

# Christophe Ballif

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1911281/publications.pdf>

Version: 2024-02-01

550  
papers

29,217  
citations

4120

87  
h-index

7136

153  
g-index

562  
all docs

562  
docs citations

562  
times ranked

19032  
citing authors

#	ARTICLE	IF	CITATIONS
1	Operating Temperatures and Diurnal Temperature Variations of Modules Installed in Open-Rack and Typical BIPV Configurations. IEEE Journal of Photovoltaics, 2022, 12, 133-140.	1.5	6
2	Long-Term Performance and Shade Detection in Building Integrated Photovoltaic Systems. Solar Rrl, 2022, 6, 2100583.	3.1	6
3	Localisation of front side passivating contacts for direct metallisation of high-efficiency c-Si solar cells. Solar Energy Materials and Solar Cells, 2022, 235, 111455.	3.0	8
4	Monolithic Perovskite-Silicon Tandem Solar Cells: From the Lab to Fab?. Advanced Materials, 2022, 34, e2106540.	11.1	92
5	Impact of rapid thermal processing on bulk and surface recombination mechanisms in FZ silicon with fired passivating contacts. Solar Energy Materials and Solar Cells, 2022, 238, 111647.	3.0	4
6	Transferability of the Light-Soaking Benefits on Silicon Heterojunction Cells to Module. IEEE Journal of Photovoltaics, 2022, 12, 662-668.	1.5	6
7	Status and perspectives of crystalline silicon photovoltaics in research and industry. Nature Reviews Materials, 2022, 7, 597-616.	23.3	139
8	In Situ Reflectometry and Diffraction Investigation of the Multiscale Structure of p-Type Polysilicon Passivating Contacts for c-Si Solar Cells. ACS Applied Materials & Interfaces, 2022, , .	4.0	5
9	Calibration of ground surface albedo models. Solar Energy, 2022, 237, 239-252.	2.9	2
10	Single photon detection with amorphous silicon-based microchannel plates: A Monte Carlo model. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2022, 1032, 166589.	0.7	2
11	Bulk Defects and Hydrogenation Kinetics in Crystalline Silicon Solar Cells With Fired Passivating Contacts. IEEE Journal of Photovoltaics, 2022, 12, 711-721.	1.5	1
12	Quantitative Analysis of Nanorough Hydrogenated Si(111) Surfaces through Vibrational Spectral Assignment by Periodic DFT Calculations. Journal of Physical Chemistry C, 2022, 126, 8278-8286.	1.5	0
13	Bottom-Up and Top-Down Approaches for Identifying and Mitigating Electrical Losses in Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2022, 12, 906-914.	1.5	1
14	Optimization of front SiNx/ITO stacks for high-efficiency two-side contacted c-Si solar cells with co-annealed front and rear passivating contacts. Solar Energy Materials and Solar Cells, 2021, 219, 110815.	3.0	10
15	Implementation and understanding of p+ fired rear hole selective tunnel oxide passivating contacts enabling >22% conversion efficiency in p-type c-Si solar cells. Solar Energy Materials and Solar Cells, 2021, 219, 110809.	3.0	14
16	Hole-Selective Front Contact Stack Enabling 24.1%-Efficient Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2021, 11, 9-15.	1.5	11
17	Effects of Work Function and Electron Affinity on the Performance of Carrier-Selective Contacts in Silicon Solar Cells Using ZnSn <sub>x</sub> Ge <sub>1-x</sub> N <sub>2</sub> as a Case Study. IEEE Journal of Photovoltaics, 2021, 11, 1350-1357.	1.5	5
18	Nanoscale Study of the Hole-Selective Passivating Contacts with High Thermal Budget Using C-AFM Tomography. ACS Applied Materials & Interfaces, 2021, 13, 9994-10000.	4.0	1

#	ARTICLE	IF	CITATIONS
19	Dopant-Free Bifacial Silicon Solar Cells. Solar Rrl, 2021, 5, 2000771.	3.1	11
20	Evaluating Materials Design Parameters of Hole-Selective Contacts for Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2021, 11, 247-258.	1.5	7
21	Vapor Transport Deposition of Methylammonium Iodide for Perovskite Solar Cells. ACS Applied Energy Materials, 2021, 4, 4333-4343.	2.5	22
22	Multimodal Microscale Imaging of Textured Perovskite-Silicon Tandem Solar Cells. ACS Energy Letters, 2021, 6, 2293-2304.	8.8	25
23	Routing of Electric Vehicles With Intermediary Charging Stations: A Reinforcement Learning Approach. Frontiers in Big Data, 2021, 4, 586481.	1.8	7
24	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
25	Influence of Light Soaking on Silicon Heterojunction Solar Cells With Various Architectures. IEEE Journal of Photovoltaics, 2021, 11, 575-583.	1.5	33
26	ZnSnxGe1-xN2 as electron-selective contact for silicon heterojunction solar cells. , 2021, , .		0
27	A "combi-encapsulant" for enhanced performance of glass-free lightweight crystalline silicon solar PV modules. , 2021, , .		2
28	EVA for Glass/Glass Solar PV Modules: Effect of encasulant storage conditions and process parameters. , 2021, , .		0
29	Monitoring the Operating Temperatures of Modules in Open-Rack and Typical BIPV Configurations. , 2021, , .		2
30	Potential Induced Degradation Mechanism in Rear-Emitter Bifacial Silicon Heterojunction Solar Cells Encapsulated in Different Module Structures. , 2021, , .		1
31	Influence of the Dopant Gas Precursor in P-Type Nanocrystalline Silicon Layers on the Performance of Front Junction Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2021, 11, 944-956.	1.5	9
32	Toward Stable Monolithic Perovskite/Silicon Tandem Photovoltaics: A Six-Month Outdoor Performance Study in a Hot and Humid Climate. ACS Energy Letters, 2021, 6, 2944-2951.	8.8	42
33	Passivating Polysilicon Recombination Junctions for Crystalline Silicon Solar Cells. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100272.	1.2	6
34	Worldwide performance evaluation of ground surface reflectance models. Solar Energy, 2021, 224, 1063-1078.	2.9	3
35	Performance Limitations and Analysis of Silicon Heterojunction Solar Cells Using Ultra-Thin MoO <sub>3</sub> Hole-Selective Contacts. IEEE Journal of Photovoltaics, 2021, 11, 1158-1166.	1.5	8
36	Deep reinforcement learning control of electric vehicle charging in the presence of photovoltaic generation. Applied Energy, 2021, 301, 117504.	5.1	52

#	ARTICLE	IF	CITATIONS
37	Palliating the efficiency loss due to shunting in perovskite/silicon tandem solar cells through modifying the resistive properties of the recombination junction. <i>Sustainable Energy and Fuels</i> , 2021, 5, 2036-2045.	2.5	10
38	Nano-emitting Heterostructures Violate Optical Reciprocity and Enable Efficient Photoluminescence in Halide-Segregated Methylammonium-Free Wide Bandgap Perovskites. <i>ACS Energy Letters</i> , 2021, 6, 419-428.	8.8	31
39	Industrialization of hybrid Si/III-V and translucent planar micro-tracking modules. <i>Progress in Photovoltaics: Research and Applications</i> , 2021, 29, 819-834.	4.4	17
40	Vapor deposition of metal halide perovskite thin films: Process control strategies to shape layer properties. <i>APL Materials</i> , 2021, 9, .	2.2	37
41	A Blockchain-Supported Framework for Charging Management of Electric Vehicles. <i>Energies</i> , 2021, 14, 7144.	1.6	10
42	Instability of p-n perovskite solar cells under reverse bias. <i>Journal of Materials Chemistry A</i> , 2020, 8, 242-250.	5.2	76
43	The versatility of passivating carrier-selective silicon thin films for diverse high-efficiency screen-printed heterojunction-based solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020, 28, 569-577.	4.4	23
44	Mitigating Plasmonic Absorption Losses at Rear Electrodes in High-Efficiency Silicon Solar Cells Using Dopant-Free Contact Stacks. <i>Advanced Functional Materials</i> , 2020, 30, 1907840.	7.8	55
45	Dopant-Free Back-Contacted Silicon Solar Cells with an Efficiency of 22.1%. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900688.	1.2	27
46	Rule-based scheduling of air conditioning using occupancy forecasting. <i>Energy and AI</i> , 2020, 2, 100022.	5.8	21
47	Effects of X-rays on Perovskite Solar Cells. <i>Journal of Physical Chemistry C</i> , 2020, 124, 17949-17956.	1.5	21
48	A Mixed-Phase SiO <sub>x</sub> Hole Selective Junction Compatible With High Temperatures Used in Industrial Solar Cell Manufacturing. <i>IEEE Journal of Photovoltaics</i> , 2020, 10, 1262-1269.	1.5	11
49	Mitigating the impact of distributed PV in a low-voltage grid using electricity tariffs. <i>Electric Power Systems Research</i> , 2020, 189, 106763.	2.1	13
50	Spectrally Selective Mid-Wave Infrared Detection Using Fabry-Pérot Cavity Enhanced Black Phosphorus 2D Photodiodes. <i>ACS Nano</i> , 2020, 14, 13645-13651.	7.3	41
51	Amorphous/Crystalline Silicon Interface Stability: Correlation between Infrared Spectroscopy and Electronic Passivation Properties. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000957.	1.9	7
52	Degradation Mechanism and Stability Improvement of Dopant-Free ZnO/LiF <sub>x</sub> /Al Electron Nanocontacts in Silicon Heterojunction Solar Cells. <i>ACS Applied Nano Materials</i> , 2020, 3, 11391-11398.	2.4	18
53	Influence of the Subcell Properties on the Fill Factor of Two-Terminal Perovskite-Silicon Tandem Solar Cells. <i>ACS Energy Letters</i> , 2020, 5, 1077-1082.	8.8	49
54	Lateral transport in silicon solar cells. <i>Journal of Applied Physics</i> , 2020, 127, .	1.1	32

#	ARTICLE	IF	CITATIONS
55	Influence of local surface defects on the minority-carrier lifetime of passivating-contact solar cells. Applied Physics Letters, 2020, 116, 113901.	1.5	3
56	Design Rules to Fully Benefit From Bifaciality in Two-Terminal Perovskite/Silicon Tandem Solar Cells. IEEE Journal of Photovoltaics, 2020, 10, 714-721.	1.5	18
57	23.5%-efficient silicon heterojunction silicon solar cell using molybdenum oxide as hole-selective contact. Nano Energy, 2020, 70, 104495.	8.2	179
58	Oneâ€typeâ€fitsâ€cellâ€systems: Strategies for preventing potentialâ€induced degradation in crystalline silicon solar photovoltaic modules. Progress in Photovoltaics: Research and Applications, 2019, 27, 13-21.	4.4	23
59	Aluminium-Doped Zinc Oxide Rear Reflectors for High-Efficiency Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1217-1224.	1.5	29
60	$k_{sub>2</sub>}$ vapor-induced degradation of formamidinium lead iodide based perovskite solar cells under heatâ€light soaking conditions. Energy and Environmental Science, 2019, 12, 3074-3088.	15.6	131
61	Annealing of Silicon Heterojunction Solar Cells: Interplay of Solar Cell and Indium Tin Oxide Properties. IEEE Journal of Photovoltaics, 2019, 9, 1202-1207.	1.5	37
62	Optimization of tunnel-junction IBC solar cells based on a series resistance model. Solar Energy Materials and Solar Cells, 2019, 200, 110036.	3.0	26
63	Analysis of hydrogen distribution and migration in fired passivating contacts (FPC). Solar Energy Materials and Solar Cells, 2019, 200, 110018.	3.0	38
64	Solar Water Splitting with Perovskite/Silicon Tandem Cell and TiC-Supported Pt Nanocluster Electrocatalyst. Joule, 2019, 3, 2930-2941.	11.7	85
65	Field test and electrode optimization of electrodynamic cleaning systems for solar panels. Progress in Photovoltaics: Research and Applications, 2019, 27, 1020-1033.	4.4	15
66	Optimized Design of Silicon Heterojunction Solar Cells for Field Operating Conditions. IEEE Journal of Photovoltaics, 2019, 9, 1541-1547.	1.5	9
67	Unsupervised algorithm for disaggregating low-sampling-rate electricity consumption of households. Sustainable Energy, Grids and Networks, 2019, 19, 100244.	2.3	25
68	Impact of the oxygen content on the optoelectronic properties of the indium-tin-oxide based transparent electrodes for silicon heterojunction solar cells. AIP Conference Proceedings, 2019, , .	0.3	5
69	Contributions to the Contact Resistivity in Fired Tunnel-Oxide Passivating Contacts for Crystalline Silicon Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1548-1553.	1.5	9
70	Rear-emitter silicon heterojunction solar cells with atomic layer deposited ZnO:Al serving as an alternative transparent conducting oxide to In <sub>2</sub> O <sub>3</sub> :Sn. Solar Energy Materials and Solar Cells, 2019, 200, 109953.	3.0	24
71	Light Management: A Key Concept in High-Efficiency Perovskite/Silicon Tandem Photovoltaics. Journal of Physical Chemistry Letters, 2019, 10, 3159-3170.	2.1	81
72	35 years of photovoltaics: Analysis of the TISOâ€10â€kW solar plant, lessons learnt in safety and performanceâ€Part 2. Progress in Photovoltaics: Research and Applications, 2019, 27, 760-778.	4.4	33

#	ARTICLE	IF	CITATIONS
73	Record-Efficiency n-Type and High-Efficiency p-Type Monolike Silicon Heterojunction Solar Cells with a High-Temperature Gettering Process. ACS Applied Energy Materials, 2019, 2, 4900-4906.	2.5	13
74	Low-Temperature $p$ -Type Microcrystalline Silicon as Carrier Selective Contact for Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1158-1165.	1.5	33
75	Numerical simulations of hole carrier selective contacts in p-type c-Si solar cells. Solar Energy Materials and Solar Cells, 2019, 200, 109937.	3.0	27
76	Optimised Heat Pump Management for Increasing Photovoltaic Penetration into the Electricity Grid. Energies, 2019, 12, 1571.	1.6	12
77	Low-Temperature Screen-Printed Metallization for the Scale-Up of Two-Terminal Perovskite-Silicon Tandems. ACS Applied Energy Materials, 2019, 2, 3815-3821.	2.5	78
78	Quantifying competitive grain overgrowth in polycrystalline ZnO thin films. Acta Materialia, 2019, 173, 74-86.	3.8	5
79	25.1%-Efficient Monolithic Perovskite/Silicon Tandem Solar Cell Based on a $p$ -type Monocrystalline Textured Silicon Wafer and High-Temperature Passivating Contacts. ACS Energy Letters, 2019, 4, 844-845.	8.8	152
80	Quantifying and modeling the impact of interconnection failures on the electrical performance of crystalline silicon photovoltaic modules. Progress in Photovoltaics: Research and Applications, 2019, 27, 424-432.	4.4	15
81	Exploring co-sputtering of ZnO:Al and SiO <sub>2</sub> for efficient electron-selective contacts on silicon solar cells. Solar Energy Materials and Solar Cells, 2019, 194, 67-73.	3.0	23
82	Injection-dependent lateral resistance in front-junction solar cells with nc-Si:H and a-Si:H hole selective contact. , 2019, , .		3
83	Corrections to "Highly Conductive and Broadband Transparent Zr-Doped In <sub>2</sub> O <sub>3</sub> as Front Electrode for Solar Cells" [Sep 18 1202-1207]. IEEE Journal of Photovoltaics, 2019, 9, 1155-1155.	1.5	0
84	Gallium Nitride as Transparent Electron-Selective Contact in Silicon Heterojunction Solar Cells. , 2019, , .		4
85	Monte Carlo Modeling of Electron Multiplication in Amorphous Silicon Based Microchannel Plates. , 2019, , .		2
86	Development of N-Type Amorphous and Microcrystalline Hydrogenated Silicon-Oxides (SiO <sub>x</sub> :H) and Investigation of their Impact as Window Layers on Silicon Heterojunction Solar Cells Device. , 2019, , .		1
87	Characterization of Amorphous Silicon Based Microchannel Plates with High Aspect Ratio. , 2019, , .		6
88	Phosphorous-Doped Silicon Carbide as Front-Side Full-Area Passivating Contact for Double-Side Contacted c-Si Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 346-354.	1.5	44
89	35 Years of photovoltaics: Analysis of the TISO 10 kW solar plant, lessons learnt in safety and performance" Part 1. Progress in Photovoltaics: Research and Applications, 2019, 27, 328-339.	4.4	49
90	Robust Glass-Free Lightweight Photovoltaic Modules With Improved Resistance to Mechanical Loads and Impact. IEEE Journal of Photovoltaics, 2019, 9, 245-251.	1.5	26

#	ARTICLE	IF	CITATIONS
91	A Physically-Based Electrical Model for Lithium-Ion Cells. IEEE Transactions on Energy Conversion, 2019, 34, 594-603.	3.7	28
92	Zr-doped indium oxide electrodes: Annealing and thickness effects on microstructure and carrier transport. Physical Review Materials, 2019, 3, .	0.9	23
93	PECVD based layers for improved high temperature industrial Solar cell processes. , 2019, , .		1
94	Toward Annealingâ€‘Stable Molybdenumâ€‘Oxideâ€‘Based Holeâ€‘Selective Contacts For Silicon Photovoltaics. Solar Rrl, 2018, 2, 1700227.	3.1	42
95	Complex Refractive Indices of Cesiumâ€‘Formamidinium-Based Mixed-Halide Perovskites with Optical Band Gaps from 1.5 to 1.8 eV. ACS Energy Letters, 2018, 3, 742-747.	8.8	89
96	Amorphous gallium oxide grown by low-temperature PECVD. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, 021518.	0.9	13
97	Light and durable: <sc>C</sc>omposite structures for buildingâ€‘integrated photovoltaic modules. Progress in Photovoltaics: Research and Applications, 2018, 26, 718-729.	4.4	29
98	Recombination Analysis of Phosphorus-Doped Nanostructured Silicon Oxide Passivating Electron Contacts for Silicon Solar Cells. IEEE Journal of Photovoltaics, 2018, 8, 389-396.	1.5	42
99	Low-temperature processes for passivation and metallization of high-efficiency crystalline silicon solar cells. Solar Energy, 2018, 175, 54-59.	2.9	42
100	Interdigitated back contact silicon heterojunction solar cells featuring an interband tunnel junction enabling simplified processing. Solar Energy, 2018, 175, 60-67.	2.9	15
101	Application-independent protocol for predicting the efficiency of lithium-ion battery cells in operations. Journal of Energy Storage, 2018, 15, 415-422.	3.9	12
102	Properties of mixed phase silicon-oxide-based passivating contacts for silicon solar cells. Solar Energy Materials and Solar Cells, 2018, 181, 9-14.	3.0	19
103	Economic viability for residential battery storage systems in gridâ€‘connected PV plants. IET Renewable Power Generation, 2018, 12, 135-142.	1.7	61
104	Closing the Cell-to-Module Efficiency Gap: A Fully Laser Scribed Perovskite Minimodule With 16% Steady-State Aperture Area Efficiency. IEEE Journal of Photovoltaics, 2018, 8, 151-155.	1.5	32
105	Stable Dopant-Free Asymmetric Heterocontact Silicon Solar Cells with Efficiencies above 20%. ACS Energy Letters, 2018, 3, 508-513.	8.8	164
106	Amorphous silicon-based micro-channel plate detectors with high multiplication gain. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 912, 343-346.	0.7	7
107	Field Performance versus Standard Test Condition Efficiency of Tandem Solar Cells and the Singular Case of Perovskites/Silicon Devices. Journal of Physical Chemistry Letters, 2018, 9, 446-458.	2.1	69
108	Hole-Collection Mechanism in Passivating Metal-Oxide Contacts on Si Solar Cells: Insights From Numerical Simulations. IEEE Journal of Photovoltaics, 2018, 8, 473-482.	1.5	71

#	ARTICLE	IF	CITATIONS
109	Improved Optics in Monolithic Perovskite/Silicon Tandem Solar Cells with a Nanocrystalline Silicon Recombination Junction. <i>Advanced Energy Materials</i> , 2018, 8, 1701609.	10.2	192
110	Perovskite/Silicon Tandem Solar Cells: Marriage of Convenience or True Love Story? – An Overview. <i>Advanced Materials Interfaces</i> , 2018, 5, 1700731.	1.9	321
111	Direct Contact to TCO with SmartWire Connection Technology. , 2018, , .		2
112	Silicon Heterojunction Solar Cells on Quasi-mono Wafers. , 2018, , .		4
113	Automated Quantification of PV Hosting Capacity In Distribution Networks Under User-Defined Control and Optimisation Procedures. , 2018, , .		6
114	The amazing improvement of silicon heterojunction technology: ready for a true mass market launch. , 2018, , .		6
115	Quantifying and Modeling the Impact of Interconnection Failures on the Electrical Performance of Crystalline Silicon Photovoltaic Modules. , 2018, , .		1
116	Engineering of Thin-Film Silicon Materials for High Efficiency Crystalline Silicon Solar Cells. , 2018, , .		1
117	In-situ Determination of Moisture Diffusion Properties of PV Module Encapsulants Using Digital Humidity Sensors. , 2018, , .		10
118	Hybrid sequential deposition process for fully textured perovskite/silicon tandem solar cells. , 2018, , .		2
119	A passivating contact concept compatible with a short thermal treatment. , 2018, , .		0
120	Crystalline Silicon Solar Cells With Coannealed Electron- and Hole-Selective SiC <sub>x</sub> Passivating Contacts. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1478-1485.	1.5	39
121	A passivating contact for silicon solar cells formed during a single firing thermal annealing. <i>Nature Energy</i> , 2018, 3, 800-808.	19.8	109
122	Design of perovskite/crystalline-silicon monolithic tandem solar cells. <i>Optics Express</i> , 2018, 26, A579.	1.7	44
123	Perovskite/Perovskite/Silicon Monolithic Triple-Junction Solar Cells with a Fully Textured Design. <i>ACS Energy Letters</i> , 2018, 3, 2052-2058.	8.8	87
124	Highly Conductive and Broadband Transparent Zr-Doped In <sub>2</sub> O <sub>3</sub> as Front Electrode for Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 1202-1207.	1.5	46
125	New Route for “Cold-Passivation” of Defects in Tin-Based Oxides. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17612-17620.	1.5	15
126	Numerical simulation of temperature dependence of MoOx based SHJ solar cell. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	2



#	ARTICLE	IF	CITATIONS
127	Nanocrystalline silicon oxide stacks for silicon heterojunction solar cells for hot climates. AIP Conference Proceedings, 2018, , .	0.3	8
128	Silicon oxide treatment to promote crystallinity of p-type microcrystalline layers for silicon heterojunction solar cells. AIP Conference Proceedings, 2018, , .	0.3	10
129	Nitride layer screening as carrier-selective contacts for silicon heterojunction solar cells. AIP Conference Proceedings, 2018, , .	0.3	8
130	22% efficient dopant-free interdigitated back contact silicon solar cells. AIP Conference Proceedings, 2018, , .	0.3	20
131	Reassessment of cell to module gains and losses: Accounting for the current boost specific to cells located on the edges. AIP Conference Proceedings, 2018, , .	0.3	5
132	Thermo-mechanical stability of lightweight glass-free photovoltaic modules based on a composite substrate. Solar Energy Materials and Solar Cells, 2018, 187, 82-90.	3.0	21
133	Silicon heterojunction solar cells: Recent technological development and practical aspects - from lab to industry. Solar Energy Materials and Solar Cells, 2018, 187, 140-153.	3.0	159
134	Integrated thinking for photovoltaics in buildings. Nature Energy, 2018, 3, 438-442.	19.8	146
135	High-Bandgap Perovskite Materials for Multijunction Solar Cells. Joule, 2018, 2, 1421-1436.	11.7	173
136	Fully textured monolithic perovskite/silicon tandem solar cells with 25.2% power conversion efficiency. Nature Materials, 2018, 17, 820-826.	13.3	1,046
137	Charge Collection in Hybrid Perovskite Solar Cells: Relation to the Nanoscale Elemental Distribution. IEEE Journal of Photovoltaics, 2017, 7, 590-597.	1.5	45
138	Review: Progress in solar cells from hydrogenated amorphous silicon. Renewable and Sustainable Energy Reviews, 2017, 76, 1497-1523.	8.2	134
139	Photocurrent Spectroscopy of Perovskite Layers and Solar Cells: A Sensitive Probe of Material Degradation. Journal of Physical Chemistry Letters, 2017, 8, 838-843.	2.1	18
140	Direct Imaging of Dopant Distribution in Polycrystalline ZnO Films. ACS Applied Materials & Interfaces, 2017, 9, 7241-7248.	4.0	7
141	Optical Evaluation of the Rear Contacts of Crystalline Silicon Solar Cells by Coupled Electromagnetic and Statistical Ray-Optics Modeling. IEEE Journal of Photovoltaics, 2017, 7, 718-726.	1.5	5
142	High performance amorphous Zn-Sn-O: impact of composition, microstructure, and thermal treatments in the optoelectronic properties. Proceedings of SPIE, 2017, , .	0.8	1
143	New guidelines for a more accurate extraction of solar cells and modules key data from their current-voltage curves. Progress in Photovoltaics: Research and Applications, 2017, 25, 623-635.	4.4	3
144	Simple processing of back-contacted silicon heterojunction solar cells using selective-area crystalline growth. Nature Energy, 2017, 2, .	19.8	95

#	ARTICLE	IF	CITATIONS
145	1 cm <sup>2</sup> CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> mesoporous solar cells with 17.8% steady-state efficiency by tailoring front FTO electrodes. <i>Journal of Materials Chemistry C</i> , 2017, 5, 4946-4950.	2.7	12
146	Impact of organic overlayers on <i>a</i> -Si:H/ <i>c</i> -Si surface potential. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	3
147	Control algorithm for a residential photovoltaic system with storage. <i>Applied Energy</i> , 2017, 202, 78-87.	5.1	34
148	Zinc blende wurtzite polytypism in nanocrystalline ZnO films. <i>Acta Materialia</i> , 2017, 130, 240-248.	3.8	12
149	Transparent Electrodes for Efficient Optoelectronics. <i>Advanced Electronic Materials</i> , 2017, 3, 1600529.	2.6	310
150	The impact of silicon solar cell architecture and cell interconnection on energy yield in hot & sunny climates. <i>Energy and Environmental Science</i> , 2017, 10, 1196-1206.	15.6	76
151	Efficient Monolithic Perovskite/Perovskite Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2017, 7, 1602121.	10.2	255
152	The Role of Water in the Reversible Optoelectronic Degradation of Hybrid Perovskites at Low Pressure. <i>Journal of Physical Chemistry C</i> , 2017, 121, 25659-25665.	1.5	19
153	Towards an optimum silicon heterojunction solar cell configuration for high temperature and high light intensity environment. <i>Energy Procedia</i> , 2017, 124, 331-337.	1.8	5
154	Demonstrating the high Voc potential of PEDOT:PSS/ <i>c</i> -Si heterojunctions on solar cells. <i>Energy Procedia</i> , 2017, 124, 593-597.	1.8	17
155	ITO/MoOx/ <i>a</i> -Si:H(i) Hole-Selective Contacts for Silicon Heterojunction Solar Cells: Degradation Mechanisms and Cell Integration. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 1584-1590.	1.5	52
156	Raising the one-sun conversion efficiency of <i>a</i> -Si solar cells to 32.8% for two junctions and 35.9% for three junctions. <i>Nature Energy</i> , 2017, 2, .	19.8	424
157	Imaging the Spatial Evolution of Degradation in Perovskite/Si Tandem Solar Cells After Exposure to Humid Air. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 1563-1568.	1.5	14
158	Spectrally resolved nonlinearity and temperature dependence of perovskite solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2017, 172, 66-73.	3.0	15
159	Improved ramp-rate and self consumption ratio in a renewable-energy-based DC micro-grid. , 2017, , .		1
160	Increasing the efficiency of silicon heterojunction solar cells and modules by light soaking. <i>Solar Energy Materials and Solar Cells</i> , 2017, 173, 43-49.	3.0	65
161	Interplay of annealing temperature and doping in hole selective rear contacts based on silicon-rich silicon-carbide thin films. <i>Solar Energy Materials and Solar Cells</i> , 2017, 173, 18-24.	3.0	79
162	Enhancing the optoelectronic properties of amorphous zinc tin oxide by subgap defect passivation: A theoretical and experimental demonstration. <i>Physical Review B</i> , 2017, 95, .	1.1	31

#	ARTICLE	IF	CITATIONS
163	From randomly self-textured substrates to highly efficient thin film solar cells: Influence of geometric interface engineering on light trapping, plasmonic losses and charge extraction. <i>Solar Energy Materials and Solar Cells</i> , 2017, 160, 141-148.	3.0	21
164	Metallization of Si heterojunction solar cells by nanosecond laser ablation and Ni-Cu plating. <i>Solar Energy Materials and Solar Cells</i> , 2017, 159, 243-250.	3.0	30
165	Analysis of lithium-ion cells performance, through novel test protocol for stationary applications. , 2017, , .		5
166	MoOx and WOx based hole-selective contacts for wafer-based Si solar cells. , 2017, , .		4
167	Modeling Potential-Induced Degradation (PID) of Field-Exposed Crystalline Silicon Solar PV Modules: Focus on a Regeneration Term. , 2017, , .		2
168	Fourier light scattering model for treating textures deeper than the wavelength. <i>Optics Express</i> , 2017, 25, A14.	1.7	11
169	Mechanically stacked 4-terminal III-V/Si tandem solar cells. , 2017, , .		2
170	Ultra-Lightweight PV module design for Building Integrated Photovoltaics. , 2017, , .		6
171	Exploring silicon carbide- and silicon oxide-based layer stacks for passivating contacts to silicon solar cells. , 2017, , .		0
172	Notice of Removal Microcrystalline silicon carrier collectors for silicon heterojunction solar cells and impact on low-temperature device characteristics. , 2017, , .		3
173	Advanced silicon thin films for high-efficiency silicon heterojunction-based solar cells. , 2017, , .		9
174	Perovskite/Silicon Tandem Solar Cells: Challenges Towards High- Efficiency in 4-Terminal and Monolithic Devices. , 2017, , .		3
175	Tuning the Optoelectronic Properties of ZnO:Al by Addition of Silica for Light Trapping in High-Efficiency Crystalline Si Solar Cells. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500462.	1.9	16
176	Zinc tin oxide as high-temperature stable recombination layer for mesoscopic perovskite/silicon monolithic tandem solar cells. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	105
177	Asymmetric band offsets in silicon heterojunction solar cells: Impact on device performance. <i>Journal of Applied Physics</i> , 2016, 120, 054501.	1.1	17
178	Passivating contacts for silicon solar cells with 800 Å°C stability based on tunnel-oxide and highly crystalline thin silicon layer. , 2016, , .		4
179	Silicon-Rich Silicon Carbide Hole-Selective Rear Contacts for Crystalline-Silicon-Based Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 35660-35667.	4.0	57
180	High-efficiency perovskite/silicon heterojunction tandem solar cells. , 2016, , .		2

#	ARTICLE	IF	CITATIONS
181	Temperature dependence of hydrogenated amorphous silicon solar cell performances. Journal of Applied Physics, 2016, 119, .	1.1	27
182	Profilometry of thin films on rough substrates by Raman spectroscopy. Scientific Reports, 2016, 6, 37859.	1.6	14
183	Survey of dopant-free carrier-selective contacts for silicon solar cells. , 2016, , .		12
184	Light-induced performance increase of silicon heterojunction solar cells. Applied Physics Letters, 2016, 109, .	1.5	67
185	Elemental distribution and charge collection at the nanoscale on perovskite solar cells. , 2016, , .		8
186	Boosting the efficiency of III-V/Si tandem solar cells. , 2016, , .		6
187	Design of periodic nano- and macro-scale textures for high-performance thin-film multi-junction solar cells. Journal of Optics (United Kingdom), 2016, 18, 064005.	1.0	5
188	Realization of GaInP/Si Dual-Junction Solar Cells With 29.8% 1-Sun Efficiency. IEEE Journal of Photovoltaics, 2016, 6, 1012-1019.	1.5	114
189	Nanocrystalline Silicon Carrier Collectors for Silicon Heterojunction Solar Cells and Impact on Low-Temperature Device Characteristics. IEEE Journal of Photovoltaics, 2016, 6, 1654-1662.	1.5	82
190	Exceedingly Cheap Perovskite Solar Cells Using Iron Pyrite Hole Transport Materials. ChemistrySelect, 2016, 1, 5316-5319.	0.7	25
191	Efficient Near-Infrared-Transparent Perovskite Solar Cells Enabling Direct Comparison of 4-Terminal and Monolithic Perovskite/Silicon Tandem Cells. ACS Energy Letters, 2016, 1, 474-480.	8.8	332
192	Solar-to-Hydrogen Production at 14.2% Efficiency with Silicon Photovoltaics and Earth-Abundant Electrocatalysts. Journal of the Electrochemical Society, 2016, 163, F1177-F1181.	1.3	85
193	Review of amorphous silicon based particle detectors: the quest for single particle detection. Semiconductor Science and Technology, 2016, 31, 103005.	1.0	20
194	Probing Photocurrent Nonuniformities in the Subcells of Monolithic Perovskite/Silicon Tandem Solar Cells. Journal of Physical Chemistry Letters, 2016, 7, 5114-5120.	2.1	22
195	Accurate Determination of Photovoltaic Cell and Module Peak Power From Their Currentâ€“Voltage Characteristics. IEEE Journal of Photovoltaics, 2016, 6, 1564-1575.	1.5	10
196	Passivating electron contact based on highly crystalline nanostructured silicon oxide layers for silicon solar cells. Solar Energy Materials and Solar Cells, 2016, 158, 2-10.	3.0	90
197	Efficient silicon solar cells with dopant-free asymmetric heterocontacts. Nature Energy, 2016, 1, .	19.8	461
198	Progression towards high efficiency perovskite solar cells via optimisation of the front electrode and blocking layer. Journal of Materials Chemistry C, 2016, 4, 11269-11277.	2.7	17

#	ARTICLE	IF	CITATIONS
199	In Situ TEM Analysis of Organic-Inorganic Metal-Halide Perovskite Solar Cells under Electrical Bias. Nano Letters, 2016, 16, 7013-7018.	4.5	115
200	<i>In-Situ</i> Monitoring of Moisture Ingress in PV Modules Using Digital Humidity Sensors. IEEE Journal of Photovoltaics, 2016, 6, 1152-1159.	1.5	35
201	Advanced TEM characterization of new electrical contacts for high efficiency c-Si solar cells. Microscopy and Microanalysis, 2016, 22, 1624-1625.	0.2	0
202	High Temperature Stability of Amorphous Zn-Sn-O Transparent Conductive Oxides Investigated by In Situ TEM and X-ray Diffraction. Microscopy and Microanalysis, 2016, 22, 1582-1583.	0.2	0
203	Strategies for Doped Nanocrystalline Silicon Integration in Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 1132-1140.	1.5	54
204	Parasitic Absorption Reduction in Metal Oxide-Based Transparent Electrodes: Application in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 17260-17267.	4.0	80
205	Mechanical integrity of hybrid indium-free electrodes for flexible devices. Organic Electronics, 2016, 35, 136-141.	1.4	10
206	An Indium-Free Anode for Large-Area Flexible OLEDs: Defect-Free Transparent Conductive Zinc Tin Oxide. Advanced Functional Materials, 2016, 26, 384-392.	7.8	90
207	Comparison of amorphous silicon absorber materials: Kinetics of light-induced degradation. Progress in Photovoltaics: Research and Applications, 2016, 24, 446-457.	4.4	15
208	Transparent Electrodes in Silicon Heterojunction Solar Cells: Influence on Contact Passivation. IEEE Journal of Photovoltaics, 2016, 6, 17-27.	1.5	38
209	Comparison of LPCVD and sputter-etched ZnO layers applied as front electrodes in tandem thin-film silicon solar cells. Solar Energy Materials and Solar Cells, 2016, 145, 185-192.	3.0	11
210	Efficient Monolithic Perovskite/Silicon Tandem Solar Cell with Cell Area $>2 \text{ cm}^2$ . Journal of Physical Chemistry Letters, 2016, 7, 161-166.	2.1	448
211	Multifunctional Antireflection Coatings for High-Efficient Light Harvesting in Photovoltaic Devices. , 2016, , .		0
212	Highly transparent modulated surface textured front electrodes for high-efficiency multijunction thin-film silicon solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 949-963.	4.4	46
213	Effect of the thin-film limit on the measurable optical properties of graphene. Scientific Reports, 2015, 5, 15684.	1.6	13
214	Attenuated total reflectance Fourier-transform infrared spectroscopic investigation of silicon heterojunction solar cells. Review of Scientific Instruments, 2015, 86, 073108.	0.6	12
215	Environmental stability of high-mobility indium-oxide based transparent electrodes. APL Materials, 2015, 3, 116105.	2.2	47
216	The boron-tailing myth in hydrogenated amorphous silicon solar cells. Applied Physics Letters, 2015, 107, 201112.	1.5	4

#	ARTICLE	IF	CITATIONS
217	New concept of PECVD reactor for efficient production of silicon heterojunction solar cells. , 2015, , .		1
218	Manufacturing 100-Åµm-thick silicon solar cells with efficiencies greater than 20% in a pilot production line. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 13-24.	0.8	44
219	Silicon heterojunction solar cells with plated contacts for low to medium concentration photovoltaics. , 2015, , .		0
220	Three-dimensional amorphous silicon solar cells on periodically ordered ZnO nanocolumns. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 1823-1829.	0.8	11
221	Modeling of Voids Evolution in the Encapsulation Process of Photovoltaic Modules. Polymers and Polymer Composites, 2015, 23, 375-388.	1.0	4
222	Fast and Nondestructive Detection on the EVA Gel Content in Photovoltaic Modules by Optical Reflection. IEEE Journal of Photovoltaics, 2015, 5, 759-765.	1.5	8
223	Transparent electrodes in silicon heterojunction solar cells: Influence on carrier recombination. , 2015, , .		0
224	Passivated interfaces in fluorinated microcrystalline silicon thin film solar cells. , 2015, , .		0
225	Advances in crystalline silicon heterojunction research and opportunities for low manufacturing costs. , 2015, , .		1
226	When PV modules are becoming real building elements: White solar module, a revolution for BIPV. , 2015, , .		24
227	Metal-free crystalline silicon solar cells in module. , 2015, , .		3
228	Microcrystalline silicon solar cells with passivated interfaces for high open-circuit voltage. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 840-845.	0.8	11
229	Light management in thin film silicon solar cells. Energy and Environmental Science, 2015, 8, 824-837.	15.6	91
230	Raman Spectroscopy of Organic-Inorganic Halide Perovskites. Journal of Physical Chemistry Letters, 2015, 6, 401-406.	2.1	206
231	Sputtered rear electrode with broadband transparency for perovskite solar cells. Solar Energy Materials and Solar Cells, 2015, 141, 407-413.	3.0	223
232	Effect of Cooling Press on the Optical Transmission Through Photovoltaic Encapsulants. Polymer-Plastics Technology and Engineering, 2015, 54, 416-424.	1.9	4
233	Solar Hydrogen Production by Amorphous Silicon Photocathodes Coated with a Magnetron Sputter Deposited Mo <sub>2</sub> C Catalyst. Journal of the American Chemical Society, 2015, 137, 7035-7038.	6.6	80
234	Facile preparation of micron- and nano-scale textured master for nano-imprinting front electrode in thin-film silicon tandem cells with improved light trapping. Solar Energy, 2015, 115, 518-524.	2.9	3

#	ARTICLE	IF	CITATIONS
235	Superhard, Antireflective Texturized Coatings Based on Hyperbranched Polymer Composite Hybrids for Thin-Film Solar Cell Encapsulation. <i>Energy Technology</i> , 2015, 3, 366-372.	1.8	4
236	Laser-Scribing Patterning for the Production of Organometallic Halide Perovskite Solar Modules. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1087-1092.	1.5	109
237	Amorphous/Crystalline Silicon Interface Passivation: Ambient-Temperature Dependence and Implications for Solar Cell Performance. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 718-724.	1.5	32
238	CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite / silicon tandem solar cells: characterization based optical simulations. <i>Optics Express</i> , 2015, 23, A263.	1.7	258
239	A scalable and inexpensive surface-texturization method for advanced transparent front electrodes in microcrystalline and micromorph thin film silicon solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 1916-1924.	0.8	1
240	Light trapping in solar cells: numerical modeling with measured surface textures. <i>Optics Express</i> , 2015, 23, A539.	1.7	9
241	Alleviating power quality issues when integrating PV into built areas: Design and control of DC microgrids. , 2015, , .		3
242	Simultaneous realization of light distribution and trapping in micromorph tandem solar cells using novel double-layered antireflection coatings. <i>Solar Energy Materials and Solar Cells</i> , 2015, 143, 546-552.	3.0	9
243	Practical silicon deposition rules derived from silane monitoring during plasma-enhanced chemical vapor deposition. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	10
244	Increasing Polycrystalline Zinc Oxide Grain Size by Control of Film Preferential Orientation. <i>Crystal Growth and Design</i> , 2015, 15, 5886-5891.	1.4	19
245	Absorption Enhancement in Solar Cells With Periodic Interface Textures of Asymmetric Shape. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1534-1539.	1.5	0
246	Silicon Heterojunction Solar Cells: Towards Low-cost High-Efficiency Industrial Devices and Application to Low-concentration PV. <i>Energy Procedia</i> , 2015, 77, 508-514.	1.8	30
247	22.5% efficient silicon heterojunction solar cell with molybdenum oxide hole collector. <i>Applied Physics Letters</i> , 2015, 107, .	1.5	360
248	Low-Temperature High-Mobility Amorphous IZO for Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1340-1347.	1.5	113
249	Tuning the porosity of zinc oxide electrodes: from dense to nanopillar films. <i>Materials Research Express</i> , 2015, 2, 075006.	0.8	16
250	Back-Contacted Silicon Heterojunction Solar Cells: Optical-Loss Analysis and Mitigation. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1293-1303.	1.5	45
251	Recent advances and remaining challenges in thin-film silicon photovoltaic technology. <i>Materials Today</i> , 2015, 18, 378-384.	8.3	83
252	Complex Refractive Index Spectra of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Perovskite Thin Films Determined by Spectroscopic Ellipsometry and Spectrophotometry. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 66-71.	2.1	491

#	ARTICLE	IF	CITATIONS
253	Silver versus white sheet as a back reflector for microcrystalline silicon solar cells deposited on LPCVD ZnO electrodes of various textures. Progress in Photovoltaics: Research and Applications, 2015, 23, 1182-1189.	4.4	18
254	Amorphous silicon-germanium for triple and quadruple junction thin-film silicon based solar cells. Solar Energy Materials and Solar Cells, 2015, 133, 163-169.	3.0	60
255	The effect of cooling press on the encapsulation properties of crystalline photovoltaic modules: residual stress and adhesion. Progress in Photovoltaics: Research and Applications, 2015, 23, 160-169.	4.4	14
256	Organic-inorganic halide perovskite/crystalline silicon four-terminal tandem solar cells. Physical Chemistry Chemical Physics, 2015, 17, 1619-1629.	1.3	308
257	Wire-sawing processes: parametrical study and modeling. Solar Energy Materials and Solar Cells, 2015, 132, 392-402.	3.0	32
258	THIN-FILM SOLAR CELLS BASED ON AMORPHOUS AND MICROCRYSTALLINE SILICON. Series on Photoconversion of Solar Energy, 2014, , 139-207.	0.2	1
259	High-Stable-Efficiency Tandem Thin-Film Silicon Solar Cell With Low-Refractive-Index Silicon-Oxide Interlayer. IEEE Journal of Photovoltaics, 2014, 4, 1368-1373.	1.5	52
260	Large-area Hybrid Silicon Heterojunction Solar Cells with Ni/Cu Plated Front Contacts. Energy Procedia, 2014, 55, 715-723.	1.8	7
261	Multi-occupancy buildings as micro-grids: an asset for integrating photovoltaics in power systems. , 2014, , .		4
262	Tailoring the surface morphology of zinc oxide films for high-performance micromorph solar cells. Solar Energy Materials and Solar Cells, 2014, 128, 378-385.	3.0	11
263	Post-deposition treatment of microcrystalline silicon solar cells for improved performance on rough superstrates. Journal of Applied Physics, 2014, 116, 244504.	1.1	0
264	Thin-film limit formalism applied to surface defect absorption. Optics Express, 2014, 22, 31466.	1.7	5
265	Optical properties of anodically degraded ZnO. Journal of Applied Physics, 2014, 115, 094902.	1.1	2
266	Amorphous silicon oxide window layers for high-efficiency silicon heterojunction solar cells. Journal of Applied Physics, 2014, 115, .	1.1	113
267	Parasitic absorption effects in metallic back reflectors with texture. , 2014, , .		0
268	Light trapping in thin-film solar cells measured by Raman spectroscopy. Applied Physics Letters, 2014, 105, 111106.	1.5	10
269	Thin silicon solar cells: A path to 35% shockley-queisser limits; a DOE funded FPACE II project. , 2014, , .		1
270	Hole selective MoO <sub>3</sub> contact for silicon heterojunction solar cells. , 2014, , .		7



#	ARTICLE	IF	CITATIONS
271	Light-induced Voc increase and decrease in high-efficiency amorphous silicon solar cells. Journal of Applied Physics, 2014, 116, 094503.	1.1	25
272	Hydrogen plasma treatment for improved conductivity in amorphous aluminum doped zinc tin oxide thin films. APL Materials, 2014, 2, 096113.	2.2	30
273	Amorphous Silicon/Crystalline Silicon Heterojunction Solar Cells. Semiconductors and Semimetals, 2014, , 73-120.	0.4	26
274	Resonant Absorption Enhancement in Solar Cells With Periodically Textured Interfaces. IEEE Journal of Photovoltaics, 2014, 4, 785-790.	1.5	2
275	Compressive/shear adhesion characterization of polyvinyl butyral and ethylene vinyl acetate at different curing times before and after exposure to damp heat conditions. Progress in Photovoltaics: Research and Applications, 2014, 22, 405-414.	4.4	38
276	Angular behavior of the absorption limit in thin film silicon solar cells. Progress in Photovoltaics: Research and Applications, 2014, 22, 1147-1158.	4.4	13
277	9.4% Efficient Amorphous Silicon Solar Cell on High Aspect Ratio Glass Microcones. Advanced Materials, 2014, 26, 4082-4086.	11.1	19
278	Silicon heterojunction solar cell with passivated hole selective MoOx contact. Applied Physics Letters, 2014, 104, .	1.5	363
279	Back-Contacted Silicon Heterojunction Solar Cells With Efficiency >21%. IEEE Journal of Photovoltaics, 2014, 4, 1046-1054.	1.5	70
280	Parasitic absorption in the rear reflector of a silicon solar cell: Simulation and measurement of the sub-bandgap reflectance for common dielectric/metal reflectors. Solar Energy Materials and Solar Cells, 2014, 120, 426-430.	3.0	75
281	Silicon oxide buffer layer at the Si interface in amorphous and microcrystalline silicon solar cells. Solar Energy Materials and Solar Cells, 2014, 120, 143-150.	3.0	43
282	Low-temperature plasma-deposited silicon epitaxial films: Growth and properties. Journal of Applied Physics, 2014, 116, .	1.1	21
283	Photolithography-free interdigitated back-contacted silicon heterojunction solar cells with efficiency >21%. , 2014, , .		5
284	High-performance hetero-junction crystalline silicon photovoltaic technology. , 2014, , .		5
285	Copper and Transparent-Conductor Reflectarray Elements on Thin-Film Solar Cell Panels. IEEE Transactions on Antennas and Propagation, 2014, 62, 3813-3818.	3.1	28
286	Amorphous silicon/crystalline silicon heterojunction solar cells ; Analysis of lateral conduction through the inversion layer. , 2014, , .		0
287	Is light-induced degradation of Si:H/Si interfaces reversible?. Applied Physics Letters, 2014, 104, .	1.5	24
288	Self-Patterned Nanoparticle Layers for Vertical Interconnects: Application in Tandem Solar Cells. Nano Letters, 2014, 14, 5085-5091.	4.5	17

#	ARTICLE	IF	CITATIONS
289	Plastic and Elastic Strain Fields in GaAs/Si Core-Shell Nanowires. Nano Letters, 2014, 14, 1859-1864.	4.5	32
290	Class AAA LED-Based Solar Simulator for Steady-State Measurements and Light Soaking. IEEE Journal of Photovoltaics, 2014, 4, 1282-1287.	1.5	33
291	2-D Periodic and Random-on-Periodic Front Textures for Tandem Thin-Film Silicon Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 1177-1184.	1.5	18
292	c-texture versus a-texture low pressure metalorganic chemical vapor deposition ZnO films: Lower resistivity despite smaller grain size. Thin Solid Films, 2014, 565, 1-6.	0.8	35
293	Organic-Inorganic Halide Perovskites: Perspectives for Silicon-Based Tandem Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 1545-1551.	1.5	123
294	Atomic-Layer-Deposited Transparent Electrodes for Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 1387-1396.	1.5	48
295	Scanning Laser-Beam-Induced Current Measurements of Lateral Transport Near-Junction Defects in Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 154-159.	1.5	7
296	Thin-Film Silicon Triple-Junction Solar Cells on Highly Transparent Front Electrodes With Stabilized Efficiencies up to 12.8%. IEEE Journal of Photovoltaics, 2014, 4, 757-762.	1.5	30
297	Silicon Heterojunction Solar Cells With Copper-Plated Grid Electrodes: Status and Comparison With Silver Thick-Film Techniques. IEEE Journal of Photovoltaics, 2014, 4, 1055-1062.	1.5	96
298	Organometallic Halide Perovskites: Sharp Optical Absorption Edge and Its Relation to Photovoltaic Performance. Journal of Physical Chemistry Letters, 2014, 5, 1035-1039.	2.1	2,153
299	The role of front and back electrodes in parasitic absorption in thin-film solar cells. EPJ Photovoltaics, 2014, 5, 50601.	0.8	4
300	Soiling and value of cleaning for low-tilt PV systems in temperate climates: a Swiss case study. , 2014, , .		1
301	Surface and Ultrathin-layer Absorptance Spectroscopy for Solar Cells. Energy Procedia, 2014, 60, 57-62.	1.8	3
302	Fabrication and characterization of monolithically integrated microchannel plates based on amorphous silicon. Scientific Reports, 2014, 4, 4597.	1.6	17
303	Optical transmission as a fast and non-destructive tool for determination of ethylene vinyl acetate curing state in photovoltaic modules. Progress in Photovoltaics: Research and Applications, 2013, 21, 187-194.	4.4	32
304	Hybrid axial and radial Si-GaAs heterostructures in nanowires. Nanoscale, 2013, 5, 9633.	2.8	15
305	Optimized short-circuit current mismatch in multi-junction solar cells. Solar Energy Materials and Solar Cells, 2013, 117, 120-125.	3.0	65
306	High-performance tandem silicon solar cells on F:SnO <sub>2</sub> . Surface and Coatings Technology, 2013, 230, 228-233.	2.2	11

#	ARTICLE	IF	CITATIONS
307	On the Interplay Between Microstructure and Interfaces in High-Efficiency Microcrystalline Silicon Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 11-16.	1.5	29
308	Stencil-Nanopatterned Back Reflectors for Thin-Film Amorphous Silicon n-i-p Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 22-26.	1.5	14
309	Optimization of the Asymmetric Intermediate Reflector Morphology for High Stabilized Efficiency Thin n-i-p Micromorph Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 41-45.	1.5	7
310	Electrothermal Finite-Element Modeling for Defect Characterization in Thin-Film Silicon Solar Modules. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1-8.	1.9	12
311	Building Integrated Photovoltaics (BIPV): Review, Potentials, Barriers and Myths. Green, 2013, 3, .	0.4	160
312	New progress in the fabrication of n-i-p micromorph solar cells for opaque substrates. Solar Energy Materials and Solar Cells, 2013, 114, 147-155.	3.0	29
313	Smoothing intermediate reflecting layer for tandem thin-film silicon solar cells. Solar Energy Materials and Solar Cells, 2013, 119, 12-17.	3.0	11
314	Amorphous Si Thin Film Based Photocathodes with High Photovoltage for Efficient Hydrogen Production. Nano Letters, 2013, 13, 5615-5618.	4.5	151
315	Technological status of plasma-deposited thin-film silicon photovoltaics. Solar Energy Materials and Solar Cells, 2013, 119, 311-316.	3.0	34
316	Improving metal reflectors by suppressing surface plasmon polaritons: a priori calculation of the internal reflectance of a solar cell. Light: Science and Applications, 2013, 2, e106-e106.	7.7	143
317	Light trapping in solar cells at the extreme coupling limit. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 13.	0.9	19
318	>21% Efficient Silicon Heterojunction Solar Cells on n- and p-Type Wafers Compared. IEEE Journal of Photovoltaics, 2013, 3, 83-89.	1.5	187
319	Anodic degradation of ZnO on soda-lime glass. Solar Energy Materials and Solar Cells, 2013, 117, 569-576.	3.0	3
320	Hydrogen-doped indium oxide/indium tin oxide bilayers for high-efficiency silicon heterojunction solar cells. Solar Energy Materials and Solar Cells, 2013, 115, 151-156.	3.0	153
321	Thin-film silicon solar cells applying optically decoupled back reflectors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 645-650.	1.7	11
322	Infrared light management in high-efficiency silicon heterojunction and rear-passivated solar cells. Journal of Applied Physics, 2013, 113, .	1.1	270
323	High-efficiency microcrystalline silicon single-junction solar cells. Progress in Photovoltaics: Research and Applications, 2013, 21, 821-826.	4.4	90
324	Amorphous/crystalline silicon interface defects induced by hydrogen plasma treatments. Applied Physics Letters, 2013, 102, .	1.5	91

#	ARTICLE	IF	CITATIONS
325	Solar cell efficiency enhancement via light trapping in printable resonant dielectric nanosphere arrays. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 255-260.	0.8	109
326	Current matching optimization in high-efficiency thin-film silicon tandem solar cells. , 2013, , .		8
327	Record Infrared Internal Quantum Efficiency in Silicon Heterojunction Solar Cells With Dielectric/Metal Rear Reflectors. <i>IEEE Journal of Photovoltaics</i> , 2013, 3, 1243-1249.	1.5	92
328	Advanced intermediate reflector layers for thin film silicon tandem solar cells. , 2013, , .		1
329	Analysis of lateral transport through the inversion layer in amorphous silicon/crystalline silicon heterojunction solar cells. <i>Journal of Applied Physics</i> , 2013, 114, 074504.	1.1	54
330	Plasmonic silicon solar cells: impact of material quality and geometry. <i>Optics Express</i> , 2013, 21, A786.	1.7	30
331	Amorphous silicon based betavoltaic devices. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1536, 73-78.	0.1	1
332	Ethanol-enriched low-pressure chemical vapor deposition ZnO bilayers: Properties and growthâ€™A potential electrode for thin film solar cells. <i>Journal of Applied Physics</i> , 2013, 113, 024908.	1.1	4
333	Experimental measurement of lateral transport in the inversion layer of silicon heterojunction solar cells. , 2013, , .		1
334	Compositional study of defects in microcrystalline silicon solar cells using spectral decomposition in the scanning transmission electron microscope. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	20
335	Limit of light coupling strength in solar cells. <i>Applied Physics Letters</i> , 2013, 102, 131113.	1.5	11
336	Comparison of amorphous silicon absorber materials: Light-induced degradation and solar cell efficiency. <i>Journal of Applied Physics</i> , 2013, 114, 154509.	1.1	50
337	Super-Lambertian photocurrent-generation in solar cells with periodically textured interfaces. <i>Applied Physics Letters</i> , 2013, 103, 131108.	1.5	5
338	Back Cover: Solar cell efficiency enhancement via light trapping in printable resonant dielectric nanosphere arrays ( <i>Phys. Status Solidi A</i> 2/2013). <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, .	0.8	0
339	Nanomoulding of Functional Materials, a Versatile Complementary Pattern Replication Method to Nanoimprinting. <i>Journal of Visualized Experiments</i> , 2013, , .	0.2	0
340	Optimization of the asymmetric intermediate reflector morphology for high stabilized efficiency thin n-i-p micromorph solar cells. , 2013, , .		0
341	On the interplay between microstructure and interfaces in high-efficiency microcrystalline silicon solar cells. , 2013, , .		0
342	Relaxing the Conductivity/Transparency Tradeâ€™Off in MOCVD ZnO Thin Films by Hydrogen Plasma. <i>Advanced Functional Materials</i> , 2013, 23, 5177-5182.	7.8	60

#	ARTICLE	IF	CITATIONS
343	Methods to evaluate the effect of water ingress: towards ultra-reliable PV modules. , 2013, , .		1
344	Optimization of advanced surface-textures for thin-film silicon solar cells. , 2013, , .		1
345	Light-trapping in the near field: the case for plasmonic thin-film solar cells. , 2013, , .		0
346	Model-based Quantitative Assessment of Crystallinity and Parasitic Absorption in Microcrystalline Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2012, 1426, 383-387.	0.1	0
347	Diffraction and absorption enhancement from textured back reflectors of thin film solar cells. Journal of Applied Physics, 2012, 112, .	1.1	17
348	Analysis of onset of dislocation nucleation during nanoindentation and nanoscratching of InP. Journal of Materials Research, 2012, 27, 320-329.	1.2	23
349	Excitation of plasmon and guided-mode resonances in thin film silicon solar cells. Materials Research Society Symposia Proceedings, 2012, 1391, 24.	0.1	1
350	Electrically flat/optically rough substrates for efficiencies above 10% in n-i-p thin-film silicon solar cells. Materials Research Society Symposia Proceedings, 2012, 1426, 39-44.	0.1	2
351	Enhanced mobility of hydrogenated MO-LPCVD ZnO contacts for high performances thin film silicon solar cells. Materials Research Society Symposia Proceedings, 2012, 1426, 51-56.	0.1	4
352	Innovative Device Architecture for High Efficiency Thin Film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2012, 1426, 131-135.	0.1	0
353	Light trapping in solar cells: When does a Lambertian scatterer scatter Lambertianly?. Journal of Applied Physics, 2012, 112, .	1.1	30
354	Thin-film silicon triple-junction solar cell with 12.5% stable efficiency on innovative flat light-scattering substrate. Journal of Applied Physics, 2012, 112, .	1.1	55
355	High-efficiency Silicon Heterojunction Solar Cells: A Review. Green, 2012, .	0.4	20
356	Current Losses at the Front of Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2012, 2, 7-15.	1.5	479
357	Measurement of the Open-Circuit Voltage of Individual Subcells in a Dual-Junction Solar Cell. IEEE Journal of Photovoltaics, 2012, 2, 164-168.	1.5	5
358	Nanometer- and Micrometer-Scale Texturing for High-Efficiency Micromorph Thin-Film Silicon Solar Cells. IEEE Journal of Photovoltaics, 2012, 2, 83-87.	1.5	25
359	New Generation Transparent LPCVD ZnO Electrodes for Enhanced Photocurrent in Micromorph Solar Cells and Modules. IEEE Journal of Photovoltaics, 2012, 2, 88-93.	1.5	11
360	Optimization of ZnO Front Electrodes for High-Efficiency Micromorph Thin-Film Si Solar Cells. IEEE Journal of Photovoltaics, 2012, 2, 229-235.	1.5	42

#	ARTICLE	IF	CITATIONS
361	Latest Developments of High-Efficiency Micromorph Tandem Silicon Solar Cells Implementing Innovative Substrate Materials and Improved Cell Design. IEEE Journal of Photovoltaics, 2012, 2, 236-240.	1.5	15
362	Geometric light trapping for high efficiency thin film silicon solar cells. Solar Energy Materials and Solar Cells, 2012, 98, 185-190.	3.0	94
363	Optimization of the asymmetric intermediate reflector morphology for high stabilized efficiency thin n-i-p micromorph solar cells. , 2012, , .		0
364	High Spatial Resolution of Thin-Film-on-ASIC Particle Detectors. IEEE Transactions on Nuclear Science, 2012, 59, 2614-2621.	1.2	4
365	Transparent conductive oxide / encapsulant interface characterization following Damp Heat exposure. , 2012, , .		0
366	Multiscale Transparent Electrode Architecture for Efficient Light Management and Carrier Collection in Solar Cells. Nano Letters, 2012, 12, 1344-1348.	4.5	127
367	On the interplay between microstructure and interfaces in high-efficiency microcrystalline silicon solar cells. , 2012, , .		0
368	Stencil-nanopatterned back reflectors for thin-film amorphous silicon n-i-p solar cells. , 2012, , .		1
369	Damage at hydrogenated amorphous/crystalline silicon interfaces by indium tin oxide overlayer sputtering. Applied Physics Letters, 2012, 101, .	1.5	200
370	Light harvesting schemes for high efficiency thin film silicon solar cells. , 2012, , .		2
371	Light Trapping in Solar Cells: Can Periodic Beat Random?. ACS Nano, 2012, 6, 2790-2797.	7.3	480
372	Experimental Evaluation of the Light Trapping Potential of Optical Nanostructures for Thin-Film Silicon Solar Cells. Energy Procedia, 2012, 15, 206-211.	1.8	9
373	A-Si:H/c-Si heterojunctions: a future mainstream technology for high-efficiency crystalline silicon solar cells?. , 2012, , .		3
374	Control of CVD-deposited ZnO films properties through water/DEZ ratio: Decoupling of electrode morphology and electrical characteristics. Solar Energy Materials and Solar Cells, 2012, 105, 46-52.	3.0	50
375	The development of high performance SnO <sub>2</sub> :F as TCOs for thin film silicon solar cells. Surface and Coatings Technology, 2012, 213, 167-174.	2.2	34
376	Amorphous silicon-based microchannel plates. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 695, 74-77.	0.7	8
377	Charge collection in amorphous silicon solar cells: Cell analysis and simulation of high-efficiency pin devices. Journal of Non-Crystalline Solids, 2012, 358, 2187-2189.	1.5	5
378	Time evolution of surface defect states in hydrogenated amorphous silicon studied by photothermal and photocurrent spectroscopy and optical simulation. Journal of Non-Crystalline Solids, 2012, 358, 2035-2038.	1.5	17

#	ARTICLE	IF	CITATIONS
379	Origin of the Voc enhancement with a p-doped nc-SiOx:H window layer in n-i-p solar cells. Journal of Non-Crystalline Solids, 2012, 358, 1958-1961.	1.5	40
380	Light trapping in solar cells: Analytical modeling. Applied Physics Letters, 2012, 101, . <a display="inline" href="http://www.w3.org/1998/Math/MathML">Kinetics of</a> $\langle \text{Si:H bulk defect and} \langle \text{Si:H} \langle \text{Si interface-state reduction. Physical Review B, 2012,$	1.5	31
381	<a display="inline" href="http://www.w3.org/1998/Math/MathML">Kinetics of</a> $\langle \text{Si:H bulk defect and} \langle \text{Si:H} \langle \text{Si interface-state reduction. Physical Review B, 2012,$	1.1	69
382	High-efficiency Silicon Heterojunction Solar Cells: A Review. Green, 2012, 2, 7-24.	0.4	725
383	UV imprinting for thin film solar cell application. Journal of Optics (United Kingdom), 2012, 14, 024009.	1.0	19
384	Modulated Surface Textures for Enhanced Scattering in Thin-Film Silicon Solar Cells. , 2012, , .		0
385	Insights into the Encapsulation Process of Photovoltaic Modules: GC-MS Analysis on the Curing Step of Poly(ethylene-co-vinyl acetate) (EVA) Encapsulant. Polymers and Polymer Composites, 2012, 20, 665-672.	1.0	3
386	Improvement of the open circuit voltage by modifying the transparent indium-tin oxide front electrode in amorphous n-p solar cells. Progress in Photovoltaics: Research and Applications, 2012, 20, 727-734.	4.4	36
387	A New View of Microcrystalline Silicon: The Role of Plasma Processing in Achieving a Dense and Stable Absorber Material for Photovoltaic Applications. Advanced Functional Materials, 2012, 22, 3665-3671.	7.8	74
388	High-efficiency Amorphous Silicon Solar Cell on a Periodic Nanocone Back Reflector. Advanced Energy Materials, 2012, 2, 628-633.	10.2	212
389	Highly transparent ZnO bilayers by LP-MOCVD as front electrodes for thin-film micromorph silicon solar cells. Solar Energy Materials and Solar Cells, 2012, 98, 331-336.	3.0	38
390	Experimental study of flat light-scattering substrates in thin-film silicon solar cells. Solar Energy Materials and Solar Cells, 2012, 101, 193-199.	3.0	38
391	Variable light biasing method to measure component $V$ characteristics of multi-junction solar cells. Solar Energy Materials and Solar Cells, 2012, 103, 128-133.	3.0	15
392	Silicon Filaments in Silicon Oxide for Next-Generation Photovoltaics. Advanced Materials, 2012, 24, 1182-1186.	11.1	118
393	Light Trapping Limit Revisited: How do Guided Modes Enhance Light Absorption in Solar Cells?. , 2012, , .		0
394	Geometrical Impact on Guided Mode Excitation in Solar Cells. , 2012, , .		0
395	Coupling between radiation and internal modes: light trapping in thin film solar cells with periodic texture. , 2012, , .		0
396	Very fast light-induced degradation of $\langle \text{Si:H} \langle \text{Si(100) interfaces. Physical Review B, 2011, 83, .$	1.1	74

#	ARTICLE	IF	CITATIONS
397	Resonances and absorption enhancement in thin film silicon solar cells with periodic interface texture. <i>Journal of Applied Physics</i> , 2011, 109, 084516.	1.1	64
398	Nanoimprint Lithography for High-Efficiency Thin-Film Silicon Solar Cells. <i>Nano Letters</i> , 2011, 11, 661-665.	4.5	171
399	Nanomoulding of transparent zinc oxide electrodes for efficient light trapping in solar cells. <i>Nature Photonics</i> , 2011, 5, 535-538.	15.6	265
400	Understanding of photocurrent enhancement in real thin film solar cells: towards optimal one-dimensional gratings. <i>Optics Express</i> , 2011, 19, 128.	1.7	54
401	Window layer with p doped silicon oxide for high $V_{oc}$ thin-film silicon n-i-p solar cells. <i>Journal of Applied Physics</i> , 2011, 110, .	1.1	69
402	Control of LPCVD ZnO growth modes for improved light trapping in thin film silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 1031-1034.	3.0	47
403	Conventional and 360 degree electron tomography of a micro-crystalline silicon solar cell. <i>Journal of Physics: Conference Series</i> , 2011, 326, 012057.	0.3	1
404	Enhanced light trapping in realistic thin film solar cells using one-dimensional gratings. <i>Proceedings of SPIE</i> , 2011, , .	0.8	3
405	Highly reflective nanotextured sputtered silver back reflector for flexible high-efficiency n-i-p thin-film silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 3585-3591.	3.0	42
406	Humid environment stability of low pressure chemical vapor deposited boron doped zinc oxide used as transparent electrodes in thin film silicon solar cells. <i>Thin Solid Films</i> , 2011, 520, 558-562.	0.8	34
407	Reduction of the phosphorous cross-contamination in n-i-p solar cells prepared in a single-chamber PECVD reactor. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 606-610.	3.0	15
408	Optimization of thin film silicon solar cells on highly textured substrates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2011, 208, 1863-1868.	0.8	82
409	Back Cover: Optimization of thin film silicon solar cells on highly textured substrates ( <i>Phys. Status</i> ) $T_j$ ETQq1 1 0.784314 $rgBT_j / Overl$ 0.8	0.8	14
410	UV-nanoimprint lithography technique for the replication of back reflectors for n-i-p thin film silicon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2011, 19, 202-210.	4.4	74
411	Photocurrent enhancement in thin film amorphous silicon solar cells with silver nanoparticles. <i>Progress in Photovoltaics: Research and Applications</i> , 2011, 19, 260-265.	4.4	111
412	Realization of high efficiency micromorph tandem silicon solar cells on glass and plastic substrates: Issues and potential. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 127-130.	3.0	24
413	Substrate dependent stability and interplay between optical and electrical properties in $\mu$ c-Si:H single junction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 195-198.	3.0	31
414	Microcrystalline and micromorph device improvements through combined plasma and material characterization techniques. <i>Solar Energy Materials and Solar Cells</i> , 2011, 95, 134-137.	3.0	5



#	ARTICLE	IF	CITATIONS
415	High fidelity transfer of nanometric random textures by UV embossing for thin film solar cells applications. Solar Energy Materials and Solar Cells, 2011, 95, 881-886.	3.0	58
416	LPCVD ZnO-based intermediate reflector for micromorph tandem solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 2161-2166.	3.0	20
417	Effect of debris on the silicon wafering for solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 2490-2496.	3.0	23
418	Enhancement of microcrystalline n-i-p solar cell performance via use of pre-covering layers and H <sub>2</sub> treatment. Thin Solid Films, 2011, 519, 5567-5570.	0.8	0
419	High rate deposition of microcrystalline silicon with silicon oxide doped layers: Highlighting the competing roles of both intrinsic and extrinsic defects on the cells performances. , 2011, , .		1
420	Extended light scattering model incorporating coherence for thin-film silicon solar cells. Journal of Applied Physics, 2011, 110, .	1.1	40
421	Improved amorphous/crystalline silicon interface passivation by hydrogen plasma treatment. Applied Physics Letters, 2011, 99, .	1.5	238
422	Light absorption in textured thin film silicon solar cells: A simple scalar scattering approach versus rigorous simulation. Applied Physics Letters, 2011, 98, .	1.5	22
423	Increasing short-circuit current in silicon heterojunction solar cells. , 2011, , .		0
424	Mixed phase silicon oxide layers for thin-film silicon solar cells. Materials Research Society Symposia Proceedings, 2011, 1321, 349.	0.1	19
425	Reflectance Improvement by Thermal Annealing of Sputtered Ag/ZnO Back Reflectors in a-Si:H Thin Film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2011, 1321, 63.	0.1	0
426	Micromorph thin-film silicon solar cells with transparent high-mobility hydrogenated indium oxide front electrodes. Journal of Applied Physics, 2011, 109, .	1.1	43
427	Excitation of guided-mode resonances in thin film silicon solar cells. Materials Research Society Symposia Proceedings, 2011, 1321, 123.	0.1	13
428	Amorphous Silicon Based Particle Detectors. Materials Research Society Symposia Proceedings, 2011, 1321, 423.	0.1	0
429	Advanced nanostructured materials for pushing light trapping towards the Yablonovitch limit. , 2011, , .		0
430	Nanoscale Analysis by EFTEM and FIB-Tomography for Optimization of Thin-Film Silicon Solar Cells. Microscopy and Microanalysis, 2010, 16, 1336-1337.	0.2	0
431	Efficient nanocoax-based solar cells. Physica Status Solidi - Rapid Research Letters, 2010, 4, 181-183.	1.2	87
432	Unlinking absorption and haze in thin film silicon solar cells front electrodes. Physica Status Solidi - Rapid Research Letters, 2010, 4, 326-328.	1.2	28

#	ARTICLE	IF	CITATIONS
433	Laser applications in thin-film photovoltaics. Applied Physics B: Lasers and Optics, 2010, 100, 427-436.	1.1	35
434	Input silane concentration effect on the a-Si:H to $\hat{1}/4$ c-Si:H transition width. Solar Energy Materials and Solar Cells, 2010, 94, 432-435.	3.0	6
435	Polycrystalline ZnO: B grown by LPCVD as TCO for thin film silicon solar cells. Thin Solid Films, 2010, 518, 2961-2966.	0.8	155
436	Microcrystalline silicon solar cells: effect of substrate temperature on cracks and their role in post-oxidation. Progress in Photovoltaics: Research and Applications, 2010, 18, 491-499.	4.4	56
437	High-rate deposition of microcrystalline silicon in a large-area PECVD reactor and integration in tandem solar cells. Progress in Photovoltaics: Research and Applications, 2010, 18, 257-264.	4.4	4
438	Mechanisms of wafer sawing and impact on wafer properties. Progress in Photovoltaics: Research and Applications, 2010, 18, 563-572.	4.4	65
439	Properties of interfaces in amorphous/crystalline silicon heterojunctions. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 651-656.	0.8	63
440	A New Approach to Light Scattering from Nanotextured Interfaces For Silicon Thin-film Solar Cells. Materials Research Society Symposia Proceedings, 2010, 1245, 1.	0.1	2
441	High-efficiency silicon heterojunction solar cells: From physics to production lines. , 2010, , .		4
442	Micro-Channel Plate Detectors Based on Hydrogenated Amorphous Silicon. Materials Research Society Symposia Proceedings, 2010, 1245, 1.	0.1	5
443	UV-embossed textured back reflector structures for thin film silicon solar cells. Materials Research Society Symposia Proceedings, 2010, 1245, 1.	0.1	0
444	Impact of secondary gas-phase reactions on microcrystalline silicon solar cells deposited at high rate. Applied Physics Letters, 2010, 96, .	1.5	8
445	Efficient light management scheme for thin film silicon solar cells via transparent random nanostructures fabricated by nanoimprinting. Applied Physics Letters, 2010, 96, .	1.5	63
446	Light scattering at nano-textured surfaces in thin film silicon solar cells. , 2010, , .		3
447	Internal electric field and fill factor of amorphous silicon solar cells. , 2010, , .		14
448	Flexible micromorph tandem a-Si/ $\hat{1}/4$ c-Si solar cells. Journal of Applied Physics, 2010, 107, 014507.	1.1	55
449	Photocurrent increase in n-i-p thin film silicon solar cells by guided mode excitation via grating coupler. Applied Physics Letters, 2010, 96, .	1.5	90
450	ZnO transparent conductive oxide for thin film silicon solar cells. Proceedings of SPIE, 2010, , .	0.8	13

#	ARTICLE	IF	CITATIONS
451	Structural, optical, and electrical properties of silicon nanowires for solar cells. , 2010, , .		1
452	Carrier transport and sensitivity issues in heterojunction with intrinsic thin layer solar cells on N-type crystalline silicon: A computer simulation study. Journal of Applied Physics, 2010, 107, 054521.	1.1	60
453	Mixed-phase p-type silicon oxide containing silicon nanocrystals and its role in thin-film silicon solar cells. Applied Physics Letters, 2010, 97, .	1.5	119
454	Resistive interlayer for improved performance of thin film silicon solar cells on highly textured substrate. Applied Physics Letters, 2010, 96, .	1.5	116
455	Comparison and optimization of randomly textured surfaces in thin-film solar cells. Optics Express, 2010, 18, A335.	1.7	138
456	The silane depletion fraction as an indicator for the amorphous/crystalline silicon interface passivation quality. Applied Physics Letters, 2010, 97, .	1.5	90
457	Modeling of light scattering from micro- and nanotextured surfaces. Journal of Applied Physics, 2010, 107, 044504.	1.1	132
458	Photocurrent Increase in Thin Film Solar Cells by Guided Mode Excitation. , 2010, , .		0
459	An RCWA Analysis of Solar Cell Back Reflectors: Comparison between Modelling and Experiment. , 2010, , .		0
460	A New Approach to Light Scattering from Nanotextured Interfaces for Silicon Thin-Film Solar Cells. , 2010, , .		0
461	Influence of pressure and silane depletion on microcrystalline silicon material quality and solar cell performance. Journal of Applied Physics, 2009, 105, 064507.	1.1	29
462	Modification of textured silicon wafer surface morphology for fabrication of heterojunction solar cell with open circuit voltage over 700 mV. , 2009, , .		23
463	Infrared laser-based monitoring of the silane dissociation during deposition of silicon thin films. Applied Physics Letters, 2009, 94, .	1.5	42
464	Influence of the ZnO buffer on the guided mode structure in Si/ZnO/Ag multilayers. Journal of Applied Physics, 2009, 106, .	1.1	50
465	Laser-based plasma diagnostics for PECVD of silicon thin films. , 2009, , .		0
466	Optical emission spectroscopy to diagnose powder formation in SiH <sub>4</sub> -H <sub>2</sub> discharges. , 2009, , .		3
467	Research and developments in thin-film silicon photovoltaics. , 2009, , .		5
468	Light Trapping effects in Thin Film Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2009, 1153, 1.	0.1	9

#	ARTICLE	IF	CITATIONS
469	TCOs for nip thin film silicon solar cells. Progress in Photovoltaics: Research and Applications, 2009, 17, 165-176.	4.4	78
470	Ultra-high quality surface passivation of crystalline silicon wafers in large area parallel plate reactor at 40ÅMHz. Thin Solid Films, 2009, 517, 6401-6404.	0.8	7
471	Development of micromorph tandem solar cells on flexible low-cost plastic substrates. Solar Energy Materials and Solar Cells, 2009, 93, 884-887.	3.0	90
472	Influence of the substrate geometrical parameters on microcrystalline silicon growth for thin-film solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 1714-1720.	3.0	156
473	Asymmetric intermediate reflector for tandem micromorph thin film silicon solar cells. Applied Physics Letters, 2009, 94, .	1.5	75
474	Axial p-n Junctions Realized in Silicon Nanowires by Ion Implantation. Nano Letters, 2009, 9, 1341-1344.	4.5	107
475	Growth Model of MOCVD Polycrystalline ZnO. Crystal Growth and Design, 2009, 9, 4957-4962.	1.4	81
476	Limiting factors in the fabrication of microcrystalline silicon solar cells and microcrystalline/amorphous (â€micromorphâ€™™) tandems. Philosophical Magazine, 2009, 89, 2599-2621.	0.7	18
477	Electrical transport in boronâ€™doped polycrystalline zinc oxide thin films. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1983-1987.	0.8	35
478	Dicing of galliumâ€™arsenide high performance laser diodes for industrial applications. Journal of Materials Processing Technology, 2008, 198, 105-113.	3.1	25
479	Dicing of galliumâ€™arsenide high performance laser diodes for industrial applications. Journal of Materials Processing Technology, 2008, 198, 114-121.	3.1	31
480	Optical management in high-efficiency thin-film silicon micromorph solar cells with a silicon oxide based intermediate reflector. Physica Status Solidi - Rapid Research Letters, 2008, 2, 163-165.	1.2	102
481	Stretched-exponential a-Si:Hâ€™c-Si interface recombination decay. Applied Physics Letters, 2008, 93, .	1.5	123
482	Relation between substrate surface morphology and microcrystalline silicon solar cell performance. Journal of Non-Crystalline Solids, 2008, 354, 2258-2262.	1.5	190
483	Micromorph tandem solar cells grown at high rate with in-situ intermediate reflector in industrial KAI PECVD reactors. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	0
484	Silane depletion dependent ion bombardment and material quality of microcrystalline silicon deposited by VHF-PECVD. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	0
485	Optical developments for silicon thin film solar cells in the substrate configuration. Materials Research Society Symposia Proceedings, 2008, 1101, 1.	0.1	1
486	N/I buffer layer for substrate microcrystalline thin film silicon solar cell. Journal of Applied Physics, 2008, 104, 104505.	1.1	29

#	ARTICLE	IF	CITATIONS
487	Conducting two-phase silicon oxide layers for thin-film silicon solar cells. Materials Research Society Symposia Proceedings, 2008, 1123, 9.	0.1	0
488	Micro Photovoltaic Modules for Micro Systems. Materials Research Society Symposia Proceedings, 2008, 1066, 1.	0.1	2
489	Periodic textures for enhanced current in thin film silicon solar cells. Materials Research Society Symposia Proceedings, 2008, 1101, 1.	0.1	7
490	Plasmonic absorption in textured silver back reflectors of thin film solar cells. Journal of Applied Physics, 2008, 104, .	1.1	185
491	Kinetics of creation and of thermal annealing of light-induced defects in microcrystalline silicon solar cells. Journal of Applied Physics, 2008, 103, .	1.1	12
492	Optimization of amorphous silicon thin film solar cells for flexible photovoltaics. Journal of Applied Physics, 2008, 103, .	1.1	147
493	Performance and Transient Behavior of Vertically Integrated Thin-film Silicon Sensors. Sensors, 2008, 8, 4656-4668.	2.1	4
494	TEM characterization of textured silicon heterojunction solar cells. , 2008, , 335-336.		1
495	<i>In situ</i> silicon oxide based intermediate reflector for thin-film silicon micromorph solar cells. Applied Physics Letters, 2007, 91, .	1.5	219
496	Fracture strength and Young's modulus of ZnO nanowires. Nanotechnology, 2007, 18, 205503.	1.3	130
497	Transition between grain boundary and intragrain scattering transport mechanisms in boron-doped zinc oxide thin films. Applied Physics Letters, 2007, 90, 142107.	1.5	230
498	Model for a-Si:H/c-Si interface recombination based on the amphoteric nature of silicon dangling bonds. Physical Review B, 2007, 76, .	1.1	238
499	Microcrystalline silicon deposited at high rate on large areas from pure silane with efficient gas utilization. Solar Energy Materials and Solar Cells, 2007, 91, 495-502.	3.0	35
500	Temperature dependence of the conductivity in large-grained boron-doped ZnO films. Solar Energy Materials and Solar Cells, 2007, 91, 1269-1274.	3.0	60
501	Opto-electronic properties of rough LP-CVD ZnO:B for use as TCO in thin-film silicon solar cells. Thin Solid Films, 2007, 515, 8558-8561.	0.8	202
502	Microcrystalline Silicon Solar Cells: Theory and Diagnostic Tools. , 2006, , .		9
503	Ultra-Light Amorphous Silicon Cell for Space Applications. , 2006, , .		7
504	Micromorph Solar Cell Optimization using a ZnO Layer as Intermediate Reflector. , 2006, , .		19

#	ARTICLE	IF	CITATIONS
505	High-Efficiency P-I-N Microcrystalline and Micromorph Thin Film Silicon Solar Cells Deposited on LPCVD ZnO Coated Glass Substrates. , 2006, , .		55
506	Measurement of the Bending Strength of Vaporâ~Liquidâ~Solid Grown Silicon Nanowires. Nano Letters, 2006, 6, 622-625.	4.5	258
507	Radiation hardness of amorphous silicon particle sensors. Journal of Non-Crystalline Solids, 2006, 352, 1797-1800.	1.5	30
508	Proton-induced degradation of thin-film microcrystalline silicon solar cells. Journal of Non-Crystalline Solids, 2006, 352, 1851-1854.	1.5	9
509	Determination of Raman emission cross-section ratio in hydrogenated microcrystalline silicon. Journal of Non-Crystalline Solids, 2006, 352, 1200-1203.	1.5	43
510	Characterization of a thick layer a-Si:H pixel detector with TFA technology using a scanning electron microscope. Journal of Non-Crystalline Solids, 2006, 352, 1832-1836.	1.5	0
511	Characterisation of rough reflecting substrates incorporated into thin-film silicon solar cells. Progress in Photovoltaics: Research and Applications, 2006, 14, 485-498.	4.4	28
512	Selective etching of n-InP(100) triggered at surface dislocations induced by nanoscratching. Electrochimica Acta, 2006, 51, 2182-2187.	2.6	13
513	Numerical Simulation of Microcrystalline Silicon Growth on Structured Substrate. Materials Research Society Symposia Proceedings, 2006, 910, 2.	0.1	3
514	Image Sensors Based on Thin-film on CMOS Technology: Additional Leakage Currents due to Vertical Integration of the a-Si:H Diodes. Materials Research Society Symposia Proceedings, 2006, 910, 3.	0.1	7
515	Boron Doping Effects on the Electro-optical Properties of Zinc Oxide Thin Films Deposited by Low-Pressure Chemical Vapor Deposition Process. Materials Research Society Symposia Proceedings, 2006, 928, 1.	0.1	4
516	Cleavage Fracture of Brittle Semiconductors from the Nanometre to the Centimetre Scale. Advanced Engineering Materials, 2005, 7, 309-317.	1.6	44
517	Deformation mechanisms of silicon during nanoscratching. Physica Status Solidi (A) Applications and Materials Science, 2005, 202, 2858-2869.	0.8	102
518	Impact of metal silicide precipitate dissolution during rapid thermal processing of multicrystalline silicon solar cells. Applied Physics Letters, 2005, 87, 121918.	1.5	69
519	Radiation hard amorphous silicon particle sensors. Materials Research Society Symposia Proceedings, 2005, 862, 1541.	0.1	3
520	Vertical integration of hydrogenated amorphous silicon devices on CMOS circuits. Materials Research Society Symposia Proceedings, 2005, 869, 111.	0.1	14
521	Light-induced degradation of thin film amorphous and microcrystalline silicon solar cells. , 2005, , .		16
522	Fracture mechanisms of GaAs under nanoscratching. Materials Research Society Symposia Proceedings, 2004, 841, R9.15.1.	0.1	3

#	ARTICLE	IF	CITATIONS
523	Solar glass with industrial porous SiO <sub>2</sub> antireflection coating: measurements of photovoltaic module properties improvement and modelling of yearly energy yield gain. <i>Solar Energy Materials and Solar Cells</i> , 2004, 82, 331-344.	3.0	86
524	Local series resistance mapping of silicon solar cells by microwave photoconductivity decay measurements. <i>Progress in Photovoltaics: Research and Applications</i> , 2003, 11, 309-317.	4.4	4
525	Silver thick-film contacts on highly doped n-type silicon emitters: Structural and electronic properties of the interface. <i>Applied Physics Letters</i> , 2003, 82, 1878-1880.	1.5	257
526	Record fast thermal processing of 17.5% efficient silicon solar cells. <i>Semiconductor Science and Technology</i> , 2002, 17, 677-681.	1.0	9
527	Cross-sectional electrostatic force microscopy of thin-film solar cells. <i>Journal of Applied Physics</i> , 2001, 89, 1418-1424.	1.1	41
528	Cross-sectional atomic force microscopy imaging of polycrystalline thin films. <i>Ultramicroscopy</i> , 2000, 85, 61-71.	0.8	18
529	Photocatalytic degradation of phenol by TiO <sub>2</sub> thin films prepared by sputtering. <i>Applied Catalysis B: Environmental</i> , 2000, 25, 83-92.	10.8	151
530	Alternative procedure for the fabrication of close-spaced sublimated CdTe solar cells. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2000, 18, 1599-1603.	0.9	23
531	Optical and electrical properties of semiconducting WS <sub>2</sub> thin films: From macroscopic to local probe measurements. <i>Solar Energy Materials and Solar Cells</i> , 1999, 57, 189-207.	3.0	64
532	Stabilization of the rhombohedral polytype in MoS <sub>2</sub> and WS <sub>2</sub> microtubes: TEM and AFM study. <i>Surface Science</i> , 1999, 433-435, 637-641.	0.8	51
533	The Nature and Origin of Lateral Composition Modulations in Short-Period Strained-Layer Superlattices. <i>Materials Research Society Symposia Proceedings</i> , 1999, 583, 297.	0.1	11
534	In situ TEM observation of nickel promoted WS <sub>2</sub> thin-film crystallization. <i>Journal of Crystal Growth</i> , 1998, 193, 109-113.	0.7	8
535	New Crystal Structures of WS <sub>2</sub> : Microtubes, Ribbons, and Ropes. <i>Advanced Materials</i> , 1998, 10, 246-249.	11.1	140
536	Submicron contacts for electrical characterization of semiconducting WS <sub>2</sub> thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1998, 16, 1239-1243.	0.9	11
537	New Crystal Structures of WS <sub>2</sub> : Microtubes, Ribbons, and Ropes. , 1998, 10, 246.		1
538	New Crystal Structures of WS <sub>2</sub> : Microtubes, Ribbons, and Ropes. , 1998, 10, 246.		12
539	Crystallinity and texture promotion in WS <sub>2</sub> thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1997, 15, 2323-2329.	0.9	30
540	Preparation and Photoelectrochemistry of Semiconducting WS <sub>2</sub> Thin Films. <i>Journal of Physical Chemistry B</i> , 1997, 101, 2485-2490.	1.2	43

#	ARTICLE	IF	CITATIONS
541	Nanosopic trigonal pyramidal crystallites in WS <sub>2</sub> sputtered thin films: a scanning tunnelling microscopy study of initial growth. <i>Surface Science</i> , 1996, 366, L703-L708.	0.8	7
542	Preparation and characterization of highly oriented, photoconducting WS <sub>2</sub> thin films. <i>Applied Physics A: Materials Science and Processing</i> , 1996, 62, 543-546.	1.1	34
543	Structural, chemical, and electrical characterisation of reactively sputtered WS <sub>x</sub> thin films. <i>Thin Solid Films</i> , 1996, 280, 67-75.	0.8	89
544	Preparation and characterization of highly oriented, photoconducting WS <sub>2</sub> thin films. <i>Applied Physics A: Materials Science and Processing</i> , 1996, 62, 543-546.	1.1	18
545	Study of CdTe/CdS solar cells using CSS CdTe deposited at low temperature. , 0, , .		9
546	Efficient semitransparent perovskite minimodule with highly transparent and conductive multilayer electrode. , 0, , .		0
547	Photoinduced Halide Segregation and Diffusion in Mixed-halide Perovskite Solar Cells. , 0, , .		0
548	Stability of perovskite and two terminal Si/perovskite tandem solar cells under reverse bias. , 0, , .		0
549	A nanometric view on performance-loss mechanisms in perovskite/c-Si multi-junction solar cells. , 0, , .		0
550	Degradation due to Transverse Ion Migration in Perovskite Devices. , 0, , .		0