

Rutger Schlatmann

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.

152
papers

3,908
citations

27
h-index

58
g-index

171
ext. papers

5,040
ext. citations

6.2
avg, IF

5.32
L-index

#	Paper	IF	Citations
152	Encapsulation and Outdoor Testing of Perovskite Solar Cells: Comparing Industrially Relevant Process with a Simplified Lab Procedure.. <i>ACS Applied Materials & Interfaces</i> , 2022 , 14, 5159-5167	9.5	4
151	Perovskite/CIGS Tandem Solar Cells: From Certified 24.2% toward 30% and Beyond. <i>ACS Energy Letters</i> , 2022 , 7, 1298-1307	20.1	19
150	Optoelectrical analysis of TCO+Silicon oxide double layers at the front and rear side of silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 236, 111493	6.4	5
149	Applicability of Atmospheric Pressure Plasma Jet (APPJ) Discharge for the Reduction in Graphene Oxide Films and Synthesis of Carbon Nanomaterials. <i>Journal of Carbon Research</i> , 2021 , 7, 71	3.3	1
148	Compositional and Interfacial Engineering Yield High-Performance and Stable p-i-n Perovskite Solar Cells and Mini-Modules. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 13022-13033	9.5	31
147	Efficient Hybrid Amorphous Silicon/Organic Tandem Solar Cells Enabled by Near-Infrared Absorbing Nonfullerene Acceptors. <i>Advanced Energy Materials</i> , 2021 , 11, 2100166	21.8	3
146	Decay mechanisms in CdS-buffered Cu(In,Ga)Se ₂ thin-film solar cells after exposure to thermal stress: Understanding the role of Na. <i>Progress in Photovoltaics: Research and Applications</i> , 2021 , 29, 1034-1053	6.8	1
145	27.9% Efficient Monolithic Perovskite/Silicon Tandem Solar Cells on Industry Compatible Bottom Cells. <i>Solar Rrl</i> , 2021 , 5, 2100244	7.1	22
144	Elucidating the Effect of the Different Buffer Layers on the Thermal Stability of CIGSe Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2021 , 11, 648-657	3.7	0
143	Enhanced recombination next to laser-patterned lines in CIGSe solar cells revealed by spectral and time-resolved photoluminescence. <i>Applied Surface Science</i> , 2021 , 536, 147721	6.7	2
142	A Device Model for Rb-Conditioned Chalcopyrite Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2021 , 11, 232-240	3.7	4
141	Understanding the Hydrogen Evolution Reaction Kinetics of Electrodeposited Nickel-Molybdenum in Acidic, Near-Neutral, and Alkaline Conditions. <i>ChemElectroChem</i> , 2021 , 8, 195-208	4.3	12
140	Understanding deposition temperature dependent photovoltaic characteristics of Cu(In,Ga)Se ₂ solar cells: A study with thermally stable alkali aluminosilicate glass substrates. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 221, 110875	6.4	0
139	Improved Electrical Performance of Perovskite Photovoltaic Mini-Modules through Controlled PbI ₂ Formation Using Nanosecond Laser Pulses for P3 Patterning. <i>Energy Technology</i> , 2021 , 9, 2000969	3.5	5
138	Electronic Structure of the CdS/Cu(In,Ga)Se Interface of KF- and RbF-Treated Samples by Kelvin Probe and Photoelectron Yield Spectroscopy. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 7745-7755	9.5	2
137	Depth-resolved analysis of the effect of RbF post deposition treatment on CIGSe with two different Cu concentrations. <i>Solar Energy Materials and Solar Cells</i> , 2021 , 226, 111071	6.4	5
136	Host, Suppressor, and Promoter: The Roles of Ni and Fe on Oxygen Evolution Reaction Activity and Stability of NiFe Alloy Thin Films in Alkaline Media. <i>ACS Catalysis</i> , 2021 , 11, 10537-10552	13.1	16

135	Impact of RbF post deposition treatment on CdS/CIGSe and Zn(O,S)/CIGSe interfaces [A comparative HAXPES study. <i>Renewable Energy</i> , 2021 , 180, 626-636	8.1	3
134	Monolithic perovskite/silicon tandem solar cell with >29% efficiency by enhanced hole extraction. <i>Science</i> , 2020 , 370, 1300-1309	33.3	438
133	Toward High Solar Cell Efficiency with Low Material Usage: 15% Efficiency with 14 μ m Polycrystalline Silicon on Glass. <i>Solar Rrl</i> , 2020 , 4, 2000058	7.1	7
132	Ablation mechanisms of nanosecond and picosecond laser scribing for metal halide perovskite module interconnection [An experimental and numerical analysis. <i>Solar Energy</i> , 2020 , 198, 410-418	6.8	18
131	Limitation of Current Transport across the Heterojunction in Cu(In,Ga)Se ₂ Solar Cells Prepared with Alkali Fluoride Postdeposition Treatment. <i>Solar Rrl</i> , 2020 , 4, 1900560	7.1	6
130	Improved Surface Passivation by Wet Texturing, Ozone-Based Cleaning, and Plasma-Enhanced Chemical Vapor Deposition Processes for High-Efficiency Silicon Heterojunction Solar Cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020 , 217, 1900518	1.6	11
129	Impact of rough substrates on hydrogen-doped indium oxides for the application in CIGS devices. <i>Solar Energy Materials and Solar Cells</i> , 2020 , 206, 110300	6.4	6
128	Influence of Silicon Layers on the Growth of ITO and AZO in Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2020 , 10, 703-709	3.7	14
127	A techno-economic perspective on solar-to-hydrogen concepts through 2025. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 5818-5834	5.8	7
126	Effect of the ambient conditions on the operation of a large-area integrated photovoltaic-electrolyser. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 4831-4847	5.8	7
125	Versatility of Nanocrystalline Silicon Films: from Thin-Film to Perovskite/c-Si Tandem Solar Cell Applications. <i>Coatings</i> , 2020 , 10, 759	2.9	3
124	Functional Data Analysis of Electrical Measurements on Thin-Film Photovoltaic Devices. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 1436-1441	3.7	1
123	Effectiveness of an RbF Post Deposition Treatment of CIGS Solar Cells in Dependence on the Cu Content of the Absorber Layer. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 1839-1845	3.7	24
122	Solar hydrogen production: a bottom-up analysis of different photovoltaic[electrolysis pathways. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 801-813	5.8	24
121	21.6%-Efficient Monolithic Perovskite/Cu(In,Ga)Se ₂ Tandem Solar Cells with Thin Conformal Hole Transport Layers for Integration on Rough Bottom Cell Surfaces. <i>ACS Energy Letters</i> , 2019 , 4, 583-590	20.1	106
120	Effects of KF and RbF post deposition treatments on the growth of the CdS buffer layer on CIGS thin films - a comparative study. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 200, 109997	6.4	19
119	Terawatt-scale photovoltaics: Transform global energy. <i>Science</i> , 2019 , 364, 836-838	33.3	178
118	Highly efficient monolithic perovskite silicon tandem solar cells: analyzing the influence of current mismatch on device performance. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 1995-2005	5.8	139

117	Glow discharge optical emission spectrometry for quantitative depth profiling of CIGS thin-films. <i>Journal of Analytical Atomic Spectrometry</i> , 2019 , 34, 1233-1241	3.7	17
116	All-Thin-Film Tandem Cells Based on Liquid Phase Crystallized Silicon and Perovskites. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 621-628	3.7	10
115	Effect of front TCO on the performance of rear-junction silicon heterojunction solar cells: Insights from simulations and experiments. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 195, 339-345	6.4	42
114	Laser firing in silicon heterojunction interdigitated back contact architecture for low contact resistance. <i>Solar Energy Materials and Solar Cells</i> , 2019 , 203, 110201	6.4	5
113	A simple method with analytical model to extract heterojunction solar cell series resistance components and to extract the A-Si:H(i/p) to transparent conductive oxide contact resistivity 2019 ,		5
112	Infrared Light Management Using a Nanocrystalline Silicon Oxide Interlayer in Monolithic Perovskite/Silicon Heterojunction Tandem Solar Cells with Efficiency above 25%. <i>Advanced Energy Materials</i> , 2019 , 9, 1803241	21.8	161
111	Prospects for Hermetic Sealing of Scaled-Up Photoelectrochemical Hydrogen Generators for Reliable and Risk Free Operation. <i>Energies</i> , 2019 , 12, 4176	3.1	3
110	Conformal monolayer contacts with lossless interfaces for perovskite single junction and monolithic tandem solar cells. <i>Energy and Environmental Science</i> , 2019 , 12, 3356-3369	35.4	229
109	Assessment of Bulk and Interface Quality for Liquid Phase Crystallized Silicon on Glass. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 364-373	3.7	6
108	ITO-Free Silicon Heterojunction Solar Cells With ZnO:Al/SiO ₂ Front Electrodes Reaching a Conversion Efficiency of 23%. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 34-39	3.7	28
107	Improved electrical properties of pulsed DC magnetron sputtered hydrogen doped indium oxide after annealing in air. <i>Materials Science in Semiconductor Processing</i> , 2019 , 89, 170-175	4.3	3
106	Impact of Dielectric Layers on Liquid-Phase Crystallized Silicon Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 30-37	3.7	14
105	Progress in and potential of liquid phase crystallized silicon solar cells. <i>Solar Energy</i> , 2018 , 175, 75-83	6.8	11
104	Ultra-thin nanocrystalline n-type silicon oxide front contact layers for rear-emitter silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 179, 386-391	6.4	40
103	Potential of interdigitated back-contact silicon heterojunction solar cells for liquid phase crystallized silicon on glass with efficiency above 14%. <i>Solar Energy Materials and Solar Cells</i> , 2018 , 174, 187-195	6.4	37
102	Infrared photocurrent management in monolithic perovskite/silicon heterojunction tandem solar cells by using a nanocrystalline silicon oxide interlayer. <i>Optics Express</i> , 2018 , 26, A487-A497	3.3	33
101	Elucidating the Mechanism of an RbF Post Deposition Treatment in CIGS Thin Film Solar Cells. <i>Solar Rrl</i> , 2018 , 2, 1800156	7.1	51
100	Passivation of Liquid-Phase Crystallized Silicon With PECVD-SiN _x and PECVD-SiN _x /SiO _x . <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018 , 215, 1800239	1.6	0

99	. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 1244-1251	3.7	8
98	Serial cosputtering for aluminum doping manipulated zinc oxide as front contact for Cu(In,Ga)Se ₂ solar cells. <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 08RC18	1.4	2
97	ZnO:Al/a-SiO _x front contact for polycrystalline-silicon-on-oxide (POLO) solar cells 2018 ,		5
96	. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 70-78	3.7	42
95	Influence of the precursor layer composition and deposition processes on the electronic quality of liquid phase crystallized silicon absorbers. <i>Progress in Photovoltaics: Research and Applications</i> , 2018 , 26, 524-532	6.8	4
94	Observation of PbI ₂ Residuals after P2 Nanosecond Laser Ablation of Perovskite Absorber Layers 2018 ,		2
93	Textured interfaces in monolithic perovskite/silicon tandem solar cells: advanced light management for improved efficiency and energy yield. <i>Energy and Environmental Science</i> , 2018 , 11, 3511-3523	35.4	194
92	Nanocrystalline silicon oxide interlayer in monolithic perovskite/silicon heterojunction tandem solar cells with total current density >39 mA/cm ² 2018 ,		2
91	Properties of Co-Evaporated RbInSe ₂ Thin Films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018 , 13, 1800564	2.5	6
90	Evaluation of recombination losses in thin film solar cells using an LED sun simulator II: the effect of RbF post-deposition on CIGS solar cells. <i>EPJ Photovoltaics</i> , 2018 , 9, 9	0.7	8
89	Influence of ZnO-Based Sub-Layers on the Growth of Hydrogen Doped Indium Oxide. <i>ACS Applied Energy Materials</i> , 2018 , 1, 5490-5499	6.1	4
88	Inorganic Materials as Hole Selective Contacts and Intermediate Tunnel Junction Layer for Monolithic Perovskite-CIGSe Tandem Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1801692	21.8	12
87	Thin Crystalline Silicon Solar Cells on Glass 2017 , 226-237		
86	Lateral phase separation in Cu-In-Ga precursor and Cu(In,Ga)Se ₂ absorber thin films. <i>Solar Energy Materials and Solar Cells</i> , 2017 , 162, 120-126	6.4	7
85	Adjusting the Ga grading during fast atmospheric processing of Cu(In,Ga)Se ₂ solar cell absorber layers using elemental selenium vapor. <i>Progress in Photovoltaics: Research and Applications</i> , 2017 , 25, 341-357	6.8	25
84	Silicon Solar Cells on Glass with Power Conversion Efficiency above 13% at Thickness below 15 Micrometer. <i>Scientific Reports</i> , 2017 , 7, 873	4.9	26
83	Investigating sulfur distribution and corresponding bandgap grading in Cu(In,Ga)(S,Se) ₂ absorber layers processed by fast atmospheric chalcogenization of metal precursors. <i>Journal of Alloys and Compounds</i> , 2017 , 703, 600-604	5.7	8
82	Interface Engineering for Liquid-Phase Crystallized-Silicon Solar Cells on Glass. <i>Solar Rrl</i> , 2017 , 1, 1700015	5.1	8

81	Nanocrystalline silicon emitter optimization for Si-HJ solar cells: Substrate selectivity and CO ₂ plasma treatment effect. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017 , 214, 1532958	1.6	22
80	Passivation at the interface between liquid-phase crystallized silicon and silicon oxynitride in thin film solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2017 , 25, 515-524	6.8	6
79	Influence of the Frontside Charge Inversion Layer on the Minority Carrier Collection in Backside Contacted Liquid Phase Crystallized Silicon on Glass Solar Cells. <i>Solar Rrl</i> , 2017 , 1, 1700100	7.1	1
78	Revealing and Identifying Laser-Induced Damages in CIGSe Solar Cells by Photoluminescence Spectroscopy. <i>IEEE Journal of Photovoltaics</i> , 2017 , 7, 1442-1449	3.7	4
77	Efficient Cu(In,Ga)(Se,S) ₂ modules with sputtered Zn(O,S) buffer layer. <i>Thin Solid Films</i> , 2017 , 633, 231-234	3.4	10
76	Interface engineering of Cu(In,Ga)Se ₂ and atomic layer deposited Zn(O,S) heterojunctions. <i>Japanese Journal of Applied Physics</i> , 2017 , 56, 08MC16	1.4	2
75	Laser-induced local phase transformation of CIGSe for monolithic serial interconnection: Analysis of the material properties. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 157, 636-643	6.4	6
74	Crystalline silicon on glass Interface passivation and absorber material quality. <i>Progress in Photovoltaics: Research and Applications</i> , 2016 , 24, 1499-1512	6.8	15
73	Emitter Patterning for Back-Contacted Si Heterojunction Solar Cells Using Laser Written Mask Layers for Etching and Self-Aligned Passivation (LEAP). <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 894-899	3.7	10
72	Architectures for scalable integrated photo driven catalytic devices-A concept study. <i>International Journal of Hydrogen Energy</i> , 2016 , 41, 20823-20831	6.7	11
71	Investigation of laser-fired point contacts on KOH structured laser-crystallized silicon by conductive atomic force microscopy. <i>Applied Surface Science</i> , 2016 , 374, 243-247	6.7	
70	Optimization of the post-deposition annealing process of high-mobility In ₂ O ₃ :H for photovoltaic applications. <i>Thin Solid Films</i> , 2016 , 599, 78-83	2.2	21
69	Monolithic perovskite/silicon-heterojunction tandem solar cells processed at low temperature. <i>Energy and Environmental Science</i> , 2016 , 9, 81-88	35.4	469
68	Improvement of the homogeneity of high mobility In ₂ O ₃ :H films by sputtering through a mesh electrode studied by Monte Carlo simulation and thin film analysis. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 2310-2316	1.6	1
67	Interface passivation of liquid-phase crystallized silicon on glass studied with high-frequency capacitance-voltage measurements. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 1697-1704	1.6	9
66	Backside contacted solar cells with heterojunction emitters and laser fired absorber contacts for crystalline silicon on glass 2016 ,		1
65	Wafer Surface Tuning for a-Si:H/μ-Si:H/c-Si Triple Junction Solar Cells for Application in Water Splitting. <i>Energy Procedia</i> , 2016 , 102, 126-135	2.3	8
64	Artificial Leaf for Water Splitting Based on a Triple-Junction Thin-Film Silicon Solar Cell and a PEDOT:PSS/Catalyst Blend. <i>Energy Technology</i> , 2016 , 4, 230-241	3.5	25

63	Advantageous light management in Cu(In,Ga)Se ₂ superstrate solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016 , 150, 76-81	6.4	18
62	Quadruple-junction solar cells and modules based on amorphous and microcrystalline silicon with high stable efficiencies. <i>Japanese Journal of Applied Physics</i> , 2015 , 54, 08KB03	1.4	33
61	Rear-side All-by-Laser Point-contact Scheme for liquid-phase-crystallized silicon on glass solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 137, 280-286	6.4	16
60	High mobility In ₂ O ₃ :H as contact layer for a-Si:H/c-Si heterojunction and μ -Si:H thin film solar cells. <i>Thin Solid Films</i> , 2015 , 594, 316-322	2.2	23
59	Thin-film a-Si:H solar cells processed on aluminum-induced texture (AIT) glass superstrates: prediction of light absorption enhancement. <i>Applied Optics</i> , 2015 , 54, 4366-73	1.7	5
58	Nanocrystalline Silicon Oxide Emitters for Silicon Hetero Junction Solar Cells. <i>Energy Procedia</i> , 2015 , 77, 304-310	2.3	14
57	Analysis of photo-current potentials and losses in thin film crystalline silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 143, 457-466	6.4	34
56	Influence of Chemical Composition and Structure in Silicon Dielectric Materials on Passivation of Thin Crystalline Silicon on Glass. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 19282-94	9.5	10
55	The Influence of ITO Dopant Density on J-V Characteristics of Silicon Heterojunction Solar Cells: Experiments and Simulations. <i>Energy Procedia</i> , 2015 , 77, 725-732	2.3	32
54	Influence of Cu(In,Ga)(Se,S) ₂ surface treatments on the properties of 30B0cm ² large area modules with atomic layer deposited Zn(O,S) buffers. <i>Thin Solid Films</i> , 2015 , 574, 28-31	2.2	7
53	On the Plasma Chemistry During Plasma Enhanced Chemical Vapor Deposition of Microcrystalline Silicon Oxides. <i>Plasma Processes and Polymers</i> , 2015 , 12, 82-91	3.4	26
52	Light trapping for a-Si:H/ μ c-Si:H tandem solar cells using direct pulsed laser interference texturing. <i>Physica Status Solidi - Rapid Research Letters</i> , 2015 , 9, 36-40	2.5	9
51	Light Scattering and Current Enhancement for Microcrystalline Silicon Thin-Film Solar Cells on Aluminium-Induced Texture Glass Superstrates with Double Texture. <i>International Journal of Photoenergy</i> , 2015 , 2015, 1-8	2.1	2
50	Comparison of the influence of boron and aluminium doping on the material properties of electrochemically deposited ZnO films. <i>Thin Solid Films</i> , 2015 , 594, 215-224	2.2	3
49	Electrical and structural functionality of CIGSe solar cells patterned with picosecond laser pulses of different wavelengths 2015 ,		1
48	Controlling the thermal impact of ns laser pulses for the preparation of the P2 interconnect by local phase transformation in CIGSe 2015 ,		3
47	Silicon Heterojunction Solar Cells With Nanocrystalline Silicon Oxide Emitter: Insights Into Charge Carrier Transport. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 1601-1605	3.7	20
46	Above 16% efficient sequentially grown Cu(In,Ga)(Se,S) ₂ -based solar cells with atomic layer deposited Zn(O,S) buffers. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 1493-1500	6.8	21

45	p-type microcrystalline silicon oxide emitter for silicon heterojunction solar cells allowing current densities above 40 mA/cm ² . <i>Applied Physics Letters</i> , 2015 , 106, 023902	3.4	76
44	The Importance of Sodium Control in CIGSe Superstrate Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 378-381	3.7	11
43	Hybrid organic/inorganic thin-film multijunction solar cells exceeding 11% power conversion efficiency. <i>Advanced Materials</i> , 2015 , 27, 1262-7	2.4	38
42	Plasma enhanced chemical vapor deposition process optimization for thin film silicon tandem junction solar cells. <i>Thin Solid Films</i> , 2014 , 558, 337-343	2.2	12
41	Zn(O,S) buffer prepared by atomic layer deposition for sequentially grown Cu(In,Ga)(Se,S) ₂ solar cells and modules. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 126, 120-124	6.4	17
40	Efficient hybrid inorganic/organic tandem solar cells with tailored recombination contacts. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 127, 157-162	6.4	20
39	Zinc oxide films grown by galvanic deposition from 99% metals basis zinc nitrate electrolyte. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 9626-9635	1.3	3
38	Efficiency and stability enhancement of laser-crystallized polycrystalline silicon thin-film solar cells by laser firing of the absorber contacts. <i>Solar Energy Materials and Solar Cells</i> , 2014 , 120, 521-525	6.4	23
37	Investigation of Laser-fired Rear-side Point Contacts of Laser-crystallized Silicon Thin-film Solar Cells by Conductive Probe Atomic Force Microscopy. <i>Energy Procedia</i> , 2014 , 60, 76-80	2.3	1
36	Implications of TCO Topography on Intermediate Reflector Design for a-Si/μc-Si Tandem Solar Cells Experiments and Rigorous Optical Simulations. <i>IEEE Journal of Photovoltaics</i> , 2014 , 4, 10-15	3.7	14
35	PECVD Intermediate and Absorber Layers Applied in Liquid-Phase Crystallized Silicon Solar Cells on Glass Substrates. <i>IEEE Journal of Photovoltaics</i> , 2014 , 4, 1343-1348	3.7	24
34	Improved conversion efficiency of a-Si:H/μc-Si:H thin-film solar cells by using annealed Al-doped zinc oxide as front electrode material. <i>Progress in Photovoltaics: Research and Applications</i> , 2014 , 22, 1285-1291 ²²	6.8	22
33	Very thin, highly-conductive ZnO:Al front electrode on textured glass as substrate for thin-film silicon solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 44-47	2.5	8
32	Comparative study of backside reflectors on a-Si:H/μc-Si:H thin film solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014 , 211, 2078-2081	1.6	2
31	Efficient plasmonic scattering of colloidal silver particles through annealing-induced changes. <i>Nanotechnology</i> , 2014 , 25, 455706	3.4	7
30	Comparison of TMB and B ₂ H ₆ as Precursors for Emitter Doping in High Efficiency Silicon Hetero Junction Solar Cells. <i>Energy Procedia</i> , 2014 , 60, 123-128	2.3	12
29	Plasma monitoring and PECVD process control in thin film silicon-based solar cell manufacturing. <i>EPJ Photovoltaics</i> , 2014 , 5, 55202	0.7	24
28	Potential of high-mobility sputtered zinc oxide as front contact for high efficiency thin film silicon solar cells. <i>Thin Solid Films</i> , 2014 , 555, 138-142	2.2	7

27	Growth process of microcrystalline silicon studied by combined photoluminescence and Raman investigations. <i>Journal of Applied Physics</i> , 2013 , 114, 223511	2.5	4
26	Micro gratings written in ZnO:Al thin films using picosecond UV-laser interference patterning. <i>Physica Status Solidi - Rapid Research Letters</i> , 2013 , 7, 635-638	2.5	9
25	Achievements and challenges in thin film silicon module production. <i>Solar Energy Materials and Solar Cells</i> , 2013 , 119, 196-203	6.4	29
24	The growth of microcrystalline silicon oxide thin films studied by in situ plasma diagnostics. <i>Applied Physics Letters</i> , 2013 , 102, 051906	3.4	23
23	MoSe ₂ formation during fabrication of Cu(In, Ga)Se ₂ solar cell absorbers by using stacked elemental layer precursor and selenization at high temperatures 2013 ,		2
22	An improved silicon-oxide-based intermediate-reflector for micromorph solar cells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2012 , 9, 2145-2148		16
21	Large area PECVD of a-Si:H/a-Si:H tandem solar cells. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 2982-2985		8
20	Modification of light scattering properties of boron doped zinc oxide grown by Low Pressure Chemical Vapour Deposition using wet chemical etching 2010 ,		1
19	Thin film silicon modules on plastic superstrates. <i>Journal of Non-Crystalline Solids</i> , 2008 , 354, 2381-2385	3.9	16
18	Flexible amorphous and microcrystalline silicon tandem solar modules in the temporary superstrate concept. <i>Solar Energy Materials and Solar Cells</i> , 2007 , 91, 572-580	6.4	59
17	NIR diode laser spectroscopy of HF and HCl at multiple points in the atmospheric pressure CVD of tin oxide films. <i>Surface and Coatings Technology</i> , 2007 , 201, 9030-9034	4.4	5
16	Helianthos: Roll-to-Roll Deposition of Flexible Solar Cell Modules. <i>Plasma Processes and Polymers</i> , 2007 , 4, 275-281	3.4	22
15	Flexible a-Si/β-Si Tandem Modules in the Helianthos Project 2006 ,		1
14	Numerical and experimental study of disordered multilayers for broadband x-ray reflection. <i>Applied Optics</i> , 1996 , 35, 3614-9	1.7	20
13	Evolution of surface morphology during growth and ion erosion of thin films. <i>Physical Review B</i> , 1996 , 54, 10880-10889	3.3	22
12	Enhanced x-ray optical contrast of Mo/Si multilayers by H implantation of Si. <i>Journal of Applied Physics</i> , 1996 , 80, 2121-2126	2.5	9
11	Low energy ion beam mixing as a tool for multilayer x-ray mirror fabrication. <i>Applied Physics Letters</i> , 1996 , 68, 2948-2950	3.4	6
10	Diffuse-x-ray-scattering measurements of roughness on ion-etched multilayer interfaces. <i>Physical Review B</i> , 1995 , 51, 5345-5351	3.3	14

9	Enhancement of reflectivity of multilayer mirrors for soft x-ray projection lithography by temperature optimization and ion bombardment. <i>Microelectronic Engineering</i> , 1994 , 23, 215-218	2.5	35
8	Modification by Ar and Kr ion bombardment of Mo/Si X-ray multilayers. <i>Applied Surface Science</i> , 1994 , 78, 147-157	6.7	40
7	X-ray reflection, a technique for measuring sputtering yields of thin films. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1994 , 94, 395-403	1.2	5
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