

Marta Victoria

List of Publications by Year in descending order

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62
papers

1,687
citations

394421

19
h-index

302126

39
g-index

64
all docs

64
docs citations

64
times ranked

1308
citing authors

#	ARTICLE	IF	CITATIONS
1	Solar photovoltaics is ready to power a sustainable future. <i>Joule</i> , 2021, 5, 1041-1056.	24.0	265
2	On the analytical approach for modeling photovoltaic systems behavior. <i>Journal of Power Sources</i> , 2014, 247, 467-474.	7.8	192
3	Comparative analysis of different secondary optical elements for aspheric primary lenses. <i>Optics Express</i> , 2009, 17, 6487.	3.4	140
4	The role of storage technologies throughout the decarbonisation of the sector-coupled European energy system. <i>Energy Conversion and Management</i> , 2019, 201, 111977.	9.2	138
5	Early decarbonisation of the European energy system pays off. <i>Nature Communications</i> , 2020, 11, 6223.	12.8	123
6	Characterization of the spatial distribution of irradiance and spectrum in concentrating photovoltaic systems and their effect on multi-junction solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2013, 21, 308-318.	8.1	74
7	Concentration photovoltaic optical system irradiance distribution measurements and its effect on multi-junction solar cells. <i>Progress in Photovoltaics: Research and Applications</i> , 2012, 20, 423-430.	8.1	65
8	A review of the promises and challenges of micro-concentrator photovoltaics. <i>AIP Conference Proceedings</i> , 2017, , .	0.4	55
9	Self-consumption for energy communities in Spain: A regional analysis under the new legal framework. <i>Energy Policy</i> , 2021, 150, 112144.	8.8	53
10	Cost-free feed-in tariffs for renewable energy deployment in Spain. <i>Renewable Energy</i> , 2015, 81, 411-420.	8.9	47
11	Speed of technological transformations required in Europe to achieve different climate goals. <i>Joule</i> , 2022, 6, 1066-1086.	24.0	45
12	Antireflective coatings for multijunction solar cells under wide-angle ray bundles. <i>Optics Express</i> , 2012, 20, 8136.	3.4	39
13	Design and modeling of a cost-effective achromatic Fresnel lens for concentrating photovoltaics. <i>Optics Express</i> , 2016, 24, A1245.	3.4	35
14	Assessment of the optical efficiency of a primary lens to be used in a CPV system. <i>Solar Energy</i> , 2016, 134, 406-415.	6.1	33
15	Modeling all alternative solutions for highly renewable energy systems. <i>Energy</i> , 2021, 234, 121294.	8.8	33
16	Effects of Temperature on Hybrid Lens Performance. <i>AIP Conference Proceedings</i> , 2011, , .	0.4	31
17	Power rating of CPV systems based on spectrally corrected DNI. , 2012, , .		29
18	Determination of spectral variations by means of component cells useful for CPV rating and design. <i>Progress in Photovoltaics: Research and Applications</i> , 2016, 24, 663-679.	8.1	23

#	ARTICLE	IF	CITATIONS
19	Using validated reanalysis data to investigate the impact of the PV system configurations at high penetration levels in European countries. Progress in Photovoltaics: Research and Applications, 2019, 27, 576-592.	8.1	20
20	Future operation of hydropower in Europe under high renewable penetration and climate change. IScience, 2021, 24, 102999.	4.1	20
21	Hourly-resolution analysis of electricity decarbonization in Spain (2017–2030). Applied Energy, 2019, 233-234, 674-690.	10.1	19
22	Durability of dielectric fluids for concentrating photovoltaic systems. Solar Energy Materials and Solar Cells, 2013, 113, 31-36.	6.2	17
23	Tuning the current ratio of a CPV system to maximize the energy harvesting in a particular location. , 2013, , .		15
24	Spectral study and classification of worldwide locations considering several multijunction solar cell technologies. Progress in Photovoltaics: Research and Applications, 2016, 24, 1214-1228.	8.1	15
25	The role of photovoltaics in a sustainable European energy system under variable CO ₂ emissions targets, transmission capacities, and costs assumptions. Progress in Photovoltaics: Research and Applications, 2020, 28, 483-492.	8.1	15
26	Understanding causes and effects of non-uniform light distributions on multi-junction solar cells: Procedures for estimating efficiency losses. AIP Conference Proceedings, 2015, , .	0.4	14
27	Experimental analysis and simulation of a production line for <sc>CPV</sc> modules: impact of defects, misalignments, and binning of receivers. Energy Science and Engineering, 2017, 5, 257-269.	4.0	12
28	Performance assessment of using various solar radiation data in modelling large-scale solar thermal systems integrated in district heating networks. Renewable Energy, 2022, 190, 699-712.	8.9	11
29	Experimental characterization of achromatic doublet on glass (ADG) Fresnel lenses. AIP Conference Proceedings, 2017, , .	0.4	9
30	Experimental analysis of a photovoltaic concentrator based on a single reflective stage immersed in an optical fluid. Progress in Photovoltaics: Research and Applications, 2014, 22, 1213-1225.	8.1	8
31	Spectral Impact on Multijunction Solar Cells Obtained by Means of Component Cells of a Different Technology. IEEE Journal of Photovoltaics, 2018, 8, 646-653.	2.5	8
32	Indoor Characterization of Multi-Junction Solar Cells Under Non Uniform Light Patterns. , 2010, , .		7
33	A novel achromatic Fresnel lens for high concentrating photovoltaic systems. AIP Conference Proceedings, 2016, , .	0.4	7
34	CO2 quota attribution effects on the European electricity system comprised of self-centred actors. Advances in Applied Energy, 2021, 2, 100012.	13.2	6
35	Characterization Capabilities of Solar Simulators for Concentrator Photovoltaic Modules. Japanese Journal of Applied Physics, 2012, 51, 10ND12.	1.5	6
36	Hybrid dome with total internal reflector as a secondary optical element for CPV. AIP Conference Proceedings, 2016, , .	0.4	5

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37	Characterization Capabilities of Solar Simulators for Concentrator Photovoltaic Modules. Japanese Journal of Applied Physics, 2012, 51, 10ND12.	1.5	4
38	Measuring primary lens efficiency: A proposal for standardization. AIP Conference Proceedings, 2016, , .	0.4	4
39	Improving Energy Transition Analysis Tool through Hydropower Statistical Modelling. Energies, 2021, 14, 98.	3.1	4
40	Probing the effects of non-uniform light beams and chromatic aberration on the performance of concentrators using multijunction cells. , 2012, , .		3
41	Indoor Experimental Assessment of the Efficiency and Irradiance Spot of the Achromatic Doublet on Glass (ADG) Fresnel Lens for Concentrating Photovoltaics. Journal of Visualized Experiments, 2017, , .	0.3	3
42	Improvements in the manufacturing process of achromatic doublet on glass (ADG) Fresnel lens. AIP Conference Proceedings, 2018, , .	0.4	3
43	Comparison of achromatic doublet on glass Fresnel lenses for concentrator photovoltaics. Optics Express, 2021, 29, 20601.	3.4	3
44	Characterizing FluidReflex Optical Transfer Function. Japanese Journal of Applied Physics, 2012, 51, 10ND06.	1.5	2
45	Temperature effects on two-stage optics made of silicone. AIP Conference Proceedings, 2014, , .	0.4	2
46	Impact of the temperature dependence of CPV optics transmittance on the current mismatch of multi-junction solar cells. AIP Conference Proceedings, 2018, , .	0.4	2
47	Exploring flexibility of near-optimal solutions to highly renewable energy systems. , 2021, , .		2
48	Characterizing FluidReflex Optical Transfer Function. Japanese Journal of Applied Physics, 2012, 51, 10ND06.	1.5	2
49	Principal spatiotemporal mismatch and electricity price patterns in a highly decarbonized networked European power system. IScience, 2022, 25, 104380.	4.1	2
50	FluidReflex Concentrator: From Elementary Unit to Module. , 2011, , .		1
51	Spatial and spectral non-uniform irradiance distribution effects on multijunction solar cells. , 2011, , .		1
52	Outdoor performance of fluid dielectric CPV modules. AIP Conference Proceedings, 2012, , .	0.4	1
53	Modeling of a concentrating photovoltaic module. , 2017, , .		1
54	From component to multi-junction solar cells for spectral monitoring. AIP Conference Proceedings, 2018, , .	0.4	1

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55	Outdoor experimental characterization of novel high-efficiency high-concentrator photovoltaic (HCPV) modules using achromatic doublet on glass (ADG) Fresnel lenses as primary optics. AIP Conference Proceedings, 2019, , .	0.4	1
56	NACIR: A new project on CPV'S funded by the European comission under 7THFP. , 2009, , .		0
57	Optical Characterization of FluidReflex Concentrator. , 2010, , .		0
58	A manufacturable achromatic fresnel lens for CPV. , 2016, , .		0
59	Using a multi-junction cell receiver as self-detector for spectrally-resolved optical efficiency measurement of concentrators. , 2016, , .		0
60	Spectrally-resolved optical efficiency using a multi-junction cell as light sensor: Application cases. AIP Conference Proceedings, 2017, , .	0.4	0
61	A strategy to ensure the correct thickness of optical couplers in concentrating photovoltaic systems. AIP Conference Proceedings, 2018, , .	0.4	0
62	Technical specification IEC TS 62989:2018 " Primary optics for concentrator photovoltaic systems. AIP Conference Proceedings, 2018, , .	0.4	0