

Pablo R Ortega

List of Publications by Year in descending order

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94
papers

1,939
citations

394421

19
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265206

42
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95
all docs

95
docs citations

95
times ranked

2149
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic layer deposition of vanadium oxide films for crystalline silicon solar cells. <i>Materials Advances</i> , 2022, 3, 337-345.	5.4	20
2	Interdigitated back-contacted crystalline silicon solar cells fully manufactured with atomic layer deposited selective contacts. <i>Solar Energy Materials and Solar Cells</i> , 2022, 240, 111731.	6.2	8
3	Thin c-Si Solar Cells Based on VO _x Heterojunctions With Texturized Rear Surface. <i>IEEE Journal of Photovoltaics</i> , 2021, 11, 1358-1362.	2.5	2
4	An Accurate Physical Model for PV Modules With Improved Approximations of Series-Shunt Resistances. <i>IEEE Journal of Photovoltaics</i> , 2021, 11, 699-707.	2.5	7
5	Hole Transport Layer based on atomic layer deposited V ₂ O ₅ films: Paving the road to semi-transparent CZTSe solar cells. <i>Solar Energy</i> , 2021, 226, 64-71.	6.1	3
6	Deposition and characterisation of sputtered molybdenum oxide thin films with hydrogen atmosphere. <i>Applied Surface Science</i> , 2021, 563, 150285.	6.1	14
7	Influence of wavelength and pulse duration on the selective laser ablation of WO _x , VO _x and MoO _x thin films.. <i>Surfaces and Interfaces</i> , 2021, , 101613.	3.0	3
8	Black silicon back-contact module with wide light acceptance angle. <i>Progress in Photovoltaics: Research and Applications</i> , 2020, 28, 210-216.	8.1	8
9	Low-Cost High-Sensitive Suns ^β Measurement Instrument to Characterize c-Si Solar Cells. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 6429-6435.	4.7	6
10	Improved Electron Selectivity in Silicon Solar Cells by Cathode Modification with a Dipolar Conjugated Polyelectrolyte Interlayer. <i>ACS Applied Energy Materials</i> , 2019, 2, 5954-5959.	5.1	8
11	Multicrystalline Silicon Thin-Film Solar Cells Based on Vanadium Oxide Heterojunction and Laser-Doped Contacts. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1900393.	1.8	5
12	Origin of the Negative Differential Resistance in the output characteristics of a picene-based Thin-Film Transistor. , 2019, , .		1
13	Influence of a Gold Seed in Transparent V ₂ O ₅ /Ag/V ₂ O ₅ Selective Contacts for Dopant-Free Silicon Solar Cells. <i>IEEE Journal of Photovoltaics</i> , 2019, 9, 72-77.	2.5	6
14	Interdigitated back-contacted crystalline silicon solar cells with low-temperature dopant-free selective contacts. <i>Journal of Materials Chemistry A</i> , 2018, 6, 3977-3985.	10.3	48
15	3D simulations of interdigitated back-contacted crystalline silicon solar cells on thin substrates. <i>Solar Energy</i> , 2018, 167, 242-250.	6.1	8
16	Photovoltaic and fuel cells in power microelectromechanical systems for smart energy management. , 2018, , 461-498.		1
17	Enabling silicon-on-silicon photonics with pedestalled Mie resonators. <i>Nanoscale</i> , 2018, 10, 14406-14413.	5.6	10
18	V ₂ O ₅ -based hole-selective contacts for c-Si interdigitated back-contacted solar cells. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9182-9189.	10.3	94

#	ARTICLE	IF	CITATIONS
19	Recombination processes in passivated boron-implanted black silicon emitters. Journal of Applied Physics, 2017, 121, .	2.5	20
20	Cost-effective cleaning solutions based on H ₂ O/NH ₃ /H ₂ O ₂ mixtures for ALD Al ₂ O ₃ /passivated IBC c-Si solar cells. , 2017, , .		0
21	Fully low temperature interdigitated back-contacted c-Si(n) solar cells based on laser-doping from dielectric stacks. Solar Energy Materials and Solar Cells, 2017, 169, 107-112.	6.2	12
22	Interdigitated back contacted c-Si(p) solar cells with photovoltaic efficiencies beyond 22%. , 2017, , .		2
23	Silicon nitride layers for DopLa-IBC solar cells. , 2017, , .		0
24	Silicon solar cells with heterojunction emitters and laser processed base contacts. Energy Procedia, 2017, 124, 604-611.	1.8	4
25	Passivating/hole-selective contacts based on V ₂ O ₅ /SiO _x stacks deposited at ambient temperature. Energy Procedia, 2017, 124, 584-592.	1.8	33
26	³Cat-1 project: a multi-payload CubeSat for scientific experiments and technology demonstrators. European Journal of Remote Sensing, 2017, 50, 125-136.	3.5	7
27	Metallized Boron-Doped Black Silicon Emitters For Front Contact Solar Cells. , 2017, , .		0
28	â€œColdâ€•Process for IBC c-Si Solar Cells Fabrication. Energy Procedia, 2016, 92, 652-660.	1.8	6
29	Back Junction n-type Silicon Heterojunction Solar Cells with V ₂ O ₅ Hole-selective Contact. Energy Procedia, 2016, 92, 633-637.	1.8	25
30	Long-term Stability of Al ₂ O ₃ Passivated Black Silicon. Energy Procedia, 2016, 92, 341-346.	1.8	15
31	DopLa Solar Cells with Texturized Front Surface. Energy Procedia, 2016, 92, 949-955.	1.8	3
32	IBC c-Si(n) Solar Cells Based on Laser Doping Processing for Selective Emitter and Base Contact Formation. Energy Procedia, 2016, 92, 956-961.	1.8	9
33	Light harvesting by a spherical silicon microcavity. Journal of Applied Physics, 2016, 119, .	2.5	14
34	Microscale Characterization of Surface Recombination at the Vicinity of Laser-Processed Regions in c-Si Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 426-431.	2.5	6
35	From random to order: Colloidal crystals on non-flat surfaces. Microelectronic Engineering, 2016, 153, 20-23.	2.4	0
36	Transition metal oxides as hole-selective contacts in silicon heterojunctions solar cells. Solar Energy Materials and Solar Cells, 2016, 145, 109-115.	6.2	328

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37	Base contacts and selective emitters processed by laser doping technique for p-type IBC c-Si solar cells. Energy Procedia, 2015, 77, 752-758.	1.8	6
38	High efficiency black silicon interdigitated back contacted solar cells on p-type and n-type c-Si substrates. Progress in Photovoltaics: Research and Applications, 2015, 23, 1448-1457.	8.1	35
39	High efficiency interdigitated back-contact c-Si(p) solar cells. , 2015, , .		3
40	Study of the Surface Recombination Velocity for Ultraviolet and Visible Laser-Fired Contacts Applied to Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 1006-1013.	2.5	4
41	Analysis of the Atomic Layer Deposited Al ₂ O ₃ field-effect passivation in black silicon. Solar Energy Materials and Solar Cells, 2015, 142, 29-33.	6.2	61
42	Experimental determination of base resistance contribution for point-like contacted c-Si solar cells using impedance spectroscopy analysis. Solar Energy Materials and Solar Cells, 2015, 141, 350-355.	6.2	3
43	Emitter formation using laser doping technique on n- and p-type c-Si substrates. Applied Surface Science, 2015, 336, 182-187.	6.1	8
44	Black silicon solar cells with interdigitated back-contacts achieve 22.1% efficiency. Nature Nanotechnology, 2015, 10, 624-628.	31.5	512
45	Low Surface Recombination in Silicon-Heterojunction Solar Cells With Rear Laser-Fired Contacts From Aluminum Foils. IEEE Journal of Photovoltaics, 2015, 5, 805-811.	2.5	15
46	3D TCAD modeling of laser processed c-Si solar cells. , 2015, , .		1
47	TCO-free Low-temperature p+ Emitters for Back-junction c-Si Solar Cells. Energy Procedia, 2015, 77, 296-303.	1.8	2
48	Numerical simulations of rear point-contacted solar cells on 2.2% cm p-type c-Si substrates. Progress in Photovoltaics: Research and Applications, 2015, 23, 69-77.	8.1	13
49	Laser Induced Forward Transfer for front contact improvement in silicon heterojunction solar cells. Applied Surface Science, 2015, 336, 89-95.	6.1	13
50	Photovoltaic and fuel cells in power MEMS for smart energy management. , 2014, , 431-471.		1
51	Rear Contact Pattern Optimization based on 3D Simulations for IBC Solar Cells with Point-like Doped Contacts. Energy Procedia, 2014, 55, 47-52.	1.8	11
52	c-Si Solar Cells based on Laser-processed Dielectric Films. Energy Procedia, 2014, 55, 255-264.	1.8	10
53	High voltage ultrathin-photovoltaic minimodules: Fabrication technology and application to bioimplantable telesupplying. Microelectronic Engineering, 2014, 119, 109-114.	2.4	2
54	Recovery of Indium-tin-oxide/silicon Heterojunction Solar Cells by Thermal Annealing. Energy Procedia, 2014, 44, 3-9.	1.8	7

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55	Optimization of Laser Processes for Local Rear Contacting of Passivated Silicon Solar Cells. Energy Procedia, 2014, 44, 234-243.	1.8	6
56	Laser processing of Al ₂ O ₃ /SiC:H stacks: a feasible solution for the rear surface of high efficiency p-type c-Si solar cells. Progress in Photovoltaics: Research and Applications, 2013, 21, 1171-1175.	8.1	28
57	An efficient fault diagnosis method for PV systems based on operating voltage-window. Energy Conversion and Management, 2013, 73, 350-360.	9.2	85
58	SENSOSOL: MultiFOV 4-Quadrant high precision sun sensor for satellite attitude control. , 2013, , .		2
59	New laser-based approaches to improve the passivation and rear contact quality in high efficiency crystalline silicon solar cells. Proceedings of SPIE, 2013, , .	0.8	1
60	Boron diffused emitters passivated with Al ₂ O ₃ films. , 2013, , .		0
61	Analysis of the dynamic short-circuit resistance in organic bulk-heterojunction solar cells: relation to the charge carrier collection efficiency. Organic Electronics, 2013, 14, 1643-1648.	2.6	12
62	An IBC solar cell for the UPC CubeSat-1 mission. , 2013, , .		1
63	Surface passivation and optical characterization of Al ₂ O ₃ /a-SiC _x stacks on c-Si substrates. Beilstein Journal of Nanotechnology, 2013, 4, 726-731.	2.8	28
64	Laser Processes for Contact Optimization in c-Si Solar Cells. , 2013, , .		1
65	Influence of wavelength on laser doping and laser-fired contact processes for c-Si solar cells. Proceedings of SPIE, 2012, , .	0.8	3
66	Accurate and Wide-Field-of-View MEMS-Based Sun Sensor for Industrial Applications. IEEE Transactions on Industrial Electronics, 2012, 59, 4871-4880.	7.9	37
67	p-type c-Si solar cells based on rear side laser processing of Al ₂ O ₃ /SiC _x stacks. Solar Energy Materials and Solar Cells, 2012, 106, 80-83.	6.2	39
68	Parameterization of local laser doping and laser-fired contacts for high efficiency c-Si solar cells. Physics Procedia, 2012, 39, 693-701.	1.2	4
69	Laser-fired contact optimization in c-Si solar cells. Progress in Photovoltaics: Research and Applications, 2012, 20, 173-180.	8.1	45
70	Light harvesting photovoltaic mini-generator. Progress in Photovoltaics: Research and Applications, 2012, 20, 967-974.	8.1	3
71	Integrated design of a smart analog sun sensor with CMOS technology. , 2012, , .		0
72	Crystalline silicon solar cells beyond 20% efficiency. , 2011, , .		7

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73	A new design of high precision solar microsensor for satellite applications. , 2010, , .		3
74	A Miniaturized Two Axis Sun Sensor for Attitude Control of Nano-Satellites. IEEE Sensors Journal, 2010, 10, 1623-1632.	4.7	57
75	c-Si photovoltaic arrays. , 2009, , .		0
76	Comparison of bulk micromachined high voltage light scavengers. , 2009, , .		0
77	Advances in a baseline process towards high efficiency c-Si solar cell fabrication. , 2009, , .		0
78	MEMS solar sensor testing for satellite applications. , 2009, , .		7
79	High voltage photovoltaic mini-modules. Progress in Photovoltaics: Research and Applications, 2008, 16, 369-377.	8.1	28
80	Very low recombination phosphorus emitters for high efficiency crystalline silicon solar cells. Semiconductor Science and Technology, 2008, 23, 125032.	2.0	11
81	Optocoupler driving of MEMS electrostatic switches. Journal of Micromechanics and Microengineering, 2008, 18, 055004.	2.6	6
82	Post-etching shaping of macroporous silicon. Proceedings of SPIE, 2007, , .	0.8	1
83	Tracking Control System Using an Incident Radiation Angle Microsensor. IEEE Transactions on Industrial Electronics, 2007, 54, 1207-1216.	7.9	25
84	c-Si surface passivation for photovoltaic applications by means of antireflective amorphous silicon carbide layers. , 2007, , .		4
85	Photovoltaic Mini-modules Using Silicon on Insulator Technology. , 2007, , .		0
86	Investigation of the Surface Passivation of P+-Type Si Emitters by PECVD Silicon Carbide Films. , 2006, , .		1
87	n-type emitter surface passivation in c-Si solar cells by means of antireflective amorphous silicon carbide layers. Journal of Applied Physics, 2006, 100, 073703.	2.5	9
88	Fabrication of monolithic photovoltaic arrays on crystalline silicon by wafer bonding and deep etching techniques. Progress in Photovoltaics: Research and Applications, 2005, 13, 617-625.	8.1	15
89	Response of c-Si PV arrays under monochromatic light for MEMS power supply. Journal of Micromechanics and Microengineering, 2005, 15, 1446-1453.	2.6	9
90	Effective lifetime measurements on phosphorus emitters prepared with planar diffusion sources. , 2005, , .		0

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91	Short-circuit current of solar cells under artificial light. Progress in Photovoltaics: Research and Applications, 2003, 11, 131-138.	8.1	4
92	Fabrication of monolithic photovoltaic minimodules using bulk micromachining techniques.. , 2003, , .		3
93	Multichip module photovoltaic miniarrays. IEEE Transactions on Advanced Packaging, 2001, 24, 169-174.	1.6	11
94	Biosend, an automated biomedical acquisition system. , 0, , .		0