
38	Determination of the mobility gap of intrinsic Î¼c-Si:H in p-i-n solar cells. Journal of Applied Physics, 2009, 105, 044502.	1.1	53
39	Thin-film silicon-based quadruple junction solar cells approaching 20% conversion efficiency. Solar Energy Materials and Solar Cells, 2014, 129, 82-89.	3.0	53
40	A scattering model for surface-textured thin films. Applied Physics Letters, 2009, 95, .	1.5	52
41	Comparison of system architecture and converter topology for a solar powered electric vehicle charging station. , 2015, , .		52
42	Harvesting Roadway Solar Energyâ€"Performance of the Installed Infrastructure Integrated PV Bike Path. IEEE Journal of Photovoltaics, 2018, 8, 1066-1073.	1.5	50
43	The impact of alkali elements on the degradation of CIGS solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 537-545.	4.4	49
44	Design and application of ion-implanted polySi passivating contacts for interdigitated back contact c-Si solar cells. Applied Physics Letters, 2016, 108, .	1.5	49
45	Modulated photonic-crystal structures as broadband back reflectors in thin-film solar cells. Applied Physics Letters, 2009, 94, 153501.	1.5	46
46	Highly transparent modulated surface textured front electrodes for highâ€efficiency multijunction thinâ€film silicon solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 949-963.	4.4	46
47	Accurate generation rate profiles in a-Si :H solar cells with textured TCO substrates. Solar Energy Materials and Solar Cells, 1994, 34, 359-366.	3.0	44
48	Quadruple-junction thin-film silicon-based solar cells with high open-circuit voltage. Applied Physics Letters, 2014, 105, 063902.	1.5	44
49	Influence of transparent conductive oxides on passivation of a-Si:H/c-Si heterojunctions as studied by atomic layer deposited Al-doped ZnO. Semiconductor Science and Technology, 2014, 29, 122001.	1.0	44
50	Implementation of dynamic charging and V2G using Chademo and CCS/Combo DC charging standard. , 2016, , .		44
51	The role of heterointerfaces and subgap energy states on transport mechanisms in silicon heterojunction solar cells. Progress in Photovoltaics: Research and Applications, 2020, 28, 935-945.	4.4	44
52	Optimal design of periodic surface texture for thinâ€film aâ€Si:H solar cells. Progress in Photovoltaics: Research and Applications, 2010, 18, 160-167.	4.4	43
53	Physical and chemical degradation behavior of sputtered aluminum doped zinc oxide layers for Cu(In,Ga)Se2 solar cells. Thin Solid Films, 2014, 550, 530-540.	0.8	43
54	Doped hydrogenated nanocrystalline silicon oxide layers for highâ€efficiency câ€Si heterojunction solar cells. Progress in Photovoltaics: Research and Applications, 2020, 28, 425-435.	4.4	42

#	Article	IF	Citations
55	Advanced Light Management Approaches for Thin-Film Silicon Solar Cells. Energy Procedia, 2012, 15, 189-199.	1.8	40
56	New Insights in the Nanostructure and Defect States of Hydrogenated Amorphous Silicon Obtained by Annealing. IEEE Journal of Photovoltaics, 2013, 3, 65-71.	1.5	40
57	Optimization of amorphous silicon double junction solar cells for an efficient photoelectrochemical water splitting device based on a bismuth vanadate photoanode. Physical Chemistry Chemical Physics, 2014, 16, 4220-4229.	1.3	40
58	Advanced light trapping scheme in decoupled front and rear textured thin-film silicon solar cells. Solar Energy, 2018, 162, 344-356.	2.9	40
59	Exploring the boundaries of Solar Home Systems (SHS) for off-grid electrification: Optimal SHS sizing for the multi-tier framework for household electricity access. Applied Energy, 2019, 240, 907-917.	5.1	40
60	A quick-scan method to assess photovoltaic rooftop potential based on aerial imagery and LiDAR. Solar Energy, 2020, 209, 96-107.	2.9	40
61	Formation of thin-film crystalline silicon on glass observed by in-situ XRD. Energy Procedia, 2010, 2, 235-241.	1.8	38
62	A thin-film silicon based photocathode with a hydrogen doped TiO₂ protection layer for solar hydrogen evolution. Journal of Materials Chemistry A, 2016, 4, 16841-16848.	5.2	38
63	Poly-crystalline silicon-oxide films as carrier-selective passivating contacts for c-Si solar cells. Applied Physics Letters, 2018, 112, .	1.5	38
64	Relation between the open-circuit voltage and the band gap of absorber and buffer layers in a-Si:H solar cells. Thin Solid Films, 2008, 516, 6873-6876.	0.8	36
65	Raman study of laser-induced heating effects in free-standing silicon nanocrystals. Nanoscale, 2015, 7, 8389-8397.	2.8	36
66	Highly Efficient Hybrid Polymer and Amorphous Silicon Multijunction Solar Cells with Effective Optical Management. Advanced Materials, 2016, 28, 2170-2177.	11.1	36
67	Origin of charged gap states ina-Si:H and their evolution during light soaking. Physical Review B, 2004, 69, .	1.1	35
68	The AM1.5 absorption factor of thin-film solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 715-723.	3.0	35
69	Fullâ€wave optoelectrical modeling of optimized flattened lightâ€scattering substrate for high efficiency thinâ€film silicon solar cells. Progress in Photovoltaics: Research and Applications, 2014, 22, 671-689.	4.4	35
70	Gradient dopant profiling and spectral utilization of monolithic thin-film silicon photoelectrochemical tandem devices for solar water splitting. Journal of Materials Chemistry A, 2015, 3, 4155-4162.	5.2	35
71	Stochastic load profile construction for the multi-tier framework for household electricity access using off-grid DC appliances. Energy Efficiency, 2020, 13, 197-215.	1.3	35
72	Advanced Numerical Simulation Tool for Solar Cells - ASA5. , 2006, , .		34

#	Article	IF	Citations
73	The effect of composition on the bond structure and refractive index of silicon nitride deposited by HWCVD and PECVD. Thin Solid Films, 2009, 517, 3499-3502.	0.8	33
74	Growth of ZnO :Al by high-throughput CVD at atmospheric pressure. Journal of Crystal Growth, 2012, 347, 56-61.	0.7	33
75	Opto-electrical modelling and optimization study of a novel IBC c-Si solar cell. Progress in Photovoltaics: Research and Applications, 2017, 25, 452-469.	4.4	33
76	High-efficiency black IBC c-Si solar cells with poly-Si as carrier-selective passivating contacts. Solar Energy Materials and Solar Cells, 2018, 186, 9-13.	3.0	33
77	Photovoltatronics: intelligent PV-based devices for energy and information applications. Energy and Environmental Science, 2021, 14, 106-126.	15.6	33
78	Optical modelling of thin-film silicon solar cells deposited on textured substrates. Thin Solid Films, 2004, 451-452, 298-302.	0.8	32
79	Analysis of hydrogenated amorphous silicon thin films and solar cells by means of Fourier Transform Photocurrent Spectroscopy. Thin Solid Films, 2008, 516, 6877-6881.	0.8	32
80	Design and application of dielectric distributed Bragg back reflector in thin-film silicon solar cells. Journal of Non-Crystalline Solids, 2012, 358, 2295-2298.	1.5	32
81	Advanced light management based on periodic textures for Cu(In,Ga)Se_2 thin-film solar cells. Optics Express, 2016, 24, A693.	1.7	32
82	New developments in amorphous thin-film silicon solar cells. IEEE Transactions on Electron Devices, 1999, 46, 2086-2092.	1.6	31
83	Modeling and optimization of white paint back reflectors for thin-film silicon solar cells. Journal of Applied Physics, 2010, 108, 103115.	1.1	31
84	Angular resolved scattering measurements of nano-textured substrates in a broad wavelength range. Measurement Science and Technology, 2011, 22, 105601.	1.4	30
85	Plasmonic silicon solar cells: impact of material quality and geometry. Optics Express, 2013, 21, A786.	1.7	30
86	Optimization of Three-Terminal Perovskite/Silicon Tandem Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 446-451.	1.5	30
87	Structural properties of amorphous silicon prepared from hydrogen-diluted silane. Philosophical Magazine, 2009, 89, 2435-2448.	0.7	29
88	Plasmonic Nanoparticle Films for Solar Cell Applications Fabricated by Size-selective Aerosol Deposition. Energy Procedia, 2014, 60, 3-12.	1.8	29
89	The Staebler-Wronski Effect: New Physical Approaches and Insights as a Route to Reveal its Origin. Materials Research Society Symposia Proceedings, 2010, 1245, 1.	0.1	28
90	The Relation Between the Bandgap and the Anisotropic Nature of Hydrogenated Amorphous Silicon. IEEE Journal of Photovoltaics, 2012, 2, 94-98.	1.5	28

#	Article	IF	Citations
91	Optical optimization of a multi-layer wideband anti-reflection coating using porous MgF2 for sub-micron-thick CIGS solar cells. Solar Energy, 2019, 177, 59-67.	2.9	28
92	Determination of the temperature dependency of the electrical parameters of CIGS solar cells. Journal of Renewable and Sustainable Energy, 2017, 9, .	0.8	27
93	Silicon Solar Cell Architecture with Front Selective and Rear Full Area Ionâ€implanted Passivating Contacts. Solar Rrl, 2017, 1, 1700040.	3.1	27
94	A comprehensive albedo model for solar energy applications: Geometric spectral albedo. Applied Energy, 2019, 255, 113867.	5.1	27
95	Advanced Amorphous Silicon Solar Cell Technologies. , 2006, , 173-236.		26
96	Analysis of structure and defects in thin silicon films deposited from hydrogen diluted silane. Thin Solid Films, 2006, 511-512, 252-257.	0.8	26
97	The role of oxide interlayers in back reflector configurations for amorphous silicon solar cells. Journal of Applied Physics, 2013, 113, .	1.1	26
98	The Nature and the Kinetics of Light-Induced Defect Creation in Hydrogenated Amorphous Silicon Films and Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 1331-1336.	1.5	26
99	Modelling and optimization of a-Si:H solar cells with ZnO:Al back reflector. Solar Energy Materials and Solar Cells, 2010, 94, 2119-2123.	3.0	25
100	Light scattering properties of surfaceâ€textured substrates. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 945-948.	0.8	25
101	Optical modeling of thin-film silicon solar cells with submicron periodic gratings and nonconformal layers. Energy Procedia, 2011, 10, 308-312.	1.8	25
102	Combined Optical and Electrical Design of Plasmonic Back Reflector for High-Efficiency Thin-Film Silicon Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 53-58.	1.5	25
103	Designing optimized nano textures for thin-film silicon solar cells. Optics Express, 2013, 21, A656.	1.7	25
104	Fabrication of double- and triple-junction solar cells with hydrogenated amorphous silicon oxide (a-SiOx:H) top cell. Solar Energy Materials and Solar Cells, 2015, 141, 148-153.	3.0	25
105	Extraction of optical properties of flat and surface-textured transparent conductive oxide films in a broad wavelength range. Thin Solid Films, 2011, 520, 1096-1101.	0.8	24
106	Enhancing the driving field for plasmonic nanoparticles in thin-film solar cells. Optics Express, 2014, 22, A1023.	1.7	24
107	Accurate opto-electrical modeling of multi-crystalline silicon wafer-based solar cells. Solar Energy Materials and Solar Cells, 2014, 123, 17-29.	3.0	24
108	In situ manipulation of the sub gap states in hydrogenated amorphous silicon monitored by advanced application of Fourier transform photocurrent spectroscopy. Solar Energy Materials and Solar Cells, 2014, 129, 70-81.	3.0	24

#	Article	IF	Citations
109	The impact of atmospheric species on the degradation of CIGS solar cells. Solar Energy Materials and Solar Cells, 2015, 141, 49-56.	3.0	24
110	Constructing Accurate Equivalent Electrical Circuit Models of Lithium Iron Phosphate and Leadâ€“Acid Battery Cells for Solar Home System Applications. Energies, 2018, 11, 2305.	1.6	24
111	Optical Enhancement of Silicon Heterojunction Solar Cells With Hydrogenated Amorphous Silicon Carbide Emitter. IEEE Journal of Photovoltaics, 2014, 4, 1326-1330.	1.5	23
112	Surface passivation of c-Si for silicon heterojunction solar cells using high-pressure hydrogen diluted plasmas. AIP Advances, 2015, 5, 097165.	0.6	23
113	Modulated surface textured glass as substrate for high efficiency microcrystalline silicon solar cells. Solar Energy Materials and Solar Cells, 2015, 133, 156-162.	3.0	23
114	Room-temperature sputtered tungsten-doped indium oxide for improved current in silicon heterojunction solar cells. Solar Energy Materials and Solar Cells, 2021, 227, 111082.	3.0	23
115	Simulation study of the electrical yield of various PV module topologies in partially shaded urban scenarios. Solar Energy, 2021, 225, 726-733.	2.9	23
116	Atomistic models of hydrogenated amorphous silicon nitride from first principles. Physical Review B, 2010, 82, .	1.1	22
117	Angular resolved scattering by a nano-textured ZnO/silicon interface. Applied Physics Letters, 2011, 99, 111107.	1.5	22
118	The nanostructural analysis of hydrogenated silicon films based on positron annihilation studies. Journal of Non-Crystalline Solids, 2012, 358, 2015-2018.	1.5	22
119	Economic and CO2 Emission Benefits of a Solar Powered Electric Vehicle Charging Station for Workplaces in the Netherlands. , 2016, , .		22
120	Simplified process for high efficiency, self-aligned IBC c-Si solar cells combining ion implantation and epitaxial growth: Design and fabrication. Solar Energy Materials and Solar Cells, 2016, 157, 354-365.	3.0	22
121	Advanced Light Trapping in Thin-film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2010, 1245, 1.	0.1	21
122	Influence of the atmospheric species water, oxygen, nitrogen and carbon dioxide on the degradation of aluminum doped zinc oxide layers. Thin Solid Films, 2014, 565, 149-154.	0.8	21
123	High pressure processing of hydrogenated amorphous silicon solar cells: Relation between nanostructure and high open-circuit voltage. Applied Physics Letters, 2015, 106, .	1.5	21
124	Quantification of Shading Tolerability for Photovoltaic Modules. IEEE Journal of Photovoltaics, 2017, 7, 1390-1399.	1.5	21
125	Back-contacted BaSi_2 solar cells: an optical study. Optics Express, 2017, 25, A402.	1.7	21
126	High-Mobility Hydrogenated Fluorine-Doped Indium Oxide Film for Passivating Contacts c-Si Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 45586-45595.	4.0	21

#	Article	IF	Citations
127	A fully reconfigurable series-parallel photovoltaic module for higher energy yields in urban environments. Renewable Energy, 2021, 179, 1-11.	4.3	21
128	Implantationâ€based passivating contacts for crystalline silicon front/rear contacted solar cells. Progress in Photovoltaics: Research and Applications, 2020, 28, 403-416.	4.4	21
129	Thin-Film Silicon PV Technology. Journal of Electrical Engineering, 2010, 61, 271-276.	0.4	20
130	Wet-chemical Treatment for Improved Surface Passivation of Textured Silicon Heterojunction Solar Cells. Energy Procedia, 2014, 55, 197-202.	1.8	20
131	Influence of deposition pressure and selenisation on damp heat degradation of the Cu(In,Ga)Se2 back contact molybdenum. Surface and Coatings Technology, 2014, 252, 157-167.	2.2	20
132	Structural and electrical properties of metastable defects in hydrogenated amorphous silicon. Physical Review B, 2015, 91, .	1.1	20
133	Development of a-SiO_x:H solar cells with very highV_{oc}â€‰Ã—â€‰FF product. Progress in Photovoltaics: Research and Applications, 2015, 23, 671-684.	4.4	20
134	Quantifying the Benefits of a Solar Home System-Based DC Microgrid for Rural Electrification. Energies, 2019, 12, 938.	1.6	20
135	Numerical Simulations of IBC Solar Cells Based on Poly-Si Carrier-Selective Passivating Contacts. IEEE Journal of Photovoltaics, 2019, 9, 374-384.	1.5	20
136	Design and optimization of hole collectors based on nc-SiO :H for high-efficiency silicon heterojunction solar cells. Solar Energy Materials and Solar Cells, 2021, 219, 110779.	3.0	20
137	Extraction of amorphous silicon solar cell parameters by inverse modelling. Solar Energy Materials and Solar Cells, 1994, 34, 557-563.	3.0	19
138	Thin-film amorphous silicon germanium solar cells with p- and n-type hydrogenated silicon oxide layers. Solar Energy Materials and Solar Cells, 2017, 163, 9-14.	3.0	19
139	Solar cells based on n+-AZO/p-BaSi2 heterojunction: Advanced opto-electrical modelling and experimental demonstration. Solar Energy Materials and Solar Cells, 2021, 230, 111181.	3.0	19
140	Towards bifacial silicon heterojunction solar cells with reduced TCO use. Progress in Photovoltaics: Research and Applications, 2022, 30, 750-762.	4.4	19
141	Analysis of thin-film silicon solar cells with white paint back reflectors. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, NA-NA.	0.8	18
142	Poly-Si(O)x passivating contacts for high-efficiency c-Si IBC solar cells. Energy Procedia, 2017, 124, 392-399.	1.8	18
143	Surface passivation of n-type doped black silicon by atomic-layer-deposited SiO2/Al2O3 stacks. Applied Physics Letters, 2017, 110, .	1.5	18
144	Front and rear contact Si solar cells combining high and low thermal budget Si passivating contacts. Solar Energy Materials and Solar Cells, 2019, 194, 28-35.	3.0	18

#	Article	IF	Citations
145	Effect of Substrate Morphology Slope Distributions on Light Scattering, nc-Si:H Film Growth, and Solar Cell Performance. ACS Applied Materials & Interfaces, 2014, 6, 22061-22068.	4.0	17
146	Understanding the thickness-dependent effective lifetime of crystalline silicon passivated with a thin layer of intrinsic hydrogenated amorphous silicon using a nanometer-accurate wet-etching method. Journal of Applied Physics, 2016, 119, .	1.1	17
147	A thin-film silicon/silicon hetero-junction hybrid solar cell for photoelectrochemical water-reduction applications. Solar Energy Materials and Solar Cells, 2016, 150, 82-87.	3.0	17
148	Oxidation-Induced Structure Transformation: Thin-Film Synthesis and Interface Investigations of Barium Disilicide toward Potential Photovoltaic Applications. ACS Applied Energy Materials, 2018, 1, 3267-3276.	2.5	17
149	Effective Passivation of Black Silicon Surfaces via Plasmaâ€Enhanced Chemical Vapor Deposition Grown Conformal Hydrogenated Amorphous Silicon Layer. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900087.	1.2	17
150	Sub-gap defect density characterization of molybdenum oxide: An annealing study for solar cell applications. Nano Research, 2020, 13, 3416-3424.	5.8	17
151	Device Modeling of a-Si:H Alloy Solar Cells: Calibration Procedure for Determination of Model Input Parameters. Materials Research Society Symposia Proceedings, 1998, 507, 409.	0.1	16
152	Organometallic halide perovskite/barium di-silicide thin-film double-junction solar cells. Proceedings of SPIE, 2016, , .	0.8	16
153	Fast and accurate ray-casting-based view factor estimation method for complex geometries. Solar Energy Materials and Solar Cells, 2019, 200, 109934.	3.0	16
154	Transparent silicon carbide/tunnel SiO₂ passivation for câ€Si solar cell front side: Enabling J_{sc} > 42 mA/cm² and iV_{oc} of 742 mV. Progress in Photovoltaics: Research and Applications, 2020, 28, 321-327.	4.4	16
155	Novel approaches of light management in thin-film silicon solar cells. Materials Research Society Symposia Proceedings, 2006, 910, 1.	0.1	15
156	Hydrogenated amorphous silicon deposited under accurately controlled ion bombardment using pulse-shaped substrate biasing. Journal of Applied Physics, 2010, 108, 103304.	1.1	15
157	A-Si:H solar cells with embedded silver nanoparticles. , 2010, , .		15
158	Thin-Film Silicon Solar Cells on 1-D Periodic Gratings With Nonconformal Layers: Optical Analysis. IEEE Journal of Photovoltaics, 2013, 3, 46-52.	1.5	15
159	Dangling-bond defect in a-Si:H: Characterization of network and strain effects by first-principles calculation of the EPR parameters. Physical Review B, 2013, 87, .	1.1	15
160	Decoupled front/back dielectric textures for flat ultra-thin c-Si solar cells. Optics Express, 2016, 24, A708.	1.7	15
161	Copper-Plating Metallization With Alternative Seed Layers for c-Si Solar Cells Embedding Carrier-Selective Passivating Contacts. IEEE Journal of Photovoltaics, 2020, 10, 372-382.	1.5	15
162	Solar harvesting based on perfect absorbing all-dielectric nanoresonators on a mirror. Optics Express, 2019, 27, A967.	1.7	15

#	Article	IF	Citations
163	Electrical and Optical Modelling of Thin-Film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2007, 989, 1.	0.1	14
164	Thermal ideality factor of hydrogenated amorphous silicon p-i-n solar cells. Journal of Applied Physics, 2011, 110, .	1.1	14
165	The Optical Spectra of a-Si:H and a-SiC:H Thin Films Measured by the Absolute Photothermal Deflection Spectroscopy (PDS). Solid State Phenomena, 0, 213, 19-28.	0.3	14
166	Photoelectrocatalytic oxidation of phenol for water treatment using a BiVO₄ thin-film photoanode. Journal of Materials Research, 2016, 31, 2627-2639.	1.2	14
167	Migration of Open Volume Deficiencies in Hydrogenated Amorphous Silicon During Annealing. IEEE Journal of Photovoltaics, 2017, 7, 421-429.	1.5	14
168	Calculation of irradiance distribution on PV modules by combining sky and sensitivity maps. Solar Energy, 2017, 150, 49-54.	2.9	14
169	Optical characterization of poly-SiOx and poly-SiCx carrier-selective passivating contacts. Solar Energy Materials and Solar Cells, 2020, 210, 110507.	3.0	14
170	Influence of Mo/MoSe2 microstructure on the damp heat stability of the Cu(In,Ga)Se2 back contact molybdenum. Thin Solid Films, 2016, 612, 381-392.	0.8	13
171	Advanced light management techniques for two-terminal hybrid tandem solar cells. Solar Energy Materials and Solar Cells, 2018, 181, 77-82.	3.0	13
172	Quenching Mo optical losses in CIGS solar cells by a point contacted dual-layer dielectric spacer: a 3-D optical study. Optics Express, 2018, 26, A39.	1.7	13
173	Interdigitated backâ€contacted structure: A different approach towards highâ€efficiency ultrathin copper indium gallium (di)selenide solar cells. Progress in Photovoltaics: Research and Applications, 2020, 28, 899-908.	4.4	13
174	Application of the Defect Pool Model in Modelling of a-Si:H Solar Cells. Materials Research Society Symposia Proceedings, 1995, 377, 639.	0.1	12
175	Optimization of a-SiGe:H solar cells with graded intrinsic layers using integrated optical and electrical modeling. Thin Solid Films, 2004, 451-452, 294-297.	0.8	12
176	Degradation of CIGS solar cells due to the migration of alkali-elements. , 2015, , .		12
177	Ambiguities in optical simulations of nanotextured thin-film solar cells using the finite-element method. Optics Express, 2015, 23, A1060.	1.7	12
178	The Long Road to Universal Electrification: A Critical Look at Present Pathways and Challenges. Energies, 2020, 13, 508.	1.6	12
179	Oxygenâ€alloyed polyâ€Si passivating contacts for highâ€thermal budget câ€Si heterojunction solar cells. Progress in Photovoltaics: Research and Applications, 2022, 30, 141-151.	4.4	12
180	Comparing optical performance of a wide range of perovskite/silicon tandem architectures under real-world conditions. Nanophotonics, 2021, 10, 2043-2057.	2.9	12

#	Article	IF	Citations
181	Effect of Interface Roughness on Light Scattering and Optical Properties of a-Si:H Solar Cells. Materials Research Society Symposia Proceedings, 1999, 557, 725.	0.1	11
182	A low-temperature synthesis of electrochemical active Pt nanoparticles and thin films by atomic layer deposition on Si(111) and glassy carbon surfaces. Thin Solid Films, 2015, 586, 28-34.	0.8	11
183	Too Many Junctions? A Case Study of Multijunction Thinâ€Film Silicon Solar Cells. Advanced Sustainable Systems, 2017, 1, 1700077.	2.7	11
184	Selection Map for PV Module Installation Based on Shading Tolerability and Temperature Coefficient. IEEE Journal of Photovoltaics, 2019, 9, 872-880.	1.5	11
185	Realizing the Potential of RF-Sputtered Hydrogenated Fluorine-Doped Indium Oxide as an Electrode Material for Ultrathin SiOx/Poly-Si Passivating Contacts. ACS Applied Energy Materials, 2020, 3, 8606-8618.	2.5	11
186	The effect of hydrogen dilution on glow discharge a-SiGe:H alloys. Solar Energy Materials and Solar Cells, 1991, 21, 255-265.	0.4	10
187	Performance analysis ofa-Si:H pâ€“iâ€“n solar cells with and without a buffer layer at the p/i interface. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 2298-2303.	0.8	10
188	Optical and Electrical Simulation of Î¼c-Si:H Solar Cells: Effect of Substrate Morphology and Crystalline Fraction. IEEE Journal of Photovoltaics, 2014, 4, 22-27.	1.5	10
189	Accelerated performance degradation of CIGS solar cell determined by in-situ monitoring. Proceedings of SPIE, 2014, , .	0.8	10
190	Electrical transport mechanisms in amorphous/crystalline silicon heterojunction: Impact of passivation layer thickness. Thin Solid Films, 2014, 558, 315-319.	0.8	10
191	A novel way of texturing glass for microcrystalline silicon thin film solar cells application. Progress in Photovoltaics: Research and Applications, 2015, 23, 1283-1290.	4.4	10
192	Passivation mechanism in silicon heterojunction solar cells with intrinsic hydrogenated amorphous silicon oxide layers. Journal of Applied Physics, 2017, 121, 085306.	1.1	10
193	Understanding the present and the future electricity needs: Consequences for design of future Solar Home Systems for off-grid rural electrification. , 2017, , .		10
194	Positron Annihilation Studies on the Damp Heat Degradation of ZnO:Al Transparent Conductive Oxide Layers for CIGS Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 1847-1851.	1.5	10
195	Designing a hybrid thinâ€film/wafer silicon triple photovoltaic junction for solar water splitting. Progress in Photovoltaics: Research and Applications, 2019, 27, 245-254.	4.4	10
196	Optimized Metal-Free Back Reflectors for High-Efficiency Open Rear c-Si Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 34-40.	1.5	9
197	Photovoltaic chimney: Thermal modeling and concept demonstration for integration in buildings. Progress in Photovoltaics: Research and Applications, 2020, 28, 465-482.	4.4	9
198	Mapping the photovoltaic potential of the roads including the effect of traffic. Renewable Energy, 2022, 182, 427-442.	4.3	9

#	Article	IF	Citations
199	Ultraâ€thin electron collectors based on ncâ€Si:H for highâ€efficiency silicon heterojunction solar cells. Progress in Photovoltaics: Research and Applications, 2022, 30, 809-822.	4.4	9
200	Colored optic filters on câ€Si IBC solar cells for building integrated photovoltaic applications. Progress in Photovoltaics: Research and Applications, 2022, 30, 401-435.	4.4	9
201	Photonic Crystal Back Reflector in Thin-film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2009, 1153, 1.	0.1	8
202	Comparison of a-SiC:H and a-SiN:H as candidate materials for a p-i interface layer in a-Si:H p-i-n solar cells. Energy Procedia, 2010, 2, 227-234.	1.8	8
203	Silicon nanocrystals: Novel synthesis routes for photovoltaic applications. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 649-657.	0.8	8
204	Nanocrystal size distribution analysis from transmission electron microscopy images. Nanoscale, 2015, 7, 20593-20606.	2.8	8
205	Developing for developing nations: Exploring an affordable solar home system design. , 2016, , .		8
206	Temperature dependency of the silicon heterojunction lifetime model based on the amphoteric nature of dangling bonds. AIP Advances, 2016, 6, 115118.	0.6	8
207	Periodic and Random Substrate Textures for Liquid-Phase Crystallized Silicon Thin-Film Solar Cells. IEEE Journal of Photovoltaics, 2017, 7, 85-90.	1.5	8
208	Geometrical optimisation of coreâ€“shell nanowire arrays for enhanced absorption in thin crystalline silicon heterojunction solar cells. Beilstein Journal of Nanotechnology, 2019, 10, 322-331.	1.5	8
209	Ray-optics study of gentle non-conformal texture morphologies for perovskite/silicon tandems. Optics Express, 2022, 30, 5608.	1.7	8
210	Analysis of light scattering in a-Si:H-based solar cells with rough interfaces. Solar Energy Materials and Solar Cells, 2002, 74, 401-406.	3.0	7
211	Point defects in BaSi2 thin films for photovoltaic applications studied by positron annihilation spectroscopy. Journal of Applied Physics, 2020, 127, .	1.1	7
212	Strategy to mitigate the dipole interfacial states in (i)aâ€Si:H/MoO_x passivating contacts solar cells. Progress in Photovoltaics: Research and Applications, 2021, 29, 391-400.	4.4	7
213	Advanced method for electrical characterization of carrier-selective passivating contacts using transfer-length-method measurements under variable illumination. Journal of Applied Physics, 2021, 129, .	1.1	7
214	Evolution and role of vacancy clusters at grain boundaries of ZnO:Al during accelerated degradation of Cu(In,Ga)Se2 solar cells revealed by positron annihilation. Physical Review Materials, 2018, 2, .	0.9	7
215	Hydrogenated amorphous silicon transverse junction solar cell. Applied Physics Letters, 1998, 72, 209-210.	1.5	6
216	Mediumâ€range order in aâ€Si:H films prepared from hydrogen diluted silane. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 548-551.	0.8	6

#	Article	IF	Citations
217	Modulated surface-textured substrates with high haze: From concept to application in thin-film silicon solar cells. , 2011, , .		6
218	Degradation kinetics of amorphous silicon solar cells processed at high pressure and its relation to the nanostructure. , 2013, , .		6
219	Quantum confinement and band offsets in amorphous silicon quantum wells. Physical Review B, 2014, 90, .	1.1	6
220	Study of the effect of boron doping on the solid phase crystallisation of hydrogenated amorphous silicon films. Thin Solid Films, 2014, 568, 38-43.	0.8	6
221	Optimized back Reflectors for Rear Diffused c-Si Solar Cells. Energy Procedia, 2014, 55, 94-100.	1.8	6
222	MoOx Hole Collection Layer for a-Si:H Based Photovoltaic Cells. MRS Advances, 2016, 1, 977-983.	0.5	6
223	Shrinking of silicon nanocrystals embedded in an amorphous silicon oxide matrix during rapid thermal annealing in a forming gas atmosphere. Nanotechnology, 2016, 27, 365601.	1.3	6
224	Quadrupleâ€Junction Thinâ€Film Silicon Solar Cells Using Four Different Absorber Materials. Solar Rrl, 2017, 1, 1700036.	3.1	6
225	Improving the Back Surface Field on an Amorphous Silicon Carbide Thinâ€Film Photocathode for Solar Water Splitting. ChemSusChem, 2018, 11, 1797-1804.	3.6	6
226	Electrochemical Oxidation of Organic Pollutants Powered by a Silicon-Based Solar Cell. ACS Omega, 2018, 3, 14392-14398.	1.6	6
227	Structure of thin polycrystalline silicon films on ceramic substrates. Journal of Crystal Growth, 2001, 223, 332-340.	0.7	5
228	Properties of semiconductor surfaces covered with very thin insulating overlayers prepared by impacts of low-energy particles. Vacuum, 2002, 67, 131-141.	1.6	5
229	Optical and Electrical Analysis of Tandem Micromorph Silicon Solar Cell to Achieve Record-High Efficiency. , 2006, , .		5
230	Phase Control and Stability of Thin Silicon Films Deposited from Silane Diluted with Hydrogen. Materials Research Society Symposia Proceedings, 2007, 989, 1.	0.1	5
231	Suppression of crystalline growth in silicon films deposited from hydrogen diluted silane using a layer-by-layer approach. Thin Solid Films, 2007, 515, 7460-7464.	0.8	5
232	Simulation studies on the effect of a buffer layer on the external parameters of hydrogenated amorphous silicon p-i-n solar cells. Bulletin of Materials Science, 2008, 31, 737-739.	0.8	5
233	Optimization of the pâ€“i interface properties in thin film microcrystalline silicon solar cell. Solar Energy Materials and Solar Cells, 2010, 94, 1864-1868.	3.0	5
234	Standing waves in fiber-optic interferometers. Applied Optics, 2011, 50, 5674.	2.1	5

#	Article	IF	Citations
235	Influence of deposition temperature on amorphous structure of PECVD deposited a-Si:H thin films. Open Physics, 2011, 9, .	0.8	5
236	Thin-Film Silicon PV Technology. , 2012, , 389-398.		5
237	Hydrogenated amorphous silicon pâ€“îâ€“n solar cells deposited under well controlled ion bombardment using pulseâ€shaped substrate biasing. Progress in Photovoltaics: Research and Applications, 2012, 20, 333-342.	4.4	5
238	Structural analyses of seeded thin film microcrystalline silicon solar cell. Progress in Photovoltaics: Research and Applications, 2014, 22, 346-355.	4.4	5
239	Determination of defect density of state distribution of amorphous silicon solar cells by temperature derivative capacitance-frequency measurement. Journal of Applied Physics, 2014, 115, 034512.	1.1	5
240	Comprehensive modelling and sizing of PV systems from location to load. Materials Research Society Symposia Proceedings, 2015, 1771, 17-23.	0.1	5
241	Optical characterization and density of states determination of silicon nanocrystals embedded in amorphous silicon based matrix. Journal Physics D: Applied Physics, 2015, 48, 325302.	1.3	5
242	A modeling methodology to evaluate the impact of temperature on Solar Home Systems for rural electrification. , 2018, , .		5
243	Passivation Enhancement of Poly-Si Carrier-Selective Contacts by Applying ALD Al₂O₃ Capping Layers. IEEE Journal of Photovoltaics, 2022, 12, 259-266.	1.5	5
244	The influence of deposition parameters on the growth of a-SiGe:H alloys in a plasma CVD system. Applied Surface Science, 1990, 46, 245-248.	3.1	4
245	Optical properties of a-SiGe:H solar cells on textured substrates. Journal of Non-Crystalline Solids, 1998, 227-230, 1262-1266.	1.5	4
246	Influence of the plasma pretreatment of GaAs(100) and Si(100) surfaces on the optical and structural properties of Si3N4/GaAs and a-SiGe/Si interfaces. Applied Surface Science, 2000, 166, 72-76.	3.1	4
247	Defect re-distribution in amorphous silicon below equilibration temperature. Journal of Non-Crystalline Solids, 2000, 266-269, 553-557.	1.5	4
248	Amorphous silicon-based multilayers for photovoltaic applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, NA-NA.	0.8	4
249	Modeling of Advanced Light Trapping Approaches in Thin-Film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2011, 1321, 153.	0.1	4
250	Plasmonic Solar Cells with Embedded Silver Nanoparticles from Vapor Condensation. Materials Research Society Symposia Proceedings, 2012, 1391, 52.	0.1	4
251	3-D optical modeling of single and multi-junction thin-film silicon solar cells on gratings. Materials Research Society Symposia Proceedings, 2012, 1426, 149-154.	0.1	4
252	Microstructure analysis of n-doped μc-SiO<inf>x</inf>:H reflector layers and their implementation in stable a-Si:H p-i-n junctions. , 2012, , .		4

#	Article	IF	Citations
253	Recombination efficacy in a-Si:H p-i-n devices. Journal of Non-Crystalline Solids, 2012, 358, 2190-2193.	1.5	4
254	Analysis of single junction a-Si:H solar cells grown on different TCOâ€™s. Vacuum, 2012, 86, 765-768.	1.6	4
255	Optimized nano-textured interfaces for thin-film silicon solar cells: identifying the limit of randomly textured interfaces. Proceedings of SPIE, 2014, , .	0.8	4
256	In-situ monitoring of the accelerated performance degradation of thin film solar cells. , 2015, , .		4
257	Hydrogenated amorphous silicon oxide (a-SiOx:H) single junction solar cell with 8.8% initial efficiency by reducing parasitic absorptions. Journal of Applied Physics, 2017, 121, 133103.	1.1	4
258	Electron tomography analysis of 3D interfacial nanostructures appearing in annealed Si rich SiC films. Nanoscale, 2017, 9, 6703-6710.	2.8	4
259	Light-Induced Effects on the a-Si:H/c-Si Heterointerface. IEEE Journal of Photovoltaics, 2017, 7, 656-664.	1.5	4
260	Optical study of back-contacted CIGS solar cells. Optics Express, 2019, 27, A269.	1.7	4
261	A Comprehensive Workflow for High Resolution 3D Solar Photovoltaic Potential Mapping in Dense Urban Environment: A Case Study on Campus of Delft University of Technology. Solar Rrl, 2022, 6, .	3.1	4
262	Simulation of Hydrogenated Amorphous Silicon Germanium Alloys for Bandgap Grading. Materials Research Society Symposia Proceedings, 1999, 557, 773.	0.1	3
263	Performance dependence on grading width of a-SiGe:H component solar cells. , 0, , .		3
264	Photoluminescence properties of a-Si:H based thin films and corresponding solar cells. Thin Solid Films, 2003, 433, 344-351.	0.8	3
265	Modelling the light induced metastable effects in amorphous silicon. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 606-608.	0.8	3
266	Modulated surface-textured substrates with high haze for thin-film silicon solar cells. Materials Research Society Symposia Proceedings, 2011, 1321, 117.	0.1	3
267	Advanced Optical Modeling of Thin-film Silicon Solar Cells with 1-D Periodic Gratings.. Materials Research Society Symposia Proceedings, 2011, 1322, 27.	0.1	3
268	Thin-film silicon technology for highly-efficient solar cells. , 2012, , .		3
269	Towards Lambertian internal light scattering in solar cells using coupled plasmonic and dielectric nanoparticles as back reflector. , 2013, , .		3
270	Front/Rear Decoupled Texturing in Refractive and Diffractive Regimes for Ultra-Thin Silicon-Based Solar Cells. , 2013, , .		3

#	Article	IF	Citations
271	Optical modeling of an efficient water splitting device based on bismuth vanadate photoanode and micromorph silicon solar cells. , 2014, , .		3
272	Size control, quantum confinement, and oxidation kinetics of silicon nanocrystals synthesized at a high rate by expanding thermal plasma. Applied Physics Letters, 2015, 106, 213106.	1.5	3
273	Optimizing Silicon Oxide Embedded Silicon Nanocrystal Inter-particle Distances. Nanoscale Research Letters, 2016, 11, 355.	3.1	3
274	Ultra-thin LiF Layer As The Electron Collector For a-Si:H Based Photovoltaic Cell. MRS Advances, 2017, 2, 863-867.	0.5	3
275	Artifact Interpretation of Spectral Response Measurements on Twoâ€Terminal Multijunction Solar Cells. Advanced Energy Materials, 2017, 7, 1601930.	10.2	3
276	Distinguishing Fabry-Perot from guided resonances in thin periodically-textured silicon absorbers. Optics Express, 2018, 26, A737.	1.7	3
277	Optical Analysis of Poly-Si and Poly-SiOx Carrier-Selective Passivating Contacts for c-Si Solar Cells. , 2017, , .		3
278	Effect of front and back contact roughness on optical properties of single junction aâ€“Si:H solar cells. Solar Energy Materials and Solar Cells, 2001, 66, 353-359.	3.0	2
279	Effect of Fermi Level Position in Intrinsic a-Si:H on the Evolution of Defect States under Light Exposure.. Materials Research Society Symposia Proceedings, 2005, 862, 1311.	0.1	2
280	Flexible a-Si/Î¼c-Si Tandem Modules in the Helianthos Project. , 2006, , .		2
281	Defect-state engineering in a-Si:H: An effective tool for studying processes during light-induced degradation. Journal of Non-Crystalline Solids, 2006, 352, 1059-1063.	1.5	2
282	Structural Properties of a-Si:H Films with Improved Stability against Light Induced Degradation. Materials Research Society Symposia Proceedings, 2009, 1153, 1.	0.1	2
283	Structural models of aâ€Si:H with a low defect concentration: A firstâ€principles molecular dynamics study. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 605-608.	0.8	2
284	Influence of hydrogen dilution on surface roughness development of a-Si:H thin films grown by remote plasma deposition. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, NA-NA.	0.8	2
285	Thin-Film Silicon Solar Cells Using Back Reflector with Embedded Metal Nanoparticles. Advances in Science and Technology, 2010, 74, 182-187.	0.2	2
286	Optical scattering properties of a nano-textured ZnO-silicon interface. Proceedings of SPIE, 2011, , .	0.8	2
287	Thin film surface processing by ultrashort laser pulses (USLP). Proceedings of SPIE, 2012, , .	0.8	2
288	Textured substrate for high-efficiency n-i-p μc-Si:H solar cells. , 2013, , .		2

#	Article	IF	Citations
289	In-situ analysis of the degradation of Cu(In, Ga)Se<inf>2</inf> solar cells. , 2013, , .		2
290	Opto-electronic evaluation of thin double-textured crystalline silicon wafers. , 2013, , .		2
291	Integrating electricity from solar energy in electricity power system. , 2014, , .		2
292	Damp heat related degradation mechanisms within CIGS solar cells. , 2016, , .		2
293	Treatment of Organic Pollutants Using a Solar Energy Driven Photoâ€Oxidation Device. Advanced Sustainable Systems, 2017, 1, 1700010.	2.7	2
294	The Dutch PV portal 2.0: An online photovoltaic performance modeling environment for the Netherlands. Renewable Energy, 2020, 154, 175-186.	4.3	2
295	Optical, Electronic and Structural Properties. , 1998, , 41-68.		2
296	Investigation of the interface properties of hydrogenated amorphous silicon p-i junctions. Journal of Non-Crystalline Solids, 1993, 164-166, 667-670.	1.5	1
297	Modeling of a-Si:H Alloy Solar Cells on Textured Substrates. Materials Research Society Symposia Proceedings, 1997, 467, 671.	0.1	1
298	New trends in thin-film silicon solar cell technology. , 0, , .		1
299	Charge deep-level transient spectroscopy study of high-energy-electron-beam-irradiated hydrogenated amorphous silicon. Applied Physics Letters, 2006, 89, 022119.	1.5	1
300	Structural and Opto-Electronic Properties of a-Si:H/a-SiNx:H Superlattices. Materials Research Society Symposia Proceedings, 2008, 1066, 1.	0.1	1
301	Amorphous Semiconductors Studied by First-principles Simulations: Structure and Electronic Properties. Materials Research Society Symposia Proceedings, 2009, 1153, 1.	0.1	1
302	Predicting Î¼câ€Si:H crystal orientation from Raman measurement under polarized light. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 708-711.	0.8	1
303	Positron annihilation depthâ€profiling as a promising tool for the structural analysis of lightâ€soaked aâ€Si:H absorber layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 632-635.	0.8	1
304	Preface: Phys. Status Solidi C 7/3-4. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 493-498.	0.8	1
305	Structure and optical properties of the hydrogen diluted a-Si:H thin films prepared by PECVD with different deposition temperatures. , 2010, , .		1
306	Silver nanoparticles for plasmonic light trapping in A-Si:H solar cells. , 2011, , .		1

#	Article	IF	Citations
307	Effective Medium Analysis of Plasmonic Silver Nanoparticle Films. Materials Research Society Symposia Proceedings, 2011, 1322, 33.	0.1	1
308	Responses of simple optical standing wave sensors. Applied Optics, 2012, 51, 3109.	0.9	1
309	The Scalar Scattering Theory: A Multi-Functional Tool for Optimizing Scattering in Thin-Film Silicon Solar Cells. , 2012, , .		1
310	An Algorithm for Finding Optimized Interface Morphologies in Thin Film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2012, 1426, 75-80.	0.1	1
311	New insights in the nanostructure and defect states of hydrogenated amorphous silicon obtained by annealing. , 2012, , .		1
312	Performance Analysis of Thin-Film Crystalline Silicon-on-Glass Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 1144-1148.	1.5	1
313	19.8% conversion efficiency in modulated surface textured IBC c-Si solar cells. , 2014, , .		1
314	The influence of atmospheric species on the degradation of aluminum doped zinc oxide and Cu(In,Ga)Se₂solar cells. Proceedings of SPIE, 2014, , .	0.8	1
315	Solar powered infotainment spot: design, feasibility study and fabrication of an autonomous PV system. Materials Research Society Symposia Proceedings, 2015, 1771, 51-57.	0.1	1
316	Optimized metal free back reflectors for high efficiency open rear c-Si solar cells. , 2015, , .		1
317	Monolithic two-terminal hybrid a-Si:H/CIGS tandem cells. , 2016, , .		1
318	Facing the challenge of liquid phase crystallizing silicon on textured glass substrates. , 2016, , .		1
319	Solar fuel production by using PV/PEC junctions based on earth-abundant materials. , 2016, , .		1
320	Quantification of Valleys of Randomly Textured Substrates as a Function of Opening Angle: Correlation to the Defect Density in Intrinsic nc-Si:H. ACS Applied Materials & Interfaces, 2016, 8, 20660-20666.	4.0	1
321	New insights into the nanostructure of innovative thin film solar cells gained by positron annihilation spectroscopy. Journal of Physics: Conference Series, 2017, 791, 012021.	0.3	1
322	High temperature oxidation pre-treatment of textured c-Si wafers passivated by a-Si:H. Materials Science in Semiconductor Processing, 2019, 97, 67-70.	1.9	1
323	A Multi-layer Modelling Framework for Techno-Socio-Economical Penetration of Photovoltaics. , 2021, , .		1
324	The Effect of Hydrogen on the Plasma Deposition of a-SiGe:H Thin Films for Tandem Solar Cell Applications. , 1991, , 946-949.		1

#	Article	IF	Citations
325	Optical Analysis of Thin-Film Silicon Solar Cells on 1-D Periodic Gratings with Non-Conformal Layers. , 2012, , .		1
326	A Full Scalar Scattering Model for Nano-Textured Interfaces. , 2011, , .		1
327	Thin-Film Amorphous Silicon Nanopillar Solar Cells: An Investigation of the Optical Potential. , 2017, , .		1
328	Density of states characterization of TiO2 films deposited by pulsed laser deposition for heterojunction solar cells. Nano Research, 2022, 15, 4048-4057.	5.8	1
329	Exploring the benefits, challenges, and feasibility of integrating power electronics into c-Si solar cells. Cell Reports Physical Science, 2022, 3, 100944.	2.8	1
330	The effect of hydrogen on the plasma deposition and hydrogen plasma etching of a-SiGe:H thin films. Solar Energy Materials and Solar Cells, 1991, 23, 265-272.	0.4	0
331	Transient Photocurrent Measurements on Current-Stressed a-Si:H Schottky Diodes. Materials Research Society Symposia Proceedings, 1995, 377, 491.	0.1	0
332	Nano-structures for light management in optoelectronic devices. , 2006, , .		0
333	Raman spectroscopy on thin film silicon on non-transparent substrates and in solar cell devices. , 2011, , .		0
334	Optical modeling and optimization of flattened light-scattering substrate for thin-film silicon solar cells. , 2012, , .		0
335	Combined optical and electrical design of plasmonic back reflector for high-efficiency thin-film silicon solar cells. , 2012, , .		0
336	Modulated Surface Textures for Enhanced Scattering in Thin-Film Silicon Solar Cells. , 2012, , .		0
337	New insights in the nanostructure and defect states of hydrogenated amorphous silicon obtained by annealing. , 2013, , .		0
338	The impact of selenisation on damp heat degradation of the CIGS back contact molybdenum. , 2013, , .		0
339	Combined optical and electrical design of plasmonic back reflector for high-efficiency thin-film silicon solar cells. , 2013, , .		0
340	Opto-electrical approaches for high efficiency and ultra-thin c-Si solar cells. , 2014, , .		0
341	Radial heterojunction c-Si nanowire solar cells with 11.8% conversion efficiency. , 2014, , .		0
342	Photonic and plasmonic structures for applications in solar cells. , 2014, , .		0

#	Article	IF	Citations
343	Optical analysis of CIGS solar cells on periodic gratings. , 2015, , .		0
344	The impact of atmospheric species on the degradation of CIGS solar cells and molybdenum films. , 2015, , .		0
345	A rapid method of estimating the solar irradiance spectra with potential lighting applications. , 2016, , .		0
346	Modeling of spectral response measurements on two-terminal multi-junction solar cells. , 2016, , .		0
347	Solar fuel production by using PV/PEC junctions based on earth-abundant materials. , 2017, , .		0
348	High-Efficiency Crystalline Silicon Solar Cell Architectures. , 2018, , .		0
349	Decoupled textures for broadband absorption enhancement beyond Lambertian light trapping limit in thin-film silicon-based solar cells. , 2018, , .		0
350	Application of carrier-selective contacts in c-Si front/back contacted (FBC) and IBC solar cells with different thermal budget. , 2018, , .		0
351	Comparing optical performance of a wide range of perovskite/silicon tandem architectures under real-world conditions. , 2021, , .		0
352	Thin-Film Silicon PV Technology. , 2021, , .		0
353	A Scattering Model for Transparent Thin Films with Surface Textures. , 2010, , .		0
354	Designing Nanotextures Using Perlin Noise, the Scalar Scattering Theory and the Finite Elements Method. , 2014, , .		0
355	Light Trapping Concepts for Enhanced Absorption in Thin Silicon Solar Cells. , 2014, , .		0
356	Optical Device Modeling. , 1998, , 147-174.		0
357	Integrated Optical and Electrical Modeling. , 1998, , 175-201.		0
358	Electrical Device Modeling. , 1998, , 117-146.		0
359	Decoupled front/back dielectric textures for flat ultrathin c-Si solar cells. , 2015, , .		0
360	Optical analysis of dielectric spacers for quenching Mo losses in CIGS solar cells. , 2016, , .		0

#	Article	IF	Citations
361	Back Contacted BaSi2 Thin-Film Solar Cells: an Optical Analysis. , 2016, , .		0
362	An optical study of back contacted CIGS solar cells. , 2018, , .		0
363	Strategy to mitigate the dipole interfacial states in (i)a-Si:H/MoOxpassivating contacts solar cells. , 2020, , .		0
364	Thin-Film Silicon PV Technology. , 2012, , 325-334.		0