Antonio Luque

List of Publications by Year
in descending order

319 papers	12,044 citations	38660 50 h-index	32761 100 g-index
330 all docs	330 docs citations	330 times ranked	5751 citing authors

#	Article	IF	Citations
1	Increasing the Efficiency of Ideal Solar Cells by Photon Induced Transitions at Intermediate Levels. Physical Review Letters, 1997, 78, 5014-5017.	2.9	2,207
2	Understanding intermediate-band solar cells. Nature Photonics, 2012, 6, 146-152.	15.6	576
3	Production of Photocurrent due to Intermediate-to-Conduction-Band Transitions: A Demonstration of a Key Operating Principle of the Intermediate-Band Solar Cell. Physical Review Letters, 2006, 97, 247701.	2.9	498
4	The Intermediate Band Solar Cell: Progress Toward the Realization of an Attractive Concept. Advanced Materials, 2010, 22, 160-174.	11.1	297
5	Intermediate bands versus levels in non-radiative recombination. Physica B: Condensed Matter, 2006, 382, 320-327.	1.3	278
6	A metallic intermediate band high efficiency solar cell. Progress in Photovoltaics: Research and Applications, 2001, 9, 73-86.	4.4	256
7	Solar Cells Based on Quantum Dots: Multiple Exciton Generation and Intermediate Bands. MRS Bulletin, 2007, 32, 236-241.	1.7	215
8	Emitter degradation in quantum dot intermediate band solar cells. Applied Physics Letters, 2007, 90, 233510.	1.5	210
9	Partial filling of a quantum dot intermediate band for solar cells. IEEE Transactions on Electron Devices, 2001, 48, 2394-2399.	1.6	201
10	General equivalent circuit for intermediate band devices: Potentials, currents and electroluminescence. Journal of Applied Physics, 2004, 96, 903-909.	1.1	199
11	Experimental analysis of the quasi-Fermi level split in quantum dot intermediate-band solar cells. Applied Physics Letters, 2005, 87, 083505.	1.5	189
12	Will we exceed 50% efficiency in photovoltaics?. Journal of Applied Physics, 2011, 110, .	1.1	184
13	Novel semiconductor solar cell structures: The quantum dot intermediate band solar cell. Thin Solid Films, 2006, 511-512, 638-644.	0.8	170
14	Reducing carrier escape in the InAs/GaAs quantum dot intermediate band solar cell. Journal of Applied Physics, 2010, 108, .	1.1	156
15	Quasi-drift diffusion model for the quantum dot intermediate band solar cell. IEEE Transactions on Electron Devices, 2002, 49, 1632-1639.	1.6	153
16	50 Per cent more output power from an albedo-collecting flat panel using bifacial solar cells. Solar Energy, 1982, 29, 419-420.	2.9	152
17	Operation of the intermediate band solar cell under nonideal space charge region conditions and half filling of the intermediate band. Journal of Applied Physics, 2006, 99, 094503.	1.1	138
18	High efficiency and high concentration in photovoltaics. IEEE Transactions on Electron Devices, 1999, 46, 2139-2144.	1.6	126

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19	Lifetime recovery in ultrahighly titanium-doped silicon for the implementation of an intermediate band material. Applied Physics Letters, 2009, 94, .	1.5	119
20	Influence of the Overlap Between the Absorption Coefficients on the Efficiency of the Intermediate Band Solar Cell. IEEE Transactions on Electron Devices, 2004, 51, 1002-1007.	1.6	113
21	Elements of the design and analysis of quantum-dot intermediate band solar cells. Thin Solid Films, 2008, 516, 6716-6722.	0.8	106
22	Ultra high temperature latent heat energy storage and thermophotovoltaic energy conversion. Energy, 2016, 107, 542-549.	4.5	103
23	Electric and thermal model for non-uniformly illuminated concentration cells. Solar Energy Materials and Solar Cells, 1998, 51, 269-290.	3.0	100
24	Evaluation of the efficiency potential of intermediate band solar cells based on thin-film chalcopyrite materials. Journal of Applied Physics, 2008, 103, .	1.1	96
25	Photovoltaic concentration at the onset of its commercial deployment. Progress in Photovoltaics: Research and Applications, 2006, 14, 413-428.	4.4	92
26	Operating limits of Al-alloyed high-low junctions for BSF solar cells. Solid-State Electronics, 1981, 24, 415-420.	0.8	87
27	Review of Experimental Results Related to the Operation of Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 736-748.	1.5	85
28	Thermodynamic consistency of sub-bandgap absorbing solar cell proposals. IEEE Transactions on Electron Devices, 2001, 48, 2118-2124.	1.6	83
29	Present status of intermediate band solar cell research. Thin Solid Films, 2004, 451-452, 593-599.	0.8	77
30	Voltage recovery in intermediate band solar cells. Solar Energy Materials and Solar Cells, 2012, 98, 240-244.	3.0	77
31	High efficiency bifacial back surface field solar cells. Solar Cells, 1981, 3, 337-340.	0.6	75
32	Plasmonic light enhancement in the near-field of metallic nanospheroids for application in intermediate band solar cells. Applied Physics Letters, 2009, 95, .	1.5	73
33	On the Partial Filling of the Intermediate Band in IB Solar Cells. IEEE Transactions on Electron Devices, 2010, 57, 1201-1207.	1.6	73
34	Design constraints of the quantum-dot intermediate band solar cell. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 150-157.	1.3	70
35	Acceptable contamination levels in solar grade silicon: From feedstock to solar cell. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 159-160, 299-304.	1.7	70
36	Towards the intermediate band. Nature Photonics, 2011, 5, 137-138.	15.6	69

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37	Quantum dot intermediate band solar cell. , 0, , .		68
38	Ideal efficiency of monolithic, series-connected multijunction solar cells. Progress in Photovoltaics: Research and Applications, 2002, 10, 323-329.	4.4	67
39	Intermediate Band Solar Cell with Extreme Broadband Spectrum Quantum Efficiency. Physical Review Letters, 2015, 114, 157701.	2.9	62
40	Solar thermophotovoltaics: brief review and a new look. Solar Energy Materials and Solar Cells, 1994, 33, 11-22.	3.0	59
41	III-V compound semiconductor screening for implementing quantum dot intermediate band solar cells. Journal of Applied Physics, 2011, 109, 014313.	1.1	58
42	Double-sided n+-p-n+ solar cell for bifacial concentration. Solar Cells, 1980, 2, 151-166.	0.6	56
43	Impact-ionization-assisted intermediate band solar cell. IEEE Transactions on Electron Devices, 2003, 50, 447-454.	1.6	56
44	Upper limits to absorption enhancement in thick solar cells using diffraction gratings. Progress in Photovoltaics: Research and Applications, 2011, 19, 676-687.	4.4	56
45	Electronâ€“phonon energy transfer in hot-carrier solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 287-296.	3.0	55
46	Enhancement of up-conversion efficiency by combining rare earth-doped phosphors with PbS quantum dots. Solar Energy Materials and Solar Cells, 2010, 94, 1923-1926.	3.0	55
47	Self-organized colloidal quantum dots and metal nanoparticles for plasmon-enhanced intermediate-band solar cells. Nanotechnology, 2013, 24, 345402.	1.3	54
48	Light concentration in the near-field of dielectric spheroidal particles with mesoscopic sizes. Optics Express, 2011, 19, 16207.	1.7	53
49	Nanoimprinted diffraction gratings for crystalline silicon solar cells: implementation, characterization and simulation. Optics Express, 2013, 21, A295.	1.7	53
50	Limiting efficiency of coupled thermal and photovoltaic converters. Solar Energy Materials and Solar Cells, 1999, 58, 147-165.	3.0	52
51	A numerical study of Bi-periodic binary diffraction gratings for solar cell applications. Solar Energy Materials and Solar Cells, 2011, 95, 3527-3535.	3.0	51
52	Wide-Bandgap InAs/InGaP Quantum-Dot Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 840-845.	1.5	51
53	Diffusing reflectors for bifacial photovoltaic panels. Solar Cells, 1985, 13, 277-292.	0.6	50
54	Some Results of the EUCLIDES Photovoltaic Concentrator Prototype. Progress in Photovoltaics: Research and Applications, 1997, 5, 195-212.	4.4	50

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55	Intermediate band mobility in heavily titanium-doped silicon layers. Solar Energy Materials and Solar Cells, 2009, 93, 1668-1673.	3.0	49
56	Entropy production in photovoltaic conversion. Physical Review B, 1997, 55, 6994-6999.	1.1	48
57	Light intensity enhancement by diffracting structures in solar cells. Journal of Applied Physics, 2008, 104, 034502.	1.1	47
58	Three-terminal heterojunction bipolar transistor solar cell for high-efficiency photovoltaic conversion. Nature Communications, 2015, 6, 6902.	5.8	47
59	Carrier recombination effects in strain compensated quantum dot stacks embedded in solar cells. Applied Physics Letters, 2008, 93, 123114.	1.5	46
60	Intraband absorption for normal illumination in quantum dot intermediate band solar cells. Solar Energy Materials and Solar Cells, 2010, 94, 2032-2035.	3.0	46
61	Multiple levels in intermediate band solar cells. Applied Physics Letters, 2010, 96, .	1.5	46
62	Reconfigurable Distributed Network Control System for Industrial Plant Automation. IEEE Transactions on Industrial Electronics, 2004, 51, 1168-1180.	5.2	45
63	New Hamiltonian for a better understanding of the quantum dot intermediate band solar cells. Solar Energy Materials and Solar Cells, 2011, 95, 2095-2101.	3.0	45
64	Type II broken band heterostructure quantum dot to obtain a material for the intermediate band solar cell. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 162-165.	1.3	43
65	Experimental Analysis of the Operation of Quantum Dot Intermediate Band Solar Cells. Journal of Solar Energy Engineering, Transactions of the ASME, 2007, 129, 319-322.	1.1	42
66	The feasibility of high-efficiency InAs/GaAs quantum dot intermediate band solar cells. Solar Energy Materials and Solar Cells, 2014, 130, 225-233.	3.0	42
67	Understanding the operation of quantum dot intermediate band solar cells. Journal of Applied Physics, 2012, 111, 044502.	1.1	41
68	Fresnel lens analysis for solar energy applications. Applied Optics, 1981, 20, 2941.	2.1	40
69	FULLSPECTRUM: a new PV wave making more efficient use of the solar spectrum. Solar Energy Materials and Solar Cells, 2005, 87, 467-479.	3.0	40
70	Two-layer Hall effect model for intermediate band Ti-implanted silicon. Journal of Applied Physics, 2011, 109, .	1.1	40
71	Chemical Vapor Deposition Model of Polysilicon in a Trichlorosilane and Hydrogen System. Journal of the Electrochemical Society, 2008, 155, D485.	1.3	39
72	Potential of Mn doped In1â^'xGaxN for implementing intermediate band solar cells. Solar Energy Materials and Solar Cells, 2009, 93, 641-644.	3.0	39

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73	Random pyramidal texture modelling. Solar Energy Materials and Solar Cells, 1997, 45, 241-253.	3.0	38
74	Application of the photoreflectance technique to the characterization of quantum dot intermediate band materials for solar cells. Thin Solid Films, 2008, 516, 6943-6947.	0.8	38
75	Photovoltaic market and costs forecast based on a demand elasticity model. Progress in Photovoltaics: Research and Applications, 2001, 9, 303-312.	4.4	37
76	Low temperature characterization of the photocurrent produced by two-photon transitions in a quantum dot intermediate band solar cell. Thin Solid Films, 2008, 516, 6919-6923.	0.8	36
77	Near-field scattering by dielectric spheroidal particles with sizes on the order of the illuminating wavelength. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1221.	0.9	36
78	Increasing the quantum efficiency of InAs/GaAs QD arrays for solar cells grown by MOVPE without using strainâ€balance technology. Progress in Photovoltaics: Research and Applications, 2016, 24, 1261-1271.	4.4	36
79	A Comprehensive Model for the Gettering of Lifetime-Killing Impurities in Silicon. Journal of the Electrochemical Society, 2000, 147, 2685.	1.3	32
80	Analysis of the intermediate-band absorption properties of type-II GaSb/GaAs quantum-dot photovoltaics. Physical Review B, 2017, 96, .	1.1	32
81	Light absorption in the near field around surface plasmon polaritons. Journal of Applied Physics, 2008, 104, .	1.1	31
82	Some advantages of intermediate band solar cells based on type II quantum dots. Applied Physics Letters, 2013, 103, .	1.5	30
83	Advances in quantum dot intermediate band solar cells. , 2010, , .		29
84	Radiative thermal escape in intermediate band solar cells. AIP Advances, 2011, 1, .	0.6	29
85	The influence of quantum dot size on the sub-bandgap intraband photocurrent in intermediate band solar cells. Applied Physics Letters, 2012, 101, 133909.	1.5	29
86	Temperature homogeneity of polysilicon rods in a Siemens reactor. Journal of Crystal Growth, 2007, 299, 165-170.	0.7	28
87	On inhibiting Auger intraband relaxation in InAs/GaAs quantum dot intermediate band solar cells. Applied Physics Letters, 2011, 99, .	1.5	28
88	Ideal efficiency and potential of solar thermophotonic converters under optically and thermally concentrated power flux. IEEE Transactions on Electron Devices, 2002, 49, 2024-2030.	1.6	27
89	Thermodynamics of solar energy conversion in novel structures. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 14, 107-114.	1.3	27
90	Thin-film intermediate band chalcopyrite solar cells. Thin Solid Films, 2009, 517, 2452-2454.	0.8	27

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91	Analyses of the intermediate energy levels in ZnTe:O alloys. Applied Physics Letters, 2010, 96, .	1.5	27
92	Radiative energy loss in a polysilicon CVD reactor. Solar Energy Materials and Solar Cells, 2011, 95, 1042-1049.	3.0	27
93	Theoretical bases of photovoltaic concentrators for extended light sources. Solar Cells, 1981, 3, 355-368.	0.6	26
94	Symmetry considerations in the empirical k.p Hamiltonian for the study of intermediate band solar cells. Solar Energy Materials and Solar Cells, 2012, 103, 171-183.	3.0	26
95	InAs/AlGaAs quantum dot intermediate band solar cells with enlarged sub-bandgaps. , 2012, , .		25
96	Demonstration of the operation principles of intermediate band solar cells at room temperature. Solar Energy Materials and Solar Cells, 2016, 149, 15-18.	3.0	25
97	Photoreflectance analysis of a GaInP/GaInAs/Ge multijunction solar cell. Applied Physics Letters, 2010, 97, .	1.5	24
98	Understanding experimental characterization of intermediate band solar cells. Journal of Materials Chemistry, 2012, 22, 22832.	6.7	24
99	The Quantum Dot Intermediate Band Solar Cell. Springer Series in Optical Sciences, 2012, , 251-275.	0.5	24
100	Interband absorption of photons by extended states in intermediate band solar cells. Solar Energy Materials and Solar Cells, 2013, 115, 138-144.	3.0	24
101	Numerical modeling of intermediate band solar cells. Semiconductor Science and Technology, 2011, 26, 014031.	1.0	23
102	Radiation heat savings in polysilicon production: Validation of results through a CVD laboratory prototype. Journal of Crystal Growth, 2013, 374, 5-10.	0.7	23
103	Thinâ€film intermediate band photovoltaics: advanced concepts for chalcopyrite solar cells. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1021-1025.	0.8	22
104	Extreme voltage recovery in GaAs:Ti intermediate band solar cells. Solar Energy Materials and Solar Cells, 2013, 108, 175-179.	3.0	22
105	The Segmental Approximation in Multijunction Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 1229-1236.	1.5	22
106	High injection phenomena in p+in+ silicon solar cells. Solid-State Electronics, 1982, 25, 797-809.	0.8	21
107	Colored solar cells with minimal current mismatch. IEEE Transactions on Electron Devices, 1999, 46, 1858-1865.	1.6	21
108	Status, Trends, Challenges and the Bright Future of Solar Electricity from Photovoltaics. , 2005, , 1-43.		21

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109	Intermediate Band Solar Cells (IBSC) Using Nanotechnology. , 2006, , 539-566.		21
110	Realistic Detailed Balance Study of the Quantum Efficiency of Quantum Dot Solar Cells. Advanced Functional Materials, 2014, 24, 339-345.	7.8	21
111	Three-Bandgap Absolute Quantum Efficiency in GaSb/GaAs Quantum Dot Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2017, 7, 508-512.	1.5	21
112	Zn Diffusion in GaAs under Constant As Pressure. Journal of the Electrochemical Society, 1976, 123, 249-254.	1.3	20
113	Light-confining cavities for photovoltaic applications based on the angular-spatial limitation of the escaping beam. Applied Optics, 1992, 31, 3114.	2.1	20
114	Six not-so-easy pieces in intermediate band solar cell research. Journal of Photonics for Energy, 2013, 3, 031299.	0.8	20
115	AlGaAs/GaAs photovoltaic converters for high power narrowband radiation. AIP Conference Proceedings, 2014, , .	0.3	20
116	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow><mml:mstyle		

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127	Comparison of Fresnel lenses and parabolic mirrors as solar energy concentrators. Applied Optics, 1982, 21, 1851.	2.1	16
128	Adaptation of monocrystalline solar cell process to multicrystalline materials. Solar Energy Materials and Solar Cells, 2005, 87, 411-421.	3.0	16
129	Influence of P gettering thermal step on light-induced degradation in Cz Si. Solar Energy Materials and Solar Cells, 2005, 88, 247-256.	3.0	16
130	Quantum dot intermediate band solar cell material systems with negligible valence band offsets. , 0, , .		16
131	Characterization of up-converter layers on bifacial silicon solar cells. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2009, 159-160, 212-215.	1.7	16
132	Application of photoreflectance to advanced multilayer structures for photovoltaics. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 599-608.	1.7	16
133	Sub-Bandgap External Quantum Efficiency in Ti Implanted Si Heterojunction with Intrinsic Thin Layer Cells. Japanese Journal of Applied Physics, 2013, 52, 122302.	0.8	16
134	Evaluation of the PV Cell Operation Temperature in the Process of Fast Switching to Open-Circuit Mode. IEEE Journal of Photovoltaics, 2015, 5, 1715-1721.	1.5	16
135	Double Sided (D. S.) Solar Cells to Improve Static Concentration. , 1978, , 269-277.		16
136	Comment on â€˜â€˜35% efficient nonconcentrating novel silicon solar cellâ€™â€™. Applied Physics Letters, 1993, 63, 848-848.	1.5	15
137	Photovoltaic Concentrators. , 2005, , 449-503.		15
138	Ultra-high efficiency solar cells: the path for mass penetration of solar electricity. Electronics Letters, 2008, 44, 943.	0.5	15
139	Practical high efficiency bifacial solar cells. , 0, , .		14
140	Optoelectronic evaluation of the nanostructuring approach to chalcopyrite-based intermediate band materials. Solar Energy Materials and Solar Cells, 2010, 94, 1912-1918.	3.0	14
141	Virtual-bound, filamentary and layered states in a box-shaped quantum dot of square potential form the exact numerical solution of the effective mass SchrÃ¶dinger equation. Physica B: Condensed Matter, 2013, 413, 73-81.	1.3	14
142	Photon Absorption Models in Nanostructured Semiconductor Solar Cells and Devices. SpringerBriefs in Applied Sciences and Technology, 2015, , .	0.2	14
143	Room temperature photo-response of titanium supersaturated silicon at energies over the bandgap. Journal Physics D: Applied Physics, 2016, 49, 055103.	1.3	14
144	Static concentrators theory for non-homogeneous extended sources. Solar Cells, 1983, 8, 297-315.	0.6	13

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145	COST REDUCING POTENTIAL OF PHOTOVOLTAIC CONCENTRATION. International Journal of Solar Energy, 1995, 17, 179-198.	0.2	13
146	Theoretical Limits of Photovoltaic Conversion. , 2005, , 113-151.		13
147	Interband optical absorption in quantum well solarcells. Solar Energy Materials and Solar Cells, 2013, 112, 20-26.	3.0	13
148	Characterization of the Manufacturing Processes to Grow Triple-Junction Solar Cells. International Journal of Photoenergy, 2014, 2014, 1-10.	1.4	13
149	Quantum Dot Parameters Determination From Quantum-Efficiency Measurements. IEEE Journal of Photovoltaics, 2015, 5, 1074-1078.	1.5	13
150	Proposed dislocation theory of burst noise in planar transistors. Electronics Letters, 1970, 6, 176.	0.5	12
151	Quasi-optimum pseudo-Lambertian reflecting concentrators: an analysis. Applied Optics, 1980, 19, 2398.	2.1	12
152	The confinement of light in solar cells. Solar Energy Materials and Solar Cells, 1991, 23, 152-163.	0.4	12
153	Segregation Model for Si Gettering by Al. Physica Status Solidi A, 1996, 155, 43-49.	1.7	12
154	Solar Thermophotovoltaics: Combining Solar Thermal and Photovoltaics. AIP Conference Proceedings, 2007, , .	0.3	12
155	Implementation of a Monte Carlo method to model photon conversion for solar cells. Thin Solid Films, 2008, 516, 6757-6762.	0.8	12
156	Study of Internal versus External Gettering of Iron during Slow Cooling Processes for Silicon Solar Cell Fabrication. Solid State Phenomena, 0, 156-158, 387-393.	0.3	12
157	Connection losses in photovoltaic arrays. Solar Energy, 1980, 25, 171-178.	2.9	11
158	Design of optimal and ideal 2-D concentrators with the collector immersed in a dielectric tube. Applied Optics, 1983, 22, 3960.	2.1	11
159	Optimisation of SiNx:H anti-reflection coatings for silicon solar cells. , 2007, , .		11
160	Realistic performance prediction in nanostructured solar cells as a function of nanostructure dimensionality and density. Journal of Applied Physics, 2012, 112, 124518.	1.1	11
161	Electrochemical Potentials (Quasi-Fermi Levels) and the Operation of Hot-Carrier, Impact-Ionization, and Intermediate-Band Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 1298-1304.	1.5	11
162	Internal quantum efficiency of back illuminated n+ pp + solar cells. Revue De Physique AppliquÃ©e, 1978, 13, 629-632.	0.4	11

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163	Limit of concentration for cylindrical concentrators under extended light sources. Applied Optics, 1983, 22, 2437.	2.1	10
164	Optical aspects in photovoltaic energy conversion. Solar Cells, 1991, 31, 237-258.	0.6	10
165	The EUCLIDES prototype: An efficient parabolic trough for PV concentration. , 1996, , .		10
166	Analysis of a technology for CZ bifacial solar cells. IEEE Transactions on Electron Devices, 2001, 48, 2337-2341.	1.6	10
167	Measurement of bulk and rear recombination components and application to solar cells with an Al back layer. Solid-State Electronics, 2005, 49, 49-55.	0.8	10
168	Solar Grade Silicon Feedstock. , 2005, , 153-204.		10
169	Low-Temperature Concentrated Light Characterization Applied to Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 753-761.	1.5	10
170	A numerical study into the influence of quantum dot size on the sub-bandgap interband photocurrent in intermediate band solar cells. AIP Advances, 2013, 3, 022116.	0.6	10
171	Analysis of static and quasi-static cross compound parabolic concentrators. Applied Optics, 1984, 23, 2007.	2.1	9
172	Experimental extraction of light confinement parameters for textured silicon wafers. Progress in Photovoltaics: Research and Applications, 1995, 3, 177-187.	4.4	9
173	Performance of front contact silicon solar cells under concentration. Progress in Photovoltaics: Research and Applications, 2004, 12, 517-528.	4.4	9
174	Six not so easy pieces in intermediate band solar cell research. , 2013, , .		9
175	Two-photon photocurrent and voltage up-conversion in a quantum dot intermediate band solar cell. , 2014, , .		9
176	Experimental demonstration of the effect of field damping layers in quantum-dot intermediate band solar cells. Solar Energy Materials and Solar Cells, 2015, 140, 299-305.	3.0	9
177	The effect of band offsets in quantum dots. Solar Energy Materials and Solar Cells, 2016, 145, 180-184.	3.0	9
178	Effect of thickness on bifacial silicon solar cells. , 2007, , .		8
179	Enhanced iron gettering by short, optimized low-temperature annealing after phosphorus emitter diffusion for industrial silicon solar cell processing. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 759-762.	0.8	8
180	Exploring polysilicon deposition conditions through a laboratory CVD prototype. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 2164-2168.	0.8	8

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181	Intermediate Band to Conduction Band Optical Absorption in ZnTeO. IEEE Journal of Photovoltaics, 2014, 4, 1091-1094.	1.5	8
182	Comparing the Luttingerâ€“Kohnâ€“Pikusâ€“Bir and the Empiric KÂ·P Hamiltonians in quantum dot intermediate band solar cells manufactured in zincblende semiconductors. Solar Energy Materials and Solar Cells, 2015, 141, 39-48.	3.0	8
183	Optically Triggered Infrared Photodetector. Nano Letters, 2015, 15, 224-228.	4.5	8
184	On the Potential of Silicon Intermediate Band Solar Cells. Energies, 2020, 13, 3044.	1.6	8
185	Experimental verification of the illumination profile influence on the series resistance of concentrator solar cells. Journal of Applied Physics, 1981, 52, 535-536.	1.1	7
186	Conditions for achieving ideal and Lambertian symmetrical solar concentrators. Applied Optics, 1982, 21, 3736.	2.1	7
187	Cz bifacial solar cells. IEEE Electron Device Letters, 2000, 21, 179-180.	2.2	7
188	Hot carrier solar cells: Challenges and recent progress. , 2010, , .		7
189	The effect of concentration on the performance of quantum dot intermediate-band solar cells. , 2012, , .		7
190	New-generation concentrator modules based on cascade solar cells: Design and optical and thermal properties. Technical Physics, 2014, 59, 1650-1657.	0.2	7
191	Optimisation of p+ doping level of n+-p-p+ bifacial b.s.f. solar cells by ion implantation. Electronics Letters, 1980, 16, 633.	0.5	6
192	Finite Lambertian source analysis of concentrators: application to solar reflectors. Applied Optics, 1981, 20, 4193.	2.1	6
193	Analysis of a photovoltaic static concentrator prototype. Solar & Wind Technology, 1987, 4, 145-149.	0.2	6
194	Two-dimensional modeling of front contact silicon solar cells. Progress in Photovoltaics: Research and Applications, 2004, 12, 503-516.	4.4	6
195	Light management issues in intermediate band solar cells. Materials Research Society Symposia Proceedings, 2008, 1101, 1.	0.1	6
196	Ionization energy levels in Mn-doped InxGa1â^'xN alloys. Journal of Applied Physics, 2009, 105, 033704.	1.1	6
197	Application of photoluminescence and electroluminescence techniques to the characterization of intermediate band solar cells. Energy Procedia, 2011, 10, 117-121.	1.8	6
198	The lead salt quantum dot intermediate band solar cell. , 2011, , .		6

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199	Bifacial Solar Cells. The Materials Processingory and Practices, 1987, 6, 353-409.	0.1	6
200	Approximated analytical model for dark and J_{sc}â€”V_{oc}characteristics of p⁺-i-n⁺solar cells. IEEE Transactions on Electron Devices, 1983, 30, 1727-1735.	1.6	5
201	Analysis of high efficiency back point contact silicon solar cells. Solid-State Electronics, 1988, 31, 65-79.	0.8	5
202	Perimeter recombination in planar solar cells. Journal of Applied Physics, 1993, 73, 4042-4047.	1.1	5
203	Dynamic modelling of the diffusion-segregation gettering. Application to the gettering by Al in Si. Physica Status Solidi A, 1996, 157, 37-48.	1.7	5
204	The European Photovoltaic Technology Platform. , 2006, , .		5
205	IBPOWER: Intermediate band materials and solar cells for photovoltaics with high efficiency and reduced cost. , 2009, , .		5
206	High intensity low temperature (HILT) performance of space concentrator GaInP/GaInAs/Ge MJ SCs. , 2014, , .		5
207	Microfluidic capacitive tilt sensor using PCB-MEMS. , 2015, , .		5
208	Heterojunction Band Offset Limitations on Open-Circuit Voltage in <roman>p</roman>-Z<roman>n</roman>T <roman>e/n</roman>-Z<roman>n</roman>S<roman>e</roman> Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 874-877.	1.5	5
209	Empiric kÂ·p Hamiltonian calculation of the band-to-band photon absorption in semiconductors. Physica B: Condensed Matter, 2015, 456, 82-86.	1.3	5
210	Static concentrators: A venture to meet the low cost target in photovoltaics. Solar Cells, 1984, 12, 141-145.	0.6	4
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