

Miro Zeman

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

322
papers

7,336
citations

41
h-index

72
g-index

365
ext. papers

8,488
ext. citations

5.1
avg, IF

6.25
L-index

#	Paper	IF	Citations
322	Ray-optics study of gentle non-conformal texture morphologies for perovskite/silicon tandems.. <i>Optics Express</i> , 2022 , 30, 5608-5617	3.3	1
321	Mapping the photovoltaic potential of the roads including the effect of traffic. <i>Renewable Energy</i> , 2022 , 182, 427-442	8.1	2
320	Thin-Film Silicon PV Technology 2021 ,		
319	Comparing optical performance of a wide range of perovskite/silicon tandem architectures under real-world conditions. <i>Nanophotonics</i> , 2021 , 10, 2043-2057	6.3	4
318	Passivation Enhancement of Poly-Si Carrier-Selective Contacts by Applying ALD Al ₂ O ₃ Capping Layers. <i>IEEE Journal of Photovoltaics</i> , 2021 , 1-8	3.7	2
317	Advanced method for electrical characterization of carrier-selective passivating contacts using transfer-length-method measurements under variable illumination. <i>Journal of Applied Physics</i> , 2021 , 129, 195707	2.5	1
316	Photovoltaics: intelligent PV-based devices for energy and information applications. <i>Energy and Environmental Science</i> , 2021 , 14, 106-126	35.4	11
315	Strategy to mitigate the dipole interfacial states in (i)a-Si:H/MoOx passivating contacts solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2021 , 29, 391-400	6.8	2
314	Design and optimization of hole collectors based on nc-SiO ₂ :H for high-efficiency silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 219, 110779	6.4	8
313	Room-temperature sputtered tungsten-doped indium oxide for improved current in silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 227, 111082	6.4	9
312	Solar cells based on n ⁺ -AZO/p-BaSi ₂ heterojunction: Advanced opto-electrical modelling and experimental demonstration. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 230, 111181	6.4	4
311	Simulation study of the electrical yield of various PV module topologies in partially shaded urban scenarios. <i>Solar Energy</i> , 2021 , 225, 726-733	6.8	6
310	A fully reconfigurable series-parallel photovoltaic module for higher energy yields in urban environments. <i>Renewable Energy</i> , 2021 , 179, 1-11	8.1	4
309	Interdigitated back-contacted structure: A different approach towards high-efficiency ultrathin copper indium gallium (di)selenide solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 899-908	6.8	4
308	The role of heterointerfaces and subgap energy states on transport mechanisms in silicon heterojunction solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 935-945	6.8	19
307	Optical characterization of poly-SiO _x and poly-SiC _x carrier-selective passivating contacts. <i>Solar Energy Materials and Solar Cells</i> , 2020 , 210, 110507	6.4	5
306	Point defects in BaSi ₂ thin films for photovoltaic applications studied by positron annihilation spectroscopy. <i>Journal of Applied Physics</i> , 2020 , 127, 085304	2.5	6

305	Doped hydrogenated nanocrystalline silicon oxide layers for high-efficiency c-Si heterojunction solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 425-435	6.8	21
304	The Long Road to Universal Electrification: A Critical Look at Present Pathways and Challenges. <i>Energies</i> , 2020 , 13, 508	3.1	7
303	Transparent silicon carbide/tunnel SiO ₂ passivation for c-Si solar cell front side: Enabling J _{sc} > 42 mA/cm ² and iV _{oc} of 742 mV. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 321-327	6.8	12
302	Effective Passivation of Black Silicon Surfaces via Plasma-Enhanced Chemical Vapor Deposition Grown Conformal Hydrogenated Amorphous Silicon Layer. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020 , 14, 1900087	2.5	9
301	Copper-Plating Metallization With Alternative Seed Layers for c-Si Solar Cells Embedding Carrier-Selective Passivating Contacts. <i>IEEE Journal of Photovoltaics</i> , 2020 , 10, 372-382	3.7	8
300	Photovoltaic chimney: Thermal modeling and concept demonstration for integration in buildings. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 465-482	6.8	4
299	The Dutch PV portal 2.0: An online photovoltaic performance modeling environment for the Netherlands. <i>Renewable Energy</i> , 2020 , 154, 175-186	8.1	2
298	A quick-scan method to assess photovoltaic rooftop potential based on aerial imagery and LiDAR. <i>Solar Energy</i> , 2020 , 209, 96-107	6.8	14
297	Sub-gap defect density characterization of molybdenum oxide: An annealing study for solar cell applications. <i>Nano Research</i> , 2020 , 13, 3416-3424	10	11
296	Realizing the Potential of RF-Sputtered Hydrogenated Fluorine-Doped Indium Oxide as an Electrode Material for Ultrathin SiO _x /Poly-Si Passivating Contacts. <i>ACS Applied Energy Materials</i> , 2020 , 3, 8606-8618	6.1	4
295	Stochastic load profile construction for the multi-tier framework for household electricity access using off-grid DC appliances. <i>Energy Efficiency</i> , 2020 , 13, 197-215	3	18
294	Implantation-based passivating contacts for crystalline silicon front/rear contacted solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 403-416	6.8	11
293	A comprehensive albedo model for solar energy applications: Geometric spectral albedo. <i>Applied Energy</i> , 2019 , 255, 113867	10.7	12
292	A simplified skyline-based method for estimating the annual solar energy potential in urban environments. <i>Nature Energy</i> , 2019 , 4, 206-215	62.3	43
291	Fast and accurate ray-casting-based view factor estimation method for complex geometries. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 200, 109934	6.4	7
290	Selection Map for PV Module Installation Based on Shading Tolerability and Temperature Coefficient. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 872-880	3.7	6
289	Exploring the boundaries of Solar Home Systems (SHS) for off-grid electrification: Optimal SHS sizing for the multi-tier framework for household electricity access. <i>Applied Energy</i> , 2019 , 240, 907-917	10.7	24
288	High temperature oxidation pre-treatment of textured c-Si wafers passivated by a-Si:H. <i>Materials Science in Semiconductor Processing</i> , 2019 , 97, 67-70	4.3	1

287	Quantifying the Benefits of a Solar Home System-Based DC Microgrid for Rural Electrification. <i>Energies</i> , 2019 , 12, 938	3.1	13
286	Front and rear contact Si solar cells combining high and low thermal budget Si passivating contacts. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 194, 28-35	6.4	16
285	Optical study of back-contacted CIGS solar cells. <i>Optics Express</i> , 2019 , 27, A269-A279	3.3	3
284	Solar harvesting based on perfect absorbing all-dielectric nanoresonators on a mirror. <i>Optics Express</i> , 2019 , 27, A967-A980	3.3	9
283	Geometrical optimisation of core-shell nanowire arrays for enhanced absorption in thin crystalline silicon heterojunction solar cells. <i>Beilstein Journal of Nanotechnology</i> , 2019 , 10, 322-331	3	7
282	Numerical Simulations of IBC Solar Cells Based on Poly-Si Carrier-Selective Passivating Contacts. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 374-384	3.7	13
281	High-Mobility Hydrogenated Fluorine-Doped Indium Oxide Film for Passivating Contacts c-Si Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 45586-45595	9.5	13
280	Designing a hybrid thin-film/wafer silicon triple photovoltaic junction for solar water splitting. <i>Progress in Photovoltaics: Research and Applications</i> , 2019 , 27, 245-254	6.8	7
279	Optical optimization of a multi-layer wideband anti-reflection coating using porous MgF2 for sub-micron-thick CIGS solar cells. <i>Solar Energy</i> , 2019 , 177, 59-67	6.8	18
278	Optimization of Three-Terminal Perovskite/Silicon Tandem Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 446-451	3.7	20
277	Advanced light management techniques for two-terminal hybrid tandem solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 181, 77-82	6.4	9
276	Improving the Back Surface Field on an Amorphous Silicon Carbide Thin-Film Photocathode for Solar Water Splitting. <i>ChemSusChem</i> , 2018 , 11, 1797-1804	8.3	5
275	Advanced light trapping scheme in decoupled front and rear textured thin-film silicon solar cells. <i>Solar Energy</i> , 2018 , 162, 344-356	6.8	29
274	Harvesting Roadway Solar Energy Performance of the Installed Infrastructure Integrated PV Bike Path. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 1066-1073	3.7	30
273	Quenching Mo optical losses in CIGS solar cells by a point contacted dual-layer dielectric spacer: a 3-D optical study. <i>Optics Express</i> , 2018 , 26, A39-A53	3.3	7
272	Estimating battery lifetimes in Solar Home System design using a practical modelling methodology. <i>Applied Energy</i> , 2018 , 228, 1629-1639	10.7	41
271	Positron Annihilation Studies on the Damp Heat Degradation of ZnO:Al Transparent Conductive Oxide Layers for CIGS Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 1847-1851	3.7	6
270	Distinguishing Fabry-Perot from guided resonances in thin periodically-textured silicon absorbers. <i>Optics Express</i> , 2018 , 26, A737-A749	3.3	2

269	Oxidation-Induced Structure Transformation: Thin-Film Synthesis and Interface Investigations of Barium Disilicide toward Potential Photovoltaic Applications. <i>ACS Applied Energy Materials</i> , 2018 , 1, 3267-3276	6.1	13
268	High-efficiency black IBC c-Si solar cells with poly-Si as carrier-selective passivating contacts. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 186, 9-13	6.4	16
267	Evolution and role of vacancy clusters at grain boundaries of ZnO:Al during accelerated degradation of Cu(In,Ga)Se ₂ solar cells revealed by positron annihilation. <i>Physical Review Materials</i> , 2018 , 2,	3.2	3
266	Constructing Accurate Equivalent Electrical Circuit Models of Lithium Iron Phosphate and Lead-Acid Battery Cells for Solar Home System Applications. <i>Energies</i> , 2018 , 11, 2305	3.1	13
265	Electrochemical Oxidation of Organic Pollutants Powered by a Silicon-Based Solar Cell. <i>ACS Omega</i> , 2018 , 3, 14392-14398	3.9	3
264	Poly-crystalline silicon-oxide films as carrier-selective passivating contacts for c-Si solar cells. <i>Applied Physics Letters</i> , 2018 , 112, 193904	3.4	22
263	A modeling methodology to evaluate the impact of temperature on Solar Home Systems for rural electrification 2018 ,		4
262	Theoretical evaluation of contact stack for high efficiency IBC-SHJ solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 186, 66-77	6.4	38
261	Migration of Open Volume Deficiencies in Hydrogenated Amorphous Silicon During Annealing. <i>IEEE Journal of Photovoltaics</i> , 2017 , 7, 421-429	3.7	14
260	Thin-film amorphous silicon germanium solar cells with p- and n-type hydrogenated silicon oxide layers. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 163, 9-14	6.4	15
259	Opto-electrical modelling and optimization study of a novel IBC c-Si solar cell. <i>Progress in Photovoltaics: Research and Applications</i> , 2017 , 25, 452-469	6.8	27
258	GenPro4 Optical Model for Solar Cell Simulation and Its Application to Multijunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2017 , 7, 919-926	3.7	58
257	Passivation mechanism in silicon heterojunction solar cells with intrinsic hydrogenated amorphous silicon oxide layers. <i>Journal of Applied Physics</i> , 2017 , 121, 085306	2.5	6
256	Hydrogenated amorphous silicon oxide (a-SiO _x :H) single junction solar cell with 8.8% initial efficiency by reducing parasitic absorptions. <i>Journal of Applied Physics</i> , 2017 , 121, 133103	2.5	4
255	Electron tomography analysis of 3D interfacial nanostructures appearing in annealed Si rich SiC films. <i>Nanoscale</i> , 2017 , 9, 6703-6710	7.7	4
254	Treatment of Organic Pollutants Using a Solar Energy Driven Photo-Oxidation Device. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1700010	5.9	1
253	Calculation of irradiance distribution on PV modules by combining sky and sensitivity maps. <i>Solar Energy</i> , 2017 , 150, 49-54	6.8	7
252	Determination of the temperature dependency of the electrical parameters of CIGS solar cells. <i>Journal of Renewable and Sustainable Energy</i> , 2017 , 9, 021205	2.5	16

251	Understanding the present and the future electricity needs: Consequences for design of future Solar Home Systems for off-grid rural electrification 2017 ,		7
250	Quadruple-Junction Thin-Film Silicon Solar Cells Using Four Different Absorber Materials. <i>Solar Rrl</i> , 2017 , 1, 1700036	7.1	5
249	New insights into the nanostructure of innovative thin film solar cells gained by positron annihilation spectroscopy. <i>Journal of Physics: Conference Series</i> , 2017 , 791, 012021	0.3	1
248	Ultra-thin LiF Layer As The Electron Collector For a-Si:H Based Photovoltaic Cell. <i>MRS Advances</i> , 2017 , 2, 863-867	0.7	1
247	Light-Induced Effects on the a-Si:H/c-Si Heterointerface. <i>IEEE Journal of Photovoltaics</i> , 2017 , 7, 656-664	3.7	2
246	Poly-Si(O) _x passivating contacts for high-efficiency c-Si IBC solar cells. <i>Energy Procedia</i> , 2017 , 124, 392-399	2.3	13
245	Too Many Junctions? A Case Study of Multijunction Thin-Film Silicon Solar Cells. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1700077	5.9	8
244	Silicon Solar Cell Architecture with Front Selective and Rear Full Area Ion-Implanted Passivating Contacts. <i>Solar Rrl</i> , 2017 , 1, 1700040	7.1	13
243	Quantification of Shading Tolerability for Photovoltaic Modules. <i>IEEE Journal of Photovoltaics</i> , 2017 , 7, 1390-1399	3.7	19
242	Surface passivation of n-type doped black silicon by atomic-layer-deposited SiO ₂ /Al ₂ O ₃ stacks. <i>Applied Physics Letters</i> , 2017 , 110, 263106	3.4	12
241	Periodic and Random Substrate Textures for Liquid-Phase Crystallized Silicon Thin-Film Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2017 , 7, 85-90	3.7	8
240	Artifact Interpretation of Spectral Response Measurements on Two-Terminal Multijunction Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1601930	21.8	3
239	. <i>IEEE Journal of Emerging and Selected Topics in Power Electronics</i> , 2017 , 5, 610-623	5.6	43
238	Back-contacted BaSi ₂ solar cells: an optical study. <i>Optics Express</i> , 2017 , 25, A402-A408	3.3	19
237	Optical Analysis of Poly-Si and Poly-SiO _x Carrier-Selective Passivating Contacts for c-Si Solar Cells 2017 ,		2
236	Thin-Film Amorphous Silicon Nanopillar Solar Cells: An Investigation of the Optical Potential 2017 ,		1
235	Quantification of Valleys of Randomly Textured Substrates as a Function of Opening Angle: Correlation to the Defect Density in Intrinsic nc-Si:H. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 20660-6	9.5	1
234	Minimizing optical losses in monolithic perovskite/c-Si tandem solar cells with a flat top cell. <i>Optics Express</i> , 2016 , 24, A1288-99	3.3	83

233	Implementation of dynamic charging and V2G using Chademo and CCS/Combo DC charging standard 2016 ,		24
232	Advanced light management based on periodic textures for Cu(In,Ga)Se2 thin-film solar cells. <i>Optics Express</i> , 2016 , 24, A693-707	3.3	28
231	Decoupled front/back dielectric textures for flat ultra-thin c-Si solar cells. <i>Optics Express</i> , 2016 , 24, A708-719	3.19	14
230	Economic and CO2 Emission Benefits of a Solar Powered Electric Vehicle Charging Station for Workplaces in the Netherlands 2016 ,		9
229	Simplified process for high efficiency, self-aligned IBC c-Si solar cells combining ion implantation and epitaxial growth: Design and fabrication. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 157, 354-365	6.4	22
228	Highly Efficient Hybrid Polymer and Amorphous Silicon Multijunction Solar Cells with Effective Optical Management. <i>Advanced Materials</i> , 2016 , 28, 2170-7	24	34
227	System design for a solar powered electric vehicle charging station for workplaces. <i>Applied Energy</i> , 2016 , 168, 434-443	10.7	204
226	Optimized Metal-Free Back Reflectors for High-Efficiency Open Rear c-Si Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 34-40	3.7	7
225	Influence of Mo/MoSe2 microstructure on the damp heat stability of the Cu(In,Ga)Se2 back contact molybdenum. <i>Thin Solid Films</i> , 2016 , 612, 381-392	2.2	11
224	Developing for developing nations: Exploring an affordable solar home system design 2016 ,		7
223	Temperature dependency of the silicon heterojunction lifetime model based on the amphoteric nature of dangling bonds. <i>AIP Advances</i> , 2016 , 6, 115118	1.5	3
222	Photoelectrocatalytic oxidation of phenol for water treatment using a BiVO4 thin-film photoanode. <i>Journal of Materials Research</i> , 2016 , 31, 2627-2639	2.5	12
221	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. <i>Journal of Applied Physics</i> , 2016 , 119, 235307	2.5	12
220	Damp heat related degradation mechanisms within CIGS solar cells 2016 ,		2
219	Solar fuel production by using PV/PEC junctions based on earth-abundant materials 2016 ,		1
218	Design and application of ion-implanted polySi passivating contacts for interdigitated back contact c-Si solar cells. <i>Applied Physics Letters</i> , 2016 , 108, 033903	3.4	37
217	IBC c-Si solar cells based on ion-implanted poly-silicon passivating contacts. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 158, 84-90	6.4	64
216	MoOx Hole Collection Layer for a-Si:H Based Photovoltaic Cells. <i>MRS Advances</i> , 2016 , 1, 977-983	0.7	4

215	A thin-film silicon/silicon hetero-junction hybrid solar cell for photoelectrochemical water-reduction applications. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 150, 82-87	6.4	15
214	Organometallic halide perovskite/barium di-silicide thin-film double-junction solar cells 2016 ,		12
213	A thin-film silicon based photocathode with a hydrogen doped TiO ₂ protection layer for solar hydrogen evolution. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 16841-16848	13	26
212	Optimizing Silicon Oxide Embedded Silicon Nanocrystal Inter-particle Distances. <i>Nanoscale Research Letters</i> , 2016 , 11, 355	5	1
211	Shrinking of silicon nanocrystals embedded in an amorphous silicon oxide matrix during rapid thermal annealing in a forming gas atmosphere. <i>Nanotechnology</i> , 2016 , 27, 365601	3.4	6
210	Nano-cones on micro-pyramids: modulated surface textures for maximal spectral response and high-efficiency solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 1649-1659	6.8	67
209	Raman study of laser-induced heating effects in free-standing silicon nanocrystals. <i>Nanoscale</i> , 2015 , 7, 8389-97	7.7	32
208	Structural and electrical properties of metastable defects in hydrogenated amorphous silicon. <i>Physical Review B</i> , 2015 , 91,	3.3	18
207	Fabrication of double- and triple-junction solar cells with hydrogenated amorphous silicon oxide (a-SiO _x :H) top cell. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 141, 148-153	6.4	20
206	A low-temperature synthesis of electrochemical active Pt nanoparticles and thin films by atomic layer deposition on Si(111) and glassy carbon surfaces. <i>Thin Solid Films</i> , 2015 , 586, 28-34	2.2	11
205	The impact of alkali elements on the degradation of CIGS solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 537-545	6.8	43
204	Extracting large photovoltages from a-SiC photocathodes with an amorphous TiO ₂ front surface field layer for solar hydrogen evolution. <i>Energy and Environmental Science</i> , 2015 , 8, 1585-1593	35.4	68
203	Surface passivation of c-Si for silicon heterojunction solar cells using high-pressure hydrogen diluted plasmas. <i>AIP Advances</i> , 2015 , 5, 097165	1.5	17
202	Ambiguities in optical simulations of nanotextured thin-film solar cells using the finite-element method. <i>Optics Express</i> , 2015 , 23, A1060-71	3.3	11
201	Size control, quantum confinement, and oxidation kinetics of silicon nanocrystals synthesized at a high rate by expanding thermal plasma. <i>Applied Physics Letters</i> , 2015 , 106, 213106	3.4	3
200	Comparison of system architecture and converter topology for a solar powered electric vehicle charging station 2015 ,		24
199	Optical characterization and density of states determination of silicon nanocrystals embedded in amorphous silicon based matrix. <i>Journal Physics D: Applied Physics</i> , 2015 , 48, 325302	3	5
198	Development of a-SiO _x :H solar cells with very high Voc \times FF product. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 671-684	6.8	20

197	Modulated surface textured glass as substrate for high efficiency microcrystalline silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 133, 156-162	6.4	19
196	A novel way of texturing glass for microcrystalline silicon thin film solar cells application. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 1283-1290	6.8	8
195	Wide bandgap p-type nanocrystalline silicon oxide as window layer for high performance thin-film silicon multi-junction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 132, 597-605	6.4	66
194	Solar powered infotainment spot: design, feasibility study and fabrication of an autonomous PV system. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1771, 51-57		0
193	Comprehensive modelling and sizing of PV systems from location to load. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1771, 17-23		4
192	Highly transparent modulated surface textured front electrodes for high-efficiency multijunction thin-film silicon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 949-963	6.8	40
191	Gradient dopant profiling and spectral utilization of monolithic thin-film silicon photoelectrochemical tandem devices for solar water splitting. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 4155-4162	13	31
190	High pressure processing of hydrogenated amorphous silicon solar cells: Relation between nanostructure and high open-circuit voltage. <i>Applied Physics Letters</i> , 2015 , 106, 043905	3.4	18
189	The impact of atmospheric species on the degradation of CIGS solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 141, 49-56	6.4	15
188	Nanocrystal size distribution analysis from transmission electron microscopy images. <i>Nanoscale</i> , 2015 , 7, 20593-606	7.7	7
187	Degradation of CIGS solar cells due to the migration of alkali-elements 2015 ,		9
186	In-situ monitoring of the accelerated performance degradation of thin film solar cells 2015 ,		2
185	Thin-film silicon-based quadruple junction solar cells approaching 20% conversion efficiency. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 129, 82-89	6.4	50
184	Full-wave optoelectrical modeling of optimized flattened light-scattering substrate for high efficiency thin-film silicon solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2014 , 22, 671-689	6.8	29
183	Determination of defect density of state distribution of amorphous silicon solar cells by temperature derivative capacitance-frequency measurement. <i>Journal of Applied Physics</i> , 2014 , 115, 034512	2.5	4
182	Influence of transparent conductive oxides on passivation of a-Si:H/c-Si heterojunctions as studied by atomic layer deposited Al-doped ZnO. <i>Semiconductor Science and Technology</i> , 2014 , 29, 122001	1.8	35
181	Optical Enhancement of Silicon Heterojunction Solar Cells With Hydrogenated Amorphous Silicon Carbide Emitter. <i>IEEE Journal of Photovoltaics</i> , 2014 , 4, 1326-1330	3.7	20
180	The Nature and the Kinetics of Light-Induced Defect Creation in Hydrogenated Amorphous Silicon Films and Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2014 , 4, 1331-1336	3.7	23

179	Optimization of amorphous silicon double junction solar cells for an efficient photoelectrochemical water splitting device based on a bismuth vanadate photoanode. <i>Physical Chemistry Chemical Physics</i> , 2014 , 16, 4220-9	3.6	39
178	Study of the effect of boron doping on the solid phase crystallisation of hydrogenated amorphous silicon films. <i>Thin Solid Films</i> , 2014 , 568, 38-43	2.2	5
177	Efficient water-splitting device based on a bismuth vanadate photoanode and thin-film silicon solar cells. <i>ChemSusChem</i> , 2014 , 7, 2832-8	8.3	130
176	Experimental Demonstration of 4n2 Classical Absorption Limit in Nanotextured Ultrathin Solar Cells with Dielectric Omnidirectional Back Reflector. <i>ACS Photonics</i> , 2014 , 1, 270-278	6.3	76
175	The Optical Spectra of a-Si:H and a-SiC:H Thin Films Measured by the Absolute Photothermal Deflection Spectroscopy (PDS). <i>Solid State Phenomena</i> , 2014 , 213, 19-28	0.4	14
174	Physical and chemical degradation behavior of sputtered aluminum doped zinc oxide layers for Cu(In,Ga)Se ₂ solar cells. <i>Thin Solid Films</i> , 2014 , 550, 530-540	2.2	36
173	Influence of deposition pressure and selenisation on damp heat degradation of the Cu(In,Ga)Se ₂ back contact molybdenum. <i>Surface and Coatings Technology</i> , 2014 , 252, 157-167	4.4	15
172	In situ manipulation of the sub gap states in hydrogenated amorphous silicon monitored by advanced application of Fourier transform photocurrent spectroscopy. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 129, 70-81	6.4	22
171	Electrical transport mechanisms in amorphous/crystalline silicon heterojunction: Impact of passivation layer thickness. <i>Thin Solid Films</i> , 2014 , 558, 315-319	2.2	8
170	Optimized back Reflectors for Rear Diffused c-Si Solar Cells. <i>Energy Procedia</i> , 2014 , 55, 94-100	2.3	4
169	Effect of substrate morphology slope distributions on light scattering, nc-Si:H film growth, and solar cell performance. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 22061-8	9.5	17
168	Integrating electricity from solar energy in electricity power system 2014 ,		1
167	Optimized nano-textured interfaces for thin-film silicon solar cells: identifying the limit of randomly textured interfaces 2014 ,		3
166	19.8% conversion efficiency in modulated surface textured IBC c-Si solar cells 2014 ,		1
165	Enhancing the driving field for plasmonic nanoparticles in thin-film solar cells. <i>Optics Express</i> , 2014 , 22 Suppl 4, A1023-8	3.3	19
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