

# Lars Korte

## List of Publications by Year in descending order

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146  
papers

10,579  
citations

71004

43  
h-index

37326

100  
g-index

148  
all docs

148  
docs citations

148  
times ranked

10965  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid Perovskite Degradation from an Optical Perspective: A Spectroscopic Ellipsometry Study from the Deep Ultraviolet to the Middle Infrared. <i>Advanced Optical Materials</i> , 2022, 10, 2101553.	3.6	10
2	Indirect excitation and luminescence activation of Tb doped indium tin oxide and its impact on the host's optical and electrical properties. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 210002.	1.3	4
3	Monolithic Perovskite/Silicon Tandem Solar Cells Fabricated Using Industrial p-type Polycrystalline Silicon on Oxide/Passivated Emitter and Rear Cell Silicon Bottom Cell Technology. <i>Solar Rrl</i> , 2022, 6, .	3.1	17
4	Field Effect Passivation in Perovskite Solar Cells by a LiF Interlayer. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	53
5	Imaging of Bandtail States in Silicon Heterojunction Solar Cells: Nanoscopic Current Effects on Photovoltaics. <i>ACS Applied Nano Materials</i> , 2021, 4, 2404-2412.	2.4	2
6	Silicon interface passivation studied by modulated surface photovoltage spectroscopy. <i>Journal of Physics: Conference Series</i> , 2021, 1841, 012003.	0.3	1
7	27.9% Efficient Monolithic Perovskite/Silicon Tandem Solar Cells on Industry Compatible Bottom Cells. <i>Solar Rrl</i> , 2021, 5, 2100244.	3.1	59
8	Optoelectronic Inactivity of Dislocations in Cu(In,Ga)Se <sub>2</sub> Thin Films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2021, 15, 2100042.	1.2	2
9	Electrical and optical simulation of perovskite/silicon tandem solar cells using Tcad-Sentaurus. , 2021, , .		3
10	Low-Resistance Hole Contact Stacks for Interdigitated Rear-Contact Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2021, 11, 914-925.	1.5	5
11	Revisiting the Determination of the Valence Band Maximum and Defect Formation in Halide Perovskites for Solar Cells: Insights from Highly Sensitive Near-UV Photoemission Spectroscopy. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 43540-43553.	4.0	20
12	Revealing Fundamental Efficiency Limits of Monolithic Perovskite/Silicon Tandem Photovoltaics through Subcell Characterization. <i>ACS Energy Letters</i> , 2021, 6, 3982-3991.	8.8	22
13	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.	0.8	13
14	Evolution of Optical, Electrical, and Structural Properties of Indium Tungsten Oxide upon High Temperature Annealing. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 2000165.	0.8	1
15	Versatility of Nanocrystalline Silicon Films: from Thin-Film to Perovskite/c-Si Tandem Solar Cell Applications. <i>Coatings</i> , 2020, 10, 759.	1.2	8
16	Monolithic perovskite/silicon tandem solar cell with >29% efficiency by enhanced hole extraction. <i>Science</i> , 2020, 370, 1300-1309.	6.0	1,120
17	Monolithic Perovskite Tandem Solar Cells: A Review of the Present Status and Advanced Characterization Methods Toward 30% Efficiency. <i>Advanced Energy Materials</i> , 2020, 10, 1904102.	10.2	321
18	Three-Terminal Perovskite/Silicon Tandem Solar Cells with Top and Interdigitated Rear Contacts. <i>ACS Applied Energy Materials</i> , 2020, 3, 1381-1392.	2.5	63

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19	Low-Temperature Atomic Layer Deposited Magnesium Oxide as a Passivating Electron Contact for c-Si-Based Solar Cells. IEEE Journal of Photovoltaics, 2020, 10, 398-406.	1.5	22
20	Implementation of ALD-grown MgO layers as electron-selective contact for silicon solar cells. , 2020, , ,		0
21	Interface Molecular Engineering for Laminated Monolithic Perovskite/Silicon Tandem Solar Cells with 80.4% Fill Factor. Advanced Functional Materials, 2019, 29, 1901476.	7.8	43
22	Stability and Dark Hysteresis Correlate in NiO-Based Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901642.	10.2	69
23	From Bulk to Surface: Sodium Treatment Reduces Recombination at the Nickel Oxide/Perovskite Interface. Advanced Materials Interfaces, 2019, 6, 1900789.	1.9	45
24	Highly efficient monolithic perovskite silicon tandem solar cells: analyzing the influence of current mismatch on device performance. Sustainable Energy and Fuels, 2019, 3, 1995-2005.	2.5	208
25	Aluminum-Doped Zinc Oxide as Front Electrode for Rear Emitter Silicon Heterojunction Solar Cells with High Efficiency. Applied Sciences (Switzerland), 2019, 9, 862.	1.3	24
26	Mixtures of Dopant-Free Spiro-OMeTAD and Water-Free PEDOT as a Passivating Hole Contact in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 9172-9181.	4.0	28
27	Infrared Light Management Using a Nanocrystalline Silicon Oxide Interlayer in Monolithic Perovskite/Silicon Heterojunction Tandem Solar Cells with Efficiency above 25%. Advanced Energy Materials, 2019, 9, 1803241.	10.2	239
28	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
29	Conformal monolayer contacts with lossless interfaces for perovskite single junction and monolithic tandem solar cells. Energy and Environmental Science, 2019, 12, 3356-3369.	15.6	519
30	Band-fluctuations model for the fundamental absorption of crystalline and amorphous semiconductors: a dimensionless joint density of states analysis. Journal Physics D: Applied Physics, 2019, 52, 105303.	1.3	20
31	ITO-Free Silicon Heterojunction Solar Cells With ZnO:Al/SiO <sub>2</sub> Front Electrodes Reaching a Conversion Efficiency of 23%. IEEE Journal of Photovoltaics, 2019, 9, 34-39.	1.5	52
32	Toward Annealing-Stable Molybdenum-Oxide-Based Hole-Selective Contacts For Silicon Photovoltaics. Solar Rrl, 2018, 2, 1700227.	3.1	42
33	In-system photoelectron spectroscopy study of tin oxide layers produced from tetrakis(dimethylamino)tin by plasma enhanced atomic layer deposition. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2018, 36, .	0.9	8
34	Ultra-thin nanocrystalline n-type silicon oxide front contact layers for rear-emitter silicon heterojunction solar cells. Solar Energy Materials and Solar Cells, 2018, 179, 386-391.	3.0	52
35	Electronic structure of indium-tungsten-oxide alloys and their energy band alignment at the heterojunction to crystalline silicon. Applied Physics Letters, 2018, 112, .	1.5	6
36	Optical characterization and bandgap engineering of flat and wrinkle-textured FA <sub>0.83</sub> Cs <sub>0.17</sub> Pb(I <sub>1-x</sub> Br <sub>x</sub> ) <sub>3</sub> perovskite thin films. Journal of Applied Physics, 2018, 123, .	1.1	25

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37	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.	15.6	281
38	Nanocrystalline silicon oxide interlayer in monolithic perovskite/silicon heterojunction tandem solar cells with total current density >39 mA/cm <sup>2</sup> . , 2018, , .		2
39	Interdigitated back contact silicon heterojunction solar cells: Towards an industrially applicable structuring method. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	5
40	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.	1.7	48
41	Cs <sub>x</sub> FA <sub>1-x</sub> Pb(I <sub>y</sub> Br <sub>3-y</sub> ) <sub>3</sub> Perovskite Compositions: the Appearance of Wrinkled Morphology and its Impact on Solar Cell Performance. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17123-17135.	1.5	42
42	Nanocrystalline n-Type Silicon Oxide Front Contacts for Silicon Heterojunction Solar Cells: Photocurrent Enhancement on Planar and Textured Substrates. <i>IEEE Journal of Photovoltaics</i> , 2018, 8, 70-78.	1.5	51
43	Determination of the complex refractive index, optical bandgap and Urbach energy of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> and FA <sub>1-y</sub> Cs <sub>y</sub> Pb(I <sub>1-x</sub> Br <sub>x</sub> ) <sub>3</sub> perovskite thin films. , 2018, , .		0
44	Efficient Light Management by Textured Nanoimprinted Layers for Perovskite Solar Cells. <i>ACS Photonics</i> , 2017, 4, 1232-1239.	3.2	103
45	It Takes Two to Tango—Double-Layer Selective Contacts in Perovskite Solar Cells for Improved Device Performance and Reduced Hysteresis. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 17245-17255.	4.0	107
46	Nondestructive Probing of Perovskite Silicon Tandem Solar Cells Using Multiwavelength Photoluminescence Mapping. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 1081-1086.	1.5	24
47	Determination of the complex refractive index and optical bandgap of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> thin films. <i>Journal of Applied Physics</i> , 2017, 121, .	1.1	38
48	Roadmap and roadblocks for the band gap tunability of metal halide perovskites. <i>Journal of Materials Chemistry A</i> , 2017, 5, 11401-11409.	5.2	307
49	Optimized Metallization for Interdigitated Back Contact Silicon Heterojunction Solar Cells. <i>Solar Rrl</i> , 2017, 1, 1700021.	3.1	12
50	Nanocrystalline silicon emitter optimization for Si-HJ solar cells: Substrate selectivity and CO <sub>2</sub> plasma treatment effect. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1532958.	0.8	36
51	ITO-free metallization for interdigitated back contact silicon heterojunction solar cells. <i>Energy Procedia</i> , 2017, 124, 379-383.	1.8	4
52	Sputtered Tungsten Oxide as Hole Contact for Silicon Heterojunction Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 1209-1215.	1.5	48
53	Numerical optical optimization of monolithic planar perovskite-silicon tandem solar cells with regular and inverted device architectures. <i>Optics Express</i> , 2017, 25, A473.	1.7	114
54	Aluminium metallisation for interdigitated back-contact silicon heterojunction solar cells. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 08MB22.	0.8	4

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55	<i>In situ</i> graphene doping as a route toward efficient perovskite tandem solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 1989-1996.	0.8	11
56	Wild band edges: The role of bandgap grading and band-edge fluctuations in high-efficiency chalcogenide devices. , 2016, , .		11
57	Back- and Front-side Texturing for Light-management in Perovskite / Silicon-heterojunction Tandem Solar Cells. <i>Energy Procedia</i> , 2016, 102, 43-48.	1.8	14
58	Optimization of PECVD process for ultra-thin tunnel SiO <sub>2</sub> film as passivation layer for silicon heterojunction solar cells. , 2016, , .		4
59	Towards optical optimization of planar monolithic perovskite/silicon-heterojunction tandem solar cells. <i>Journal of Optics (United Kingdom)</i> , 2016, 18, 064012.	1.0	82
60	Inorganic photovoltaics – Planar and nanostructured devices. <i>Progress in Materials Science</i> , 2016, 82, 294-404.	16.0	50
61	Oxidation of Si Surfaces: Effect of Ambient Air and Water Treatments on Surface Charge and Interface State Density. <i>Solid State Phenomena</i> , 2016, 255, 331-337.	0.3	3
62	Oxygen vacancies in tungsten oxide and their influence on tungsten oxide/silicon heterojunction solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 158, 77-83.	3.0	129
63	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.	1.5	13
64	A mixed-cation lead mixed-halide perovskite absorber for tandem solar cells. <i>Science</i> , 2016, 351, 151-155.	6.0	2,514
65	Monolithic perovskite/silicon-heterojunction tandem solar cells processed at low temperature. <i>Energy and Environmental Science</i> , 2016, 9, 81-88.	15.6	536
66	Numerical Optical Optimization of Planar Monolithic Perovskite-Silicon Tandem Solar Cells. , 2016, , .		0
67	Valence band alignment and hole transport in amorphous/crystalline silicon heterojunction solar cells. <i>Applied Physics Letters</i> , 2015, 107, 013902.	1.5	47
68	Silicon heterojunction solar cells with nanocrystalline Silicon Oxide emitter: Insights into charge carrier transport. , 2015, , .		1
69	Valence band offset in heterojunctions between crystalline silicon and amorphous silicon (sub)oxides (a-SiO <sub>x</sub> :H, 0 &lt; x < 2). <i>Applied Physics Letters</i> , 2015, 106, .	1.5	34
70	Investigation of selective junctions using a newly developed tunnel current model for solar cell applications. <i>Solar Energy Materials and Solar Cells</i> , 2015, 141, 14-23.	3.0	233
71	Silicon Heterojunction Solar Cells With Nanocrystalline Silicon Oxide Emitter: Insights Into Charge Carrier Transport. <i>IEEE Journal of Photovoltaics</i> , 2015, 5, 1601-1605.	1.5	25
72	p-type microcrystalline silicon oxide emitter for silicon heterojunction solar cells allowing current densities above 40 mA/cm <sup>2</sup> . <i>Applied Physics Letters</i> , 2015, 106, .	1.5	93

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73	Perovskite Solar Cells with Large-Area CVD-Graphene for Tandem Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2745-2750.	2.1	170
74	PECVD-AlO <sub>x</sub> /SiN <sub>x</sub> passivation stacks on wet chemically oxidized silicon: Constant voltage stress investigations of charge dynamics and interface defect states. <i>Solar Energy Materials and Solar Cells</i> , 2015, 135, 49-56.	3.0	30
75	<i>In Situ</i> PL and SPV Monitored Charge Carrier Injection During Metal Assisted Etching of Intrinsic a-Si Layers on c-Si. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 11654-11659.	4.0	7
76	High mobility In <sub>2</sub> O <sub>3</sub> :H as contact layer for a-Si:H/c-Si heterojunction and $\frac{1}{4}$ c-Si:H thin film solar cells. <i>Thin Solid Films</i> , 2015, 594, 316-322.	0.8	24
77	Nanocrystalline Silicon Oxide Emitters for Silicon Hetero Junction Solar Cells. <i>Energy Procedia</i> , 2015, 77, 304-310.	1.8	16
78	Plasma-enhanced atomic-layer-deposited MoO <sub>x</sub> emitters for silicon heterojunction solar cells. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 120, 811-816.	1.1	30
79	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.	1.8	37
80	Towards solar cell emitters based on colloidal Si nanocrystals. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2015, 212, 156-161.	0.8	3
81	Evolution of the Charge Carrier Lifetime Characteristics in Crystalline Silicon Wafers During Processing of Heterojunction Solar Cells. <i>Energy Procedia</i> , 2014, 55, 219-228.	1.8	10
82	Solution-processed amorphous silicon surface passivation layers. <i>Applied Physics Letters</i> , 2014, 105, 122113.	1.5	13
83	PECVD-AlO <sub>x</sub> /SiN <sub>x</sub> Passivation Stacks on Silicon: Effective Charge Dynamics and Interface Defect State Spectroscopy. <i>Energy Procedia</i> , 2014, 55, 845-854.	1.8	31
84	Passivation Properties of Subnanometer Thin Interfacial Silicon Oxide Films. <i>Energy Procedia</i> , 2014, 55, 805-812.	1.8	8
85	Influence of black silicon surfaces on the performance of back-contacted back silicon heterojunction solar cells. <i>Optics Express</i> , 2014, 22, A1469.	1.7	10
86	Field-effect passivation and degradation analyzed with photoconductance decay measurements. <i>Applied Physics Letters</i> , 2014, 104, 193504.	1.5	4
87	Amorphous/crystalline silicon heterojunction solar cells with black silicon texture. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 8, 831-835.	1.2	13
88	Direct determination of the band offset in atomic layer deposited ZnO/hydrogenated amorphous silicon heterojunctions from X-ray photoelectron spectroscopy valence band spectra. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	12
89	Comparison of TMB and B <sub>2</sub> H <sub>6</sub> as Precursors for Emitter Doping in High Efficiency Silicon Hetero Junction Solar Cells. <i>Energy Procedia</i> , 2014, 60, 123-128.	1.8	12
90	Hydrogen Plasma Treatments of Amorphous/Crystalline Silicon Heterojunctions. <i>Energy Procedia</i> , 2014, 55, 827-833.	1.8	15

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91	Over 20% conversion efficiency on silicon heterojunction solar cells by IPA-free substrate texturization. <i>Applied Surface Science</i> , 2014, 301, 56-62.	3.1	44
92	Towards wafer quality crystalline silicon thin-film solar cells on glass. <i>Solar Energy Materials and Solar Cells</i> , 2014, 128, 190-197.	3.0	105
93	The influence of space charge regions on effective charge carrier lifetime in thin films and resulting opportunities for materials characterization. <i>Journal of Applied Physics</i> , 2013, 113, 044510.	1.1	3
94	Silicon heterojunction solar cells: Optimization of emitter and contact properties from analytical calculation and numerical simulation. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2013, 178, 593-598.	1.7	39
95	Approach for a Simplified Fabrication Process for IBC-SHJ Solar Cells with High Fill Factors. <i>Energy Procedia</i> , 2013, 38, 732-736.	1.8	9
96	Amorphous Silicon Passivation of Surfaces Promoting Epitaxy. <i>Energy Procedia</i> , 2013, 38, 855-861.	1.8	10
97	Simulation of Contact Schemes for Silicon Heterostructure Rear Contact Solar Cells. <i>Energy Procedia</i> , 2013, 38, 677-683.	1.8	9
98	Passivation of Textured Silicon Wafers: Influence of Pyramid Size Distribution, a-Si:H Deposition Temperature, and Post-treatment. <i>Energy Procedia</i> , 2013, 38, 881-889.	1.8	33
99	Polycrystalline silicon heterojunction thin-film solar cells on glass exhibiting 582mV open-circuit voltage. <i>Solar Energy Materials and Solar Cells</i> , 2013, 115, 7-10.	3.0	50
100	An effective medium approach for modeling polycrystalline silicon thin film solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2013, 117, 152-160.	3.0	7
101	Atomic Structure of Interface States in Silicon Heterojunction Solar Cells. <i>Physical Review Letters</i> , 2013, 110, 136803.	2.9	29
102	Impact of the transparent conductive oxide work function on injection-dependent a-Si:H/c-Si band bending and solar cell parameters. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	55
103	Hydrogen plasma treatments for passivation of amorphous-crystalline silicon-heterojunctions on surfaces promoting epitaxy. <i>Applied Physics Letters</i> , 2013, 102, 122106.	1.5	131
104	Photoconductivity and optical properties of silicon coated by thin TiO <sub>2</sub> film <i>in situ</i> doped by Au nanoparticles. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 687-694.	0.8	8
105	ZnO:Al with tuned properties for photovoltaic applications: thin layers and high mobility material. <i>Proceedings of SPIE</i> , 2013, , .	0.8	3
106	Structural properties of Si/SiO <sub>2</sub> nanostructures grown by decomposition of substoichiometric Si <sub>x</sub> N <sub>y</sub> layers for photovoltaic applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 676-681.	0.8	0
107	2D modelling of polycrystalline silicon thin film solar cells. <i>EPJ Photovoltaics</i> , 2013, 4, 45104.	0.8	0
108	Wet-Chemical Preparation of Textured Silicon Solar Cell Substrates: Surface Conditioning and Electronic Interface Properties. <i>Solid State Phenomena</i> , 2012, 187, 349-352.	0.3	6

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109	Band bending and determination of band offsets in amorphous/crystalline silicon heterostructures from planar conductance measurements. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	43
110	Structural investigations of silicon nanostructures grown by self-organized island formation for photovoltaic applications. <i>Applied Physics A: Materials Science and Processing</i> , 2012, 108, 719-726.	1.1	5
111	Influence of the amorphous/crystalline silicon heterostructure properties on planar conductance measurements. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 2236-2240.	1.5	3
112	Comparison of growth methods for Si/SiO <sub>2</sub> nanostructures as nanodot hetero-emitters for photovoltaic applications. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 2253-2256.	1.5	4
113	Impact of a-Si:H hydrogen depth profiles on passivation properties in a-Si:H/c-Si heterojunctions. <i>Thin Solid Films</i> , 2012, 520, 4439-4444.	0.8	20
114	Electronic Properties of Ultrathin a-Si:H Layers and the a-Si:H/c-Si Interface. <i>Engineering Materials</i> , 2012, , 161-221.	0.3	6
115	Discerning passivation mechanisms at a-Si:H/c-Si interfaces by means of photoconductance measurements. <i>Applied Physics Letters</i> , 2011, 98, .	1.5	79
116	Etching of a-Si:H on c-Si absorber monitored by in situ photoluminescence measurements. <i>Energy Procedia</i> , 2011, 8, 269-274.	1.8	4
117	Impact of Fermi-level dependent defect equilibration on Voc of amorphous/crystalline silicon heterojunction solar cells. <i>Energy Procedia</i> , 2011, 8, 282-287.	1.8	32
118	Interdigitated Back-Contacted Silicon Heterojunction Solar Cells With Improved Fill Factor and Efficiency. <i>IEEE Journal of Photovoltaics</i> , 2011, 1, 130-134.	1.5	13
119	Efficient interdigitated back-contacted silicon heterojunction solar cells. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011, 5, 159-161.	1.2	83
120	Effect of wet-chemical substrate pretreatment on electronic interface properties and recombination losses of a-Si:H/c-Si and a-Si <sub>x</sub> :H/c-Si heterointerfaces. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 879-882.	0.8	18
121	Doping type and thickness dependence of band offsets at the amorphous/crystalline silicon heterojunction. <i>Journal of Applied Physics</i> , 2011, 109, 063714.	1.1	44
122	Band lineup in amorphous/crystalline silicon heterojunctions and the impact of hydrogen microstructure and topological disorder. <i>Physical Review B</i> , 2011, 83, .	1.1	96
123	Band alignment at amorphous/crystalline silicon hetero-interfaces. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1321, 323.	0.1	2
124	High-forward-bias transport mechanism in a-Si:H/c-Si heterojunction solar cells. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2010, 207, 657-660.	0.8	8
125	A recombination model for a-Si:H/c-Si heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1005-1010.	0.8	32
126	Impact of a-Si:H structural properties on the annealing behavior of a-Si:H/c-Si heterostructures used as precursors for high-efficiency solar cells. <i>Materials Research Society Symposia Proceedings</i> , 2010, 1268, 1.	0.1	2



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127	Interplay of amorphous silicon disorder and hydrogen content with interface defects in amorphous/crystalline silicon heterojunctions. Applied Physics Letters, 2010, 96, .	1.5	127
128	Electrical transport mechanisms in a-Si:H/c-Si heterojunction solar cells. Journal of Applied Physics, 2010, 107, .	1.1	100
129	CuInS <sub>2</sub> –CdS heterojunction valence band offset measured with near-UV constant final state yield spectroscopy. Journal of Applied Physics, 2009, 106, 073712.	1.1	20
130	Accelerated interface defect removal in amorphous/crystalline silicon heterostructures using pulsed annealing and microwave heating. Applied Physics Letters, 2009, 95, .	1.5	37
131	Planar rear emitter back contact silicon heterojunction solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 1900-1903.	3.0	27
132	Passivation of textured substrates for a-Si:H/c-Si hetero-junction solar cells: Effect of wet-chemical smoothing and intrinsic a-Si:H interlayer. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 159-160, 219-223.	1.7	38
133	Surface photovoltage investigation of recombination at the a-Si/c-Si heterojunction. Thin Solid Films, 2009, 517, 6396-6400.	0.8	7
134	Advances in a-Si:H/c-Si heterojunction solar cell fabrication and characterization. Solar Energy Materials and Solar Cells, 2009, 93, 905-910.	3.0	108
135	Wet-chemical passivation of atomically flat and structured silicon substrates for solar cell application. Applied Surface Science, 2008, 254, 3615-3625.	3.1	61
136	Optimisation of electronic interface properties of a-Si:H/c-Si hetero-junction solar cells by wet-chemical surface pre-treatment. Thin Solid Films, 2008, 516, 6775-6781.	0.8	51
137	Measurements of effective optical reflectivity using a conventional flatbed scanner—Fast assessment of optical layer properties. Solar Energy Materials and Solar Cells, 2008, 92, 844-850.	3.0	9
138	Investigation of gap states in phosphorous-doped ultra-thin a-Si:H by near-UV photoelectron spectroscopy. Journal of Non-Crystalline Solids, 2008, 354, 2138-2143.	1.5	62
139	Physical aspects of a-Si:H/c-Si hetero-junction solar cells. Thin Solid Films, 2007, 515, 7475-7480.	0.8	145
140	Physical and Technological Aspects of a-Si:H/c-Si Hetero-Junction Solar Cells. , 2006, , .		9
141	Electronic states in a-Si:H/c-Si heterostructures. Journal of Non-Crystalline Solids, 2006, 352, 1217-1220.	1.5	40
142	Characterization and optimization of the interface quality in amorphous/crystalline silicon heterojunction solar cells. Journal of Non-Crystalline Solids, 2006, 352, 1958-1961.	1.5	21
143	Density distribution of gap states in extremely thin a-Si:H layers on crystalline silicon wafers. Journal of Non-Crystalline Solids, 2004, 338-340, 211-214.	1.5	40
144	AFORS-HET, an open-source on demand numerical PC program for simulation of (thin film) heterojunction solar cells, version 1.2. , 0, , .		3

#	ARTICLE	IF	CITATIONS
145	Surface Optimization of Random Pyramid Textured Silicon Substrates for Improving Heterojunction Solar Cells. <i>Solid State Phenomena</i> , 0, 255, 338-343.	0.3	3
146	Optimization of Silicon Heterojunction Interface Passivation on p <sup>+</sup> - and n <sup>+</sup> -Type Wafers Using Optical Emission Spectroscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 0, , 2100511.	0.8	3