

David L Young

List of Publications by Year in descending order

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39
papers

2,195
citations

331670

21
h-index

377865

34
g-index

39
all docs

39
docs citations

39
times ranked

2568
citing authors

#	ARTICLE	IF	CITATIONS
1	Raising the one-sun conversion efficiency of III-V/Si solar cells to 32.8% for two junctions and 35.9% for three junctions. <i>Nature Energy</i> , 2017, 2, .	39.5	424
2	Characterization of Transparent Conducting Oxides. <i>MRS Bulletin</i> , 2000, 25, 58-65.	3.5	351
3	Growth and characterization of radio frequency magnetron sputter-deposited zinc stannate, Zn ₂ SnO ₄ , thin films. <i>Journal of Applied Physics</i> , 2002, 92, 310-319.	2.5	194
4	Polycrystalline silicon passivated tunneling contacts for high efficiency silicon solar cells. <i>Journal of Materials Research</i> , 2016, 31, 671-681.	2.6	133
5	Critical issues in the design of polycrystalline, thin-film tandem solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2003, 11, 359-375.	8.1	123
6	Realization of GaInP/Si Dual-Junction Solar Cells With 29.8% 1-Sun Efficiency. <i>IEEE Journal of Photovoltaics</i> , 2016, 6, 1012-1019.	2.5	114
7	Improved performance in ZnO/CdS/CuGaSe ₂ thin-film solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2003, 11, 535-541.	8.1	110
8	Progress Towards a 30% Efficient GaInP/Si Tandem Solar Cell. <i>Energy Procedia</i> , 2015, 77, 464-469.	1.8	87
9	Hydrogen passivation of poly-Si/SiO _x contacts for Si solar cells using Al ₂ O ₃ studied with deuterium. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	80
10	Effect of silicon oxide thickness on polysilicon based passivated contacts for high-efficiency crystalline silicon solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2018, 185, 270-276.	6.2	60
11	On the hydrogenation of Poly-Si passivating contacts by Al ₂ O ₃ and SiN thin films. <i>Solar Energy Materials and Solar Cells</i> , 2020, 215, 110592.	6.2	53
12	A simple method for the preparation of transparent p-type Ca-doped CuInO ₂ films: Pulsed-laser deposition from air-sintered Ca-doped Cu ₂ In ₂ O ₅ targets. <i>Applied Physics Letters</i> , 2004, 85, 3789-3791.	3.3	49
13	III-V-Based Optoelectronics with Low-Cost Dynamic Hydride Vapor Phase Epitaxy. <i>Crystals</i> , 2019, 9, 3.	2.2	42
14	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, .	3.3	41
15	Low-cost plasma immersion ion implantation doping for Interdigitated back passivated contact (IBPC) solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2016, 158, 68-76.	6.2	37
16	Interdigitated Back Passivated Contact (IBPC) Solar Cells Formed by Ion Implantation. <i>IEEE Journal of Photovoltaics</i> , 2016, 6, 41-47.	2.5	36
17	Effects of hydrogen content in sputtering ambient on ZnO:Al electrical properties. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 2787-2790.	3.1	31
18	Gallium-Doped Poly-Si:Ga/SiO ₂ Passivated Emitters to n-Cz Wafers With $V_{oc} > 730$ mV. <i>IEEE Journal of Photovoltaics</i> , 2017, 7, 1640-1645.	2.5	31

#	ARTICLE	IF	CITATIONS
19	Effect of Crystallographic Orientation and Nanoscale Surface Morphology on Poly-Si/SiO _x Contacts for Silicon Solar Cells. ACS Applied Materials & Interfaces, 2019, 11, 42021-42031.	8.0	29
20	Capacitance study of inversion at the amorphous-crystalline interface of n-type silicon heterojunction solar cells. Journal of Applied Physics, 2011, 110, .	2.5	25
21	Effect of the SiO ₂ interlayer properties with solid-source hydrogenation on passivated contact performance and surface passivation. Energy Procedia, 2017, 124, 295-301.	1.8	24
22	Changes in hydrogen concentration and defect state density at the poly-Si/SiO _x /c-Si interface due to firing. Solar Energy Materials and Solar Cells, 2021, 231, 111297.	6.2	19
23	Tunable Bandgap GaInAsP Solar Cells With 18.7% Photoconversion Efficiency Synthesized by Low-Cost and High-Growth Rate Hydride Vapor Phase Epitaxy. IEEE Journal of Photovoltaics, 2018, 8, 1577-1583.	2.5	13
24	Modifications of Textured Silicon Surface Morphology and Its Effect on Poly-Si/SiO _x Contact Passivation for Silicon Solar Cells. IEEE Journal of Photovoltaics, 2019, 9, 1513-1521.	2.5	13
25	Isolating p- and n-Doped Fingers With Intrinsic Poly-Si in Passivated Interdigitated Back Contact Silicon Solar Cells. IEEE Journal of Photovoltaics, 2020, 10, 1574-1581.	2.5	12
26	Self-Aligned Selective Area Front Contacts on Poly-Si/SiO _x Passivating Contact Silicon Solar Cells. IEEE Journal of Photovoltaics, 2022, 12, 678-689.	2.5	10
27	Measurement of poly-Si film thickness on textured surfaces by X-ray diffraction in poly-Si/SiO _x passivating contacts for monocrystalline Si solar cells. Solar Energy Materials and Solar Cells, 2022, 236, 111510.	6.2	9
28	Development of highly-efficient GaInP/Si Tandem Solar Cells. , 2015, , .		8
29	Trap-Assisted Dopant Compensation Prevents Shunting in Poly-Si Passivating Interdigitated Back Contact Silicon Solar Cells. ACS Applied Energy Materials, 2021, 4, 10774-10782.	5.1	8
30	Modeling, Characterization, and Properties of Transparent Conducting Oxides. , 2011, , 51-110.		6
31	Atomic structure of light-induced efficiency-degrading defects in boron-doped Czochralski silicon solar cells. Energy and Environmental Science, 2021, 14, 5416-5422.	30.8	6
32	Performance of III-V Solar Cells Grown on Reformed Mesoporous Ge Templates. IEEE Journal of Photovoltaics, 2022, 12, 337-343.	2.5	5
33	Photoacoustic and Optical Properties of Zinc-Stannate Thin Films. Materials Science Forum, 2006, 518, 465-470.	0.3	4
34	Accelerated reliability tests of n+ and p+ poly-Si passivated contacts. Solar Energy Materials and Solar Cells, 2022, 236, 111469.	6.2	3
35	Electronic Properties of Modified CuGaSe ₂ Solar Cells. Materials Research Society Symposia Proceedings, 2005, 865, 1121.	0.1	2
36	Critical interface: Poly-silicon to tunneling SiO ₂ for passivated contact performance. AIP Conference Proceedings, 2019, , .	0.4	2

#	ARTICLE	IF	CITATIONS
37	Plasma immersion ion implantation for interdigitated back passivated contact (IBPC) solar cells. , 2016, , .		1
38	Electronic Defects and Device Performance in CuGaSe ₂ Solar Cells. Materials Research Society Symposia Proceedings, 2007, 1012, 1.	0.1	0
39	Effective Dielectric Passivation Scheme in Area-Selective Front/Back Poly-Si/SiO _x Passivating Contact Solar Cells. , 2021, , .		0