Elisa Antolin

List of Publications by Year
in descending order

94 papers	3,508 citations	172207 29 h-index	143772 57 g-index
96 all docs	96 docs citations	96 times ranked	1914 citing authors

#	Article	IF	Citations
1	Progress in threeâ€terminal heterojunction bipolar transistor solar cells. Progress in Photovoltaics: Research and Applications, 2022, 30, 843-850.	4.4	6
2	High open-circuit voltage in transition metal dichalcogenide solar cells. Nano Energy, 2021, 79, 105427.	8.2	31
3	Reversible dehydrationâ€"hydration process in stable bismuth-based hybrid perovskites. Journal of Materials Chemistry C, 2021, 9, 11358-11367.	2.7	12
4	Contribution to the Study of Sub-Bandgap Photon Absorption in Quantum Dot InAs/AlGaAs Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2021, 11, 420-428.	1.5	11
5	Design study of a nanowire three-terminal heterojunction bipolar transistor solar cell. , 2021, , .		1
6	Compensated contacts for three-terminal transistor solar cells. , 2021, , .		1
7	Enabling high efficiencies in MoS2 homojunction solar cells. , 2021, , .		0
8	The Intermediate Band Solar Cell. , 2021, , .		0
9	Triplet Excitation and Electroluminescence from a Supramolecular Monolayer Embedded in a Boron Nitride Tunnel Barrier. Nano Letters, 2020, 20, 278-283.	4.5	9
10	Considerations for the Design of a Heterojunction Bipolar Transistor Solar Cell. IEEE Journal of Photovoltaics, 2020, 10, 2-7.	1.5	7
11	Fluorescence and Electroluminescence of J-Aggregated Polythiophene Monolayers on Hexagonal Boron Nitride. ACS Nano, 2020, 14, 13886-13893.	7.3	9
12	On the Potential of Silicon Intermediate Band Solar Cells. Energies, 2020, 13, 3044.	1.6	8
13	Photovoltaic Anodes for Enhanced Thermionic Energy Conversion. ACS Energy Letters, 2020, 5, 1364-1370.	8.8	35
14	Design of an indium arsenide cell for near-field thermophotovoltaic devices. Journal of Photonics for Energy, 2020, 10, 1.	0.8	16
15	High open-circuit voltage Mos2 homojunction - effect of Schottky barriers at the contacts. , 2020, , .		0
16	III-V-on-silicon triple-junction based on the heterojunction bipolar transistor solar cell concept. , 2020, , .		4
17	Inverted GaInP/GaAs Three-Terminal Heterojunction Bipolar Transistor Solar Cell. , 2020, , .		4
18	Novel heterojunction bipolar transistor architectures for the practical implementation of high-efficiency three-terminal solar cells. Solar Energy Materials and Solar Cells, 2019, 194, 54-61.	3.0	12

#	Article	IF	Citations
19	Citizens on the driving seat of Photovoltaics. , 2019, , .		0
20	Demonstrating the GaInP/GaAs Three-Terminal Heterojunction Bipolar Transistor Solar Cell. , 2019, , .		7
21	Potential of the three-terminal heterojunction bipolar transistor solar cell for space applications. , 2019, , .		2
22	AMADEUS: Next generation materials and solid state devices for ultra high temperature energy storage and conversion. AIP Conference Proceedings, 2018, , .	0.3	29
23	Module interconnection for the three-terminal heterojunction bipolar transistor solar cell. AIP Conference Proceedings, 2018, , .	0.3	11
24	Gate tunable photovoltaic effect in MoS₂ vertical pâ€“n homostructures. Journal of Materials Chemistry C, 2017, 5, 854-861.	2.7	50
25	A substrate removal processing method for IIIâ€“V solar cells compatible with low-temperature characterization. Materials Science in Semiconductor Processing, 2017, 63, 58-63.	1.9	1
26	Interpretation of photovoltaic performance of n -ZnO:Al/ZnS:Cr/p-GaP solar cell. Solar Energy Materials and Solar Cells, 2017, 169, 56-60.	3.0	7
27	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
28	Analysis of the intermediate-band absorption properties of type-II GaSb/GaAs quantum-dot photovoltaics. Physical Review B, 2017, 96, .	1.1	32
29	Notice of Removal Limiting efficiency of silicon intermediate band solar cells. , 2017, , .		0
30	Highly responsive UV-photodetectors based on single electrospun TiO₂ nanofibres. Journal of Materials Chemistry C, 2016, 4, 10707-10714.	2.7	41
31	Room temperature photo-response of titanium supersaturated silicon at energies over the bandgap. Journal Physics D: Applied Physics, 2016, 49, 055103.	1.3	14
32	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
33	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
34	Optically Triggered Infrared Photodetector. Nano Letters, 2015, 15, 224-228.	4.5	8
35	Wide-Bandgap InAs/InGaP Quantum-Dot Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 840-845.	1.5	51
36	Intermediate Band Solar Cell with Extreme Broadband Spectrum Quantum Efficiency. Physical Review Letters, 2015, 114, 157701.	2.9	62

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37	Quantum Dot Parameters Determination From Quantum-Efficiency Measurements. IEEE Journal of Photovoltaics, 2015, 5, 1074-1078.	1.5	13
38	Voltage limitation analysis in strain-balanced InAs/GaAsN quantum dot solar cells applied to the intermediate band concept. Solar Energy Materials and Solar Cells, 2015, 132, 178-182.	3.0	19
39	Intermediate Band to Conduction Band Optical Absorption in ZnTeO. IEEE Journal of Photovoltaics, 2014, 4, 1091-1094.	1.5	8
40	Two-photon photocurrent and voltage up-conversion in a quantum dot intermediate band solar cell. , 2014, , .		9
41	Review of Experimental Results Related to the Operation of Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 736-748.	1.5	85
42	Absorption coefficient for the intraband transitions in quantum dot materials. Progress in Photovoltaics: Research and Applications, 2013, 21, 658-667.	4.4	19
43	Self-organized colloidal quantum dots and metal nanoparticles for plasmon-enhanced intermediate-band solar cells. Nanotechnology, 2013, 24, 345402.	1.3	54
44	Low-Temperature Concentrated Light Characterization Applied to Intermediate Band Solar Cells. IEEE Journal of Photovoltaics, 2013, 3, 753-761.	1.5	10
45	Interband optical absorption in quantum well solarcells. Solar Energy Materials and Solar Cells, 2013, 112, 20-26.	3.0	13
46	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
47	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
48	Extreme voltage recovery in GaAs:Ti intermediate band solar cells. Solar Energy Materials and Solar Cells, 2013, 108, 175-179.	3.0	22
49	Intermediate band solar energy conversion in ZnTeO. , 2013, , .		2
50	Six not so easy pieces in intermediate band solar cell research. , 2013, , .		9
51	Six not-so-easy pieces in intermediate band solar cell research. Journal of Photonics for Energy, 2013, 3, 031299.	0.8	20
52	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
53	A puzzling solar cell structure: An exercise to get insight on intermediate band solar cells. , 2013, , .		2
54	Intermediate band to conduction band optical absorption in ZnTe:O. , 2013, , .		0

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55	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
56	Understanding experimental characterization of intermediate band solar cells. Journal of Materials Chemistry, 2012, 22, 22832.	6.7	24
57	Intermediate Band Solar Cells. , 2012, , 619-639.		0
58	InAs/AlGaAs quantum dot intermediate band solar cells with enlarged sub-bandgaps. , 2012, , .		25
59	Intermediate band to conduction band optical absorption in ZnTe:O. , 2012, , .		0
60	Understanding the operation of quantum dot intermediate band solar cells. Journal of Applied Physics, 2012, 111, 044502.	1.1	41
61	The Quantum Dot Intermediate Band Solar Cell. Springer Series in Optical Sciences, 2012, , 251-275.	0.5	24
62	Voltage recovery in intermediate band solar cells. Solar Energy Materials and Solar Cells, 2012, 98, 240-244.	3.0	77
63	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
64	On inhibiting Auger intraband relaxation in InAs/GaAs quantum dot intermediate band solar cells. Applied Physics Letters, 2011, 99, .	1.5	28
65	III-V compound semiconductor screening for implementing quantum dot intermediate band solar cells. Journal of Applied Physics, 2011, 109, 014313.	1.1	58
66	Modelling of quantum dot solar cells for concentrator PV applications. , 2011, , .		1
67	Application of photoluminescence and electroluminescence techniques to the characterization of intermediate band solar cells. Energy Procedia, 2011, 10, 117-121.	1.8	6
68	Radiative thermal escape in intermediate band solar cells. AIP Advances, 2011, 1, .	0.6	29
69	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
70	Two-layer Hall effect model for intermediate band Ti-implanted silicon. Journal of Applied Physics, 2011, 109, .	1.1	40
71	The lead salt quantum dot intermediate band solar cell. , 2011, , .		6
72	Optical properties of quantum dot intermediate band solar cells. , 2011, , .		2

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73	Hot carrier solar cells: Challenges and recent progress. , 2010, , .		7
74	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
75	<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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91	Novel semiconductor solar cell structures: The quantum dot intermediate band solar cell. Thin Solid Films, 2006, 511-512, 638-644.	0.8	170
92	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
93	Experimental analysis of the quasi-Fermi level split in quantum dot intermediate-band solar cells. Applied Physics Letters, 2005, 87, 083505.	1.5	189
94	Intermediate Band Solar Cells. Advances in Chemical and Materials Engineering Book Series, 0, , 188-213.	0.2	1