

Mowafak M Al-Jassim

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282
ext. papers

8,705
ext. citations

7.3
avg, IF

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L-index

#	Paper	IF	Citations
243	Band Edge Electronic Structure of BiVO ₄ : Elucidating the Role of the Bi s and V d Orbitals. <i>Chemistry of Materials</i> , 2009 , 21, 547-551	9.6	542
242	Carrier lifetimes of >1 μs in Sn-Pb perovskites enable efficient all-perovskite tandem solar cells. <i>Science</i> , 2019 , 364, 475-479	33.3	496
241	Employing Lead Thiocyanate Additive to Reduce the Hysteresis and Boost the Fill Factor of Planar Perovskite Solar Cells. <i>Advanced Materials</i> , 2016 , 28, 5214-21	24	403
240	Extrinsic ion migration in perovskite solar cells. <i>Energy and Environmental Science</i> , 2017 , 10, 1234-1242	35.4	336
239	Grain-boundary-enhanced carrier collection in CdTe solar cells. <i>Physical Review Letters</i> , 2014 , 112, 156103	7.4	210
238	Electrodeposited Aluminum-Doped Fe ₂ O ₃ Photoelectrodes: Experiment and Theory. <i>Chemistry of Materials</i> , 2010 , 22, 510-517	9.6	207
237	Cooperative tin oxide fullerene electron selective layers for high-performance planar perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 14276-14283	13	178
236	Comparative study of the luminescence and intrinsic point defects in the kesterite Cu ₂ ZnSnS ₄ and chalcopyrite Cu(In,Ga)Se ₂ thin films used in photovoltaic applications. <i>Physical Review B</i> , 2011 , 84,	3.3	177
235	Evaluation of Nitrogen Doping of Tungsten Oxide for Photoelectrochemical Water Splitting. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 5213-5220	3.8	174
234	Understanding and Eliminating Hysteresis for Highly Efficient Planar Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2017 , 7, 1700414	21.8	162
233	Reducing Saturation-Current Density to Realize High-Efficiency Low-Bandgap Mixed Tin/Lead Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019 , 9, 1803135	21.8	162
232	Enhanced photoelectrochemical responses of ZnO films through Ga and N codoping. <i>Applied Physics Letters</i> , 2007 , 91, 231909	3.4	133
231	The 2020 photovoltaic technologies roadmap. <i>Journal Physics D: Applied Physics</i> , 2020 , 53, 493001	3	128
230	Engineering Grain Boundaries in Cu ₂ ZnSnSe ₄ for Better Cell Performance: A First-Principle Study. <i>Advanced Energy Materials</i> , 2014 , 4, 1300712	21.8	118
229	Mechanisms of Electron-Beam-Induced Damage in Perovskite Thin Films Revealed by Cathodoluminescence Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 26904-26911	3.8	117
228	A graded catalytic/protective layer for an efficient and stable water-splitting photocathode. <i>Nature Energy</i> , 2017 , 2,	62.3	113
227	Electronic, structural, and magnetic effects of 3d transition metals in hematite. <i>Journal of Applied Physics</i> , 2010 , 107, 123712	2.5	111

226	Combinatorial insights into doping control and transport properties of zinc tin nitride. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 11017-11028	7.1	107
225	Enhancement of photoelectrochemical response by aligned nanorods in ZnO thin films. <i>Journal of Power Sources</i> , 2008 , 176, 387-392	8.9	104
224	Synthesis of band-gap-reduced p-type ZnO films by Cu incorporation. <i>Journal of Applied Physics</i> , 2007 , 102, 023517	2.5	103
223	Band-Engineered Bismuth Titanate Pyrochlores for Visible Light Photocatalysis. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 10598-10605	3.8	100
222	Achieving a high open-circuit voltage in inverted wide-bandgap perovskite solar cells with a graded perovskite homojunction. <i>Nano Energy</i> , 2019 , 61, 141-147	17.1	97
221	Direct observation of Na and O impurities at grain surfaces of CuInSe ₂ thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1999 , 17, 291-296	2.9	89
220	ZnO nanocoral structures for photoelectrochemical cells. <i>Applied Physics Letters</i> , 2008 , 93, 163117	3.4	87
219	Electrochemical deposition of copper oxide nanowires for photoelectrochemical applications. <i>Journal of Materials Chemistry</i> , 2010 , 20, 6962		83
218	Low-bandgap mixed tin/lead iodide perovskites with reduced methylammonium for simultaneous enhancement of solar cell efficiency and stability. <i>Nature Energy</i> , 2020 , 5, 768-776	62.3	80
217	Photoelectrochemical Properties of N-Incorporated ZnO Films Deposited by Reactive RF Magnetron Sputtering. <i>Journal of the Electrochemical Society</i> , 2007 , 154, B956	3.9	75
216	Cathodoluminescence of Cu(In,Ga)Se ₂ thin films used in high-efficiency solar cells. <i>Applied Physics Letters</i> , 2003 , 83, 4770-4772	3.4	74
215	Mechanism of Zn and Si diffusion from a highly doped tunnel junction for InGaP/GaAs tandem solar cells. <i>Journal of Applied Physics</i> , 1999 , 85, 1481-1486	2.5	66
214	From atomic structure to photovoltaic properties in CdTe solar cells. <i>Ultramicroscopy</i> , 2013 , 134, 113-125	5.1	65
213	In situ investigation of the formation and metastability of formamidinium lead tri-iodide perovskite solar cells. <i>Energy and Environmental Science</i> , 2016 , 9, 2372-2382	35.4	64
212	Understanding the Formation and Temperature Dependence of Thick-Film Ag Contacts on High-Sheet-Resistance Si Emitters for Solar Cells. <i>Journal of the Electrochemical Society</i> , 2005 , 152, G742	3.9	61
211	Arylammonium-Assisted Reduction of the Open-Circuit Voltage Deficit in Wide-Bandgap Perovskite Solar Cells: The Role of Suppressed Ion Migration. <i>ACS Energy Letters</i> , 2020 , 5, 2560-2568	20.1	56
210	Ternary cobalt spinel oxides for solar driven hydrogen production: Theory and experiment. <i>Energy and Environmental Science</i> , 2009 , 2, 774	35.4	55
209	Synthesis and characterization of band gap-reduced ZnO:N and ZnO:(Al,N) films for photoelectrochemical water splitting. <i>Journal of Materials Research</i> , 2010 , 25, 69-75	2.5	52

208	Overcoming Carrier Concentration Limits in Polycrystalline CdTe Thin Films with In Situ Doping. <i>Scientific Reports</i> , 2018 , 8, 14519	4.9	50
207	An x-ray photoelectron spectroscopy investigation of O impurity chemistry in CdS thin films grown by chemical bath deposition. <i>Journal of Applied Physics</i> , 1997 , 81, 1978-1984	2.5	49
206	Defect segregation at grain boundary and its impact on photovoltaic performance of CuInSe ₂ . <i>Applied Physics Letters</i> , 2013 , 102, 193905	3.4	46
205	Influence of gas ambient on the synthesis of co-doped ZnO:(Al,N) films for photoelectrochemical water splitting. <i>Journal of Power Sources</i> , 2010 , 195, 5801-5805	8.9	46
204	Physics of grain boundaries in polycrystalline photovoltaic semiconductors. <i>Journal of Applied Physics</i> , 2015 , 117, 112807	2.5	44
203	Perovskite Photovoltaics: The Path to a Printable Terawatt-Scale Technology. <i>ACS Energy Letters</i> , 2017 , 2, 2540-2544	20.1	42
202	Junction Quality of SnO-Based Perovskite Solar Cells Investigated by Nanometer-Scale Electrical Potential Profiling. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 38373-38380	9.5	41
201	Hydrothermally synthesized titania nanotubes as a promising electron transport medium in dye sensitized solar cells exhibiting a record efficiency of 7.6% for 1-D based devices. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 5377	13	41
200	Three-dimensional electronic resistivity mapping of solid electrolyte interphase on Si anode materials. <i>Nano Energy</i> , 2019 , 55, 477-485	17.1	41
199	Direct evidence of enhanced chlorine segregation at grain boundaries in polycrystalline CdTe thin films via three-dimensional TOF-SIMS imaging. <i>Progress in Photovoltaics: Research and Applications</i> , 2015 , 23, 838-846	6.8	38
198	Obtaining Large Columnar CdTe Grains and Long Lifetime on Nanocrystalline CdSe, MgZnO, or CdS Layers. <i>Advanced Energy Materials</i> , 2018 , 8, 1702666	21.8	37
197	Built-in potential and charge distribution within single heterostructured nanorods measured by scanning Kelvin probe microscopy. <i>Nano Letters</i> , 2013 , 13, 1278-84	11.5	37
196	Cathodoluminescence of Cu diffusion in CdTe thin films for CdTe/CdS solar cells. <i>Applied Physics Letters</i> , 2002 , 81, 2962-2964	3.4	37
195	Toward All-Solid-State Lithium Batteries: Three-Dimensional Visualization of Lithium Migration in Li ₃ PS ₄ Ceramic Electrolyte. <i>Journal of the Electrochemical Society</i> , 2018 , 165, A3732-A3737	3.9	37
194	On the existence of SiO ₂ double bonded graphene-like layers. <i>Chemical Physics Letters</i> , 2009 , 479, 255-258.5	2.5	36
193	Prediction of the chemical trends of oxygen vacancy levels in binary metal oxides. <i>Applied Physics Letters</i> , 2011 , 99, 142109	3.4	35
192	Sodium Accumulation at Potential-Induced Degradation Shunted Areas in Polycrystalline Silicon Modules. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 1440-1445	3.7	34
191	Grain engineering: How nanoscale inhomogeneities can control charge collection in solar cells. <i>Nano Energy</i> , 2017 , 32, 488-493	17.1	32

190	Imaging of resonant quenching of surface plasmons by quantum dots. <i>Nano Letters</i> , 2006 , 6, 2833-7	11.5	32
189	Atomic structure of In ₂ O ₃ /ZnO systems. <i>Applied Physics Letters</i> , 2007 , 90, 261904	3.4	30
188	Structural, electronic, and optical properties of Cu ₃ -V-VI ₄ compound semiconductors. <i>Applied Physics Letters</i> , 2013 , 103, 152105	3.4	29
187	Titanium and magnesium Co-alloyed hematite thin films for photoelectrochemical water splitting. <i>Journal of Applied Physics</i> , 2012 , 111, 073502	2.5	29
186	Improved current collection in WO ₃ :Mo/WO ₃ bilayer photoelectrodes. <i>Journal of Materials Research</i> , 2010 , 25, 45-51	2.5	29
185	Beam injection methods for characterizing thin-film solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2002 , 10, 445-455	6.8	29
184	Enhancing the Stability of CuO Thin-Film Photoelectrodes by Ti Alloying. <i>Journal of Electronic Materials</i> , 2012 , 41, 3062-3067	1.9	27
183	CoAl ₂ O ₄ /Fe ₂ O ₃ p-n nanocomposite electrodes for photoelectrochemical cells. <i>Applied Physics Letters</i> , 2009 , 95, 022116	3.4	27
182	Origin of the diverse behavior of oxygen vacancies in ABO ₃ perovskites: A symmetry based analysis. <i>Physical Review B</i> , 2012 , 85,	3.3	26
181	Understanding and Use of IR Belt Furnace for Rapid Thermal Firing of Screen-Printed Contacts to Si Solar Cells. <i>IEEE Electron Device Letters</i> , 2010 , 31, 461-463	4.4	26
180	Understanding the charge transport mechanisms through ultrathin SiO _x layers in passivated contacts for high-efficiency silicon solar cells. <i>Applied Physics Letters</i> , 2019 , 114, 083902	3.4	26
179	Possible effects of oxygen in Te-rich B (112) grain boundaries in CdTe. <i>Solid State Communications</i> , 2012 , 152, 1744-1747	1.6	25
178	Synthesis and characterization of titanium-alloyed hematite thin films for photoelectrochemical water splitting. <i>Journal of Applied Physics</i> , 2011 , 110, 123511	2.5	25
177	Nanoscale insight into the p-n junction of alkali-incorporated Cu(In,Ga)Se ₂ solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2017 , 25, 764-772	6.8	24
176	Phase separation in Ga and N co-incorporated ZnO films and its effects on photo-response in photoelectrochemical water splitting. <i>Thin Solid Films</i> , 2011 , 519, 5983-5987	2.2	24
175	Low-temperature silicon homoepitaxy by hot-wire chemical vapor deposition with a Ta filament. <i>Journal of Crystal Growth</i> , 2006 , 287, 414-418	1.6	24
174	Nanocrystal formation in annealed a-SiO _{0.17} N _{0.07} :H films. <i>Nanotechnology</i> , 2004 , 15, 1831-1836	3.4	23
173	Lateral electron transport in Cu(In,Ga)Se ₂ investigated by electro-assisted scanning tunneling microscopy. <i>Applied Physics Letters</i> , 2005 , 87, 172106	3.4	23

172	Photon emission in CuInSe ₂ thin films observed by scanning tunneling microscopy. <i>Applied Physics Letters</i> , 2005 , 86, 143115	3.4	23
171	Revealing Surface Modifications of Potassium-Fluoride-Treated Cu(In,Ga)Se ₂ : A Study of Material Structure, Chemistry, and Photovoltaic Performance. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600013	4.6	22
170	Temperature-Dependent Solubility of Solid Electrolyte Interphase on Silicon Electrodes. <i>ACS Energy Letters</i> , 2019 , 4, 2770-2775	20.1	22
169	Mott insulators: An early selection criterion for materials for photoelectrochemical H ₂ production. <i>Journal of Renewable and Sustainable Energy</i> , 2011 , 3, 053101	2.5	22
168	Inhomogeneous Doping of Perovskite Materials by Dopants from Hole-Transport Layer. <i>Matter</i> , 2020 , 2, 261-272	12.7	22
167	Identification and analysis of partial shading breakdown sites in CuIn _x Ga(1-x)Se ₂ modules. <i>Solar Energy</i> , 2018 , 161, 1-5	6.8	21
166	Effect of Water Vapor, Temperature, and Rapid Annealing on Formamidinium Lead Triiodide Perovskite Crystallization. <i>ACS Energy Letters</i> , 2016 , 1, 155-161	20.1	21
165	Quantitative Determination of Grain-Boundary Recombination Velocity in CdTe by Cathodoluminescence Measurements and Numerical Simulations. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 1722-1726	3.7	20
164	Comparative study of defect transition energy calculation methods: The case of oxygen vacancy in In ₂ O ₃ and ZnO. <i>Physical Review B</i> , 2012 , 86,	3.3	20
163	Cathodoluminescence Analysis of Grain Boundaries and Grain Interiors in Thin-Film CdTe. <i>IEEE Journal of Photovoltaics</i> , 2014 , 4, 1671-1679	3.7	19
162	Symmetry-breaking-induced enhancement of visible light absorption in delafossite alloys. <i>Applied Physics Letters</i> , 2009 , 94, 251907	3.4	19
161	Impact of Wide-Ranging Nanoscale Chemistry on Band Structure at Cu(In, Ga)Se Grain Boundaries. <i>Scientific Reports</i> , 2017 , 7, 14163	4.9	18
160	Investigating PID shunting in polycrystalline silicon modules via multiscale, multitechnique characterization. <i>Progress in Photovoltaics: Research and Applications</i> , 2018 , 26, 377-384	6.8	18
159	Perovskite quantum dot solar cells: Mapping interfacial energetics for improving charge separation. <i>Nano Energy</i> , 2020 , 78, 105319	17.1	17
158	Nonuniform Ionic and Electronic Transport of Ceramic and Polymer/Ceramic Hybrid Electrolyte by Nanometer-Scale Operando Imaging for Solid-State Battery. <i>Advanced Energy Materials</i> , 2020 , 10, 2000215	21.8	17
157	Effect of substrate temperature on the photoelectrochemical responses of Ga and N co-doped ZnO films. <i>Journal of Materials Science</i> , 2010 , 45, 5218-5222	4.3	17
156	3-D point defect density distributions in thin film Cu(In,Ga)Se ₂ measured by atom probe tomography. <i>Acta Materialia</i> , 2016 , 102, 32-37	8.4	16
155	Bandgap engineering of Cu(In _{1-x} Ga _x)Se ₂ absorber layers fabricated using CuInSe ₂ and CuGaSe ₂ targets for one-step sputtering process. <i>Optical Materials Express</i> , 2016 , 6, 3541	2.6	16

154	Luminescence methodology to determine grain-boundary, grain-interior, and surface recombination in thin-film solar cells. <i>Journal of Applied Physics</i> , 2018 , 124, 113104	2.5	16
153	LDA+U/GGA+U calculations of structural and electronic properties of CdTe: Dependence on the effective U parameter. <i>Computational Materials Science</i> , 2015 , 98, 18-23	3.2	15
152	Emission Control from Transition Metal Dichalcogenide Monolayers by Aggregation-Induced Molecular Rotors. <i>ACS Nano</i> , 2020 , 14, 7444-7453	16.7	15
151	Origin of Bonding between the SWCNT and the Fe ₃ O ₄ (001) Surface and the Enhanced Electrical Conductivity. <i>Journal of Physical Chemistry Letters</i> , 2011 , 2, 2853-2858	6.4	15
150	The effects of Bi alloying in Cu delafossites: A density functional theory study. <i>Journal of Applied Physics</i> , 2011 , 109, 113710	2.5	15
149	Electronic and optical properties of CoX ₂ O ₄ (X = Al, Ga, In) alloys. <i>Applied Physics Letters</i> , 2012 , 100, 023901	3.0	14
148	Transmission electron microscopy of chalcogenide thin-film photovoltaic materials. <i>Current Opinion in Solid State and Materials Science</i> , 2012 , 16, 39-44	12	14
147	Carrier diffusion and radiative recombination in CdTe thin films. <i>Applied Physics Letters</i> , 2002 , 81, 3161-3163	3.6	14
146	No Evidence for Passivation Effects of Na and K at Grain Boundaries in Polycrystalline Cu(In,Ga)Se ₂ Thin Films for Solar Cells. <i>Solar Rrl</i> , 2019 , 3, 1900095	7.1	13
145	Effect of Crystallographic Orientation and Nanoscale Surface Morphology on Poly-Si/SiO Contacts for Silicon Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 42021-42031	9.5	13
144	Fabrication and Characterization of CZTS Thin Films Prepared by the Sulfurization of RF-Sputtered Stacked Metal Precursors. <i>Journal of Electronic Materials</i> , 2014 , 43, 3145-3154	1.9	13
143	Effect of gas ambient and varying RF sputtering power for bandgap narrowing of mixed (ZnO:GaN) thin films for solar driven hydrogen production. <i>Journal of Power Sources</i> , 2013 , 232, 74-78	8.9	13
142	Latest developments in the x-ray based characterization of thin-film solar cells 2015 ,		13
141	Sub-Bandgap Luminescence from Doped Polycrystalline and Amorphous Silicon Films and Its Application to Understanding Passivating-Contact Solar Cells. <i>ACS Applied Energy Materials</i> , 2018 , 1, 6619-6625 ¹³	6.1	13
140	Protection of GaInP Photocathodes by Direct Photoelectrodeposition of MoS Thin Films. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 25115-25122	9.5	12
139	Defect-band photoluminescence imaging on multi-crystalline silicon wafers. <i>Physica Status Solidi - Rapid Research Letters</i> , 2012 , 6, 190-192	2.5	12
138	Comprehensive characterization of CIGS absorber layers grown by one-step sputtering process. <i>Ceramics International</i> , 2019 , 45, 4424-4430	5.1	12
137	Imaging Spatial Variations of Optical Bandgaps in Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2019 , 9, 1802790	21.8	12

136	Influence of CdTe Deposition Temperature and Window Thickness on CdTe Grain Size and Lifetime After CdCl ₂ Recrystallization. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 600-603	3.7	11
135	New Polytypoid SnO ₂ (ZnO:Sn) _m Nanowire: Characterization and Calculation of Its Electronic Structure. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 5009-5013	3.8	11
134	Unusual nonlinear strain dependence of valence-band splitting in ZnO. <i>Physical Review B</i> , 2012 , 86,	3.3	11
133	Amorphous copper tungsten oxide with tunable band gaps. <i>Journal of Applied Physics</i> , 2010 , 108, 043502.	2.5	11
132	Nanoscale imaging of exciton transport in organic photovoltaic semiconductors by tip-enhanced tunneling luminescence. <i>Nano Letters</i> , 2009 , 9, 3904-8	11.5	11
131	Microscopic Observation of Solid Electrolyte Interphase Bilayer Inversion on Silicon Oxide. <i>ACS Energy Letters</i> , 2020 , 5, 3657-3662	20.1	11
130	Cation ratio fluctuations in Cu ₂ ZnSnS ₄ at the 20 nm length scale investigated by analytical electron microscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 2392-2399	1.6	11
129	Evolution of solid electrolyte interphase and active material in the silicon wafer model system. <i>Journal of Power Sources</i> , 2021 , 482, 228946	8.9	11
128	Contrasting the Material Chemistry of CuZnSnSe and CuZnSnS ₂ . <i>Advanced Science</i> , 2016 , 3, 1500320	13.6	10
127	The structure and properties of (aluminum, oxygen) defect complexes in silicon. <i>Journal of Applied Physics</i> , 2013 , 114, 063520	2.5	10
126	Transmission electron microscopy study of dislocations and interfaces in CdTe solar cells. <i>Thin Solid Films</i> , 2011 , 519, 7168-7172	2.2	9
125	Effect of Surface Texture on Pinhole Formation in SiO ₂ -Based Passivated Contacts for High-Performance Silicon Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 55737-55745	9.5	9
124	Suppression of the Cu_{2-x}S Secondary Phases in CZTS Films Through Controlling the Film Elemental Composition. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 1470-1475	3.7	8
123	Destructive reverse bias pinning in perovskite/silicon tandem solar modules caused by perovskite hysteresis under dynamic shading. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 4067-4075	5.8	8
122	Failure analysis of field-failed bypass diodes. <i>Progress in Photovoltaics: Research and Applications</i> , 2020 , 28, 909-918	6.8	8
121	Direct imaging of enhanced current collection on grain boundaries of Cu(In,Ga)Se ₂ solar cells. <i>Applied Physics Letters</i> , 2014 , 104, 063902	3.4	8
120	Correlation between grain composition and charge carrier collection in Cu(In,Ga)Se ₂ solar cells 2015 ,		8
119	Advantages of using piezoelectric quantum structures for photovoltaics. <i>Journal of Applied Physics</i> , 2003 , 93, 626-631	2.5	8

118	TfC17. Microstructural, compositional and electrical characterization of ferroelectric lead zirconate titanate thin films. <i>Ferroelectrics</i> , 1992 , 134, 303-312	0.6	8
117	Impact of dopant-induced optoelectronic tails on open-circuit voltage in arsenic-doped Cd(Se)Te solar cells. <i>Journal of Applied Physics</i> , 2020 , 128, 103105	2.5	8
116	Interface Characterization of Single-Crystal CdTe Solar Cells With VOC > 950 mV. <i>IEEE Journal of Photovoltaics</i> , 2016 , 6, 1650-1653	3.7	8
115	Microscopic Real-Space Resistance Mapping Across CdTe Solar Cell Junctions by Scanning Spreading Resistance Microscopy. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 395-400	3.7	7
114	Creating intermediate bands in ZnTe via co-alloying approach. <i>Applied Physics Express</i> , 2014 , 7, 121201	2.4	7
113	Effect of grain alignment on lateral carrier transport in aligned-crystalline silicon films on polycrystalline substrates. <i>Journal of Materials Research</i> , 2007 , 22, 821-825	2.5	7
112	The Effects of an Oxide Layer on the Kinetics of Metal-Induced Crystallization of a-Si:H. <i>Journal of the Electrochemical Society</i> , 2005 , 152, G354	3.9	7
111	Effects of hydrogen on the growth of nanocrystalline silicon films by electron-beam excited plasma chemical vapor deposition. <i>Journal of Applied Physics</i> , 2000 , 88, 6848-6855	2.5	7
110	Cu(In,Ga)Se ₂ Thin-Film Evolution During Growth from (In,Ga) ₂ Se ₃ Precursors. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 668, 1		7
109	Optical and Structural Properties of High-Efficiency Epitaxial Cu(In,Ga)Se Grown on GaAs. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 3150-3160	9.5	7
108	Cathodoluminescence spectrum imaging analysis of CdTe thin-film bevels. <i>Journal of Applied Physics</i> , 2016 , 120, 105704	2.5	7
107	Hydrogen-Assisted Defect Engineering of Doped Poly-Si Films for Passivating Contact Solar Cells. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8783-8791	6.1	7
106	Spatially Resolved Recombination Analysis of CuIn _x Ga _{1-x} Se ₂ Absorbers With Alkali Postdeposition Treatments. <i>IEEE Journal of Photovoltaics</i> , 2018 , 8, 1833-1840	3.7	7
105	Hydrogenation Mechanisms of Poly-Si/SiO _x Passivating Contacts by Different Capping Layers. <i>Solar Rrl</i> , 2020 , 4, 2070033	7.1	6
104	In situ investigation of halide incorporation into perovskite solar cells. <i>MRS Communications</i> , 2017 , 7, 575-582	2.7	6
103	Origin of charge separation in III-nitride nanowires under strain. <i>Applied Physics Letters</i> , 2011 , 99, 262103	3.4	6
102	Templated Growth and Passivation of Vertically Oriented Antimony Selenide Thin Films for High-Efficiency Solar Cells in Substrate Configuration. <i>Advanced Functional Materials</i> , 2017 , 27, 2110032	15.6	6
101	Hydrogenation Mechanisms of Poly-Si/SiO _x Passivating Contacts by Different Capping Layers. <i>Solar Rrl</i> , 2020 , 4, 1900476	7.1	6

100	Large-Area Material and Junction Damage in cSi Solar Cells by Potential-Induced Degradation. <i>Solar Rrl</i> , 2019 , 3, 1800303	7.1	6
99	Effect of Window-Layer Materials on p-n Junction Location in Cu(In,Ga)Se ₂ Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 308-312	3.7	6
98	Thin-Film Module Reverse-Bias Breakdown Sites Identified by Thermal Imaging 2018 ,		6
97	Near-field transport imaging applied to photovoltaic materials. <i>Solar Energy</i> , 2017 , 153, 134-141	6.8	5
96	Modifications of Textured Silicon Surface Morphology and Its Effect on Poly-Si/SiO _x Contact Passivation for Silicon Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 1513-1521	3.7	5
95	Investigating PID Shunting in Polycrystalline CIGS Devices via Multi-Scale, Multi-Technique Characterization. <i>IEEE Journal of Photovoltaics</i> , 2019 , 9, 559-564	3.7	5
94	Quantification of Sheet Resistance in Boron-Diffused Silicon Using Micro-Photoluminescence Spectroscopy at Room Temperature. <i>Solar Rrl</i> , 2017 , 1, 1700088	7.1	5
93	Locating the electrical junctions in Cu(In,Ga)Se ₂ and Cu ₂ ZnSnSe ₄ solar cells by scanning capacitance spectroscopy. <i>Progress in Photovoltaics: Research and Applications</i> , 2017 , 25, 33-40	6.8	5
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