Daniel Chemisana

List of Publications by Year
in descending order

106	3,372	94381	155592
papers	citations	37 h-index	55 g-index

106	106	106	3001
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Building Integrated Concentrating Photovoltaics: A review. Renewable and Sustainable Energy Reviews, 2011, 15, 603-611.	8.2	260
2	Photovoltaic/thermal (PVT) systems: A review with emphasis on environmental issues. Renewable Energy, 2017, 105, 270-287.	4.3	161
3	Photovoltaic-green roofs: An experimental evaluation of system performance. Applied Energy, 2014, 119, 246-256.	5.1	99
4	Life Cycle Assessment of a Building Integrated Concentrated Photovoltaic scheme. Applied Energy, 2013, 111, 505-514.	5.1	89
5	Performance analysis of a dielectric based 3D building integrated concentrating photovoltaic system. Solar Energy, 2014, 103, 525-540.	2.9	83
6	An experimental study of a new hybrid jet impingement/micro-channel cooling scheme. Applied Thermal Engineering, 2010, 30, 2058-2066.	3.0	81
7	Concentrating solar systems: Life Cycle Assessment (LCA) and environmental issues. Renewable and Sustainable Energy Reviews, 2017, 78, 916-932.	8.2	81
8	Roadmap for the next-generation of hybrid photovoltaic-thermal solar energy collectors. Solar Energy, 2018, 174, 386-398.	2.9	77
9	Effect of a hybrid jet impingement/micro-channel cooling device on the performance of densely packed PV cells under high concentration. Solar Energy, 2011, 85, 2655-2665.	2.9	73
10	Solar radiation manipulations and their role in greenhouse claddings: Fresnel lenses, NIR- and UV-blocking materials. Renewable and Sustainable Energy Reviews, 2013, 18, 271-287.	8.2	73
11	Solar radiation manipulations and their role in greenhouse claddings: Fluorescent solar concentrators, photoselective and other materials. Renewable and Sustainable Energy Reviews, 2013, 27, 175-190.	8.2	73
12	Hybrid photovoltaicâ€“thermal solar collectors dynamic modeling. Applied Energy, 2013, 101, 797-807.	5.1	68
13	Mid-infrared emissivity of crystalline silicon solar cells. Solar Energy Materials and Solar Cells, 2018, 174, 607-615.	3.0	68
14	Life cycle analysis of a building-integrated solar thermal collector, based on embodied energy and embodied carbon methodologies. Energy and Buildings, 2014, 84, 378-387.	3.1	60
15	Modelling and simulation of Building-Integrated solar thermal systems: Behaviour of the coupled building/system configuration. Renewable and Sustainable Energy Reviews, 2015, 48, 178-191.	8.2	60
16	Modelling and simulation of Building-Integrated solar thermal systems: Behaviour of the system. Renewable and Sustainable Energy Reviews, 2015, 45, 36-51.	8.2	59
17	Characterization of a photovoltaic-thermal module for Fresnel linear concentrator. Energy Conversion and Management, 2011, 52, 3234-3240.	4.4	58
18	A critical analysis of factors affecting photovoltaic-green roof performance. Renewable and Sustainable Energy Reviews, 2015, 43, 264-280.	8.2	58

#	Article	IF	Citations
19	Very high fluxes for concentrating photovoltaics: Considerations from simple experiments and modeling. Renewable Energy, 2012, 38, 31-39.	4.3	56
20	Review and perspectives on Life Cycle Analysis of solar technologies with emphasis on building-integrated solar thermal systems. Renewable Energy, 2015, 75, 833-846.	4.3	56
21	Characterization of volume holographic optical elements recorded in Bayfol HX photopolymer for solar photovoltaic applications. Optics Express, 2016, 24, A720.	1.7	56
22	Building integration of concentrating systems for solar cooling applications. Applied Thermal Engineering, 2013, 50, 1472-1479.	3.0	53
23	Experimental performance of a Fresnel-transmission PVT concentrator for building-faÃ§ade integration. Renewable Energy, 2016, 85, 564-572.	4.3	53
24	Biogas from a full scale digester operated in psychrophilic conditions and fed only with fruit and vegetable waste. Renewable Energy, 2019, 133, 676-684.	4.3	53
25	The environmental performance of a building-integrated solar thermal collector, based on multiple approaches and life-cycle impact assessment methodologies. Building and Environment, 2015, 87, 45-58.	3.0	47
26	Building-integrated solar thermal system with/without phase change material: Life cycle assessment based on ReCiPe, USEtox and Ecological footprint. Journal of Cleaner Production, 2018, 193, 672-683.	4.6	47
27	Numerical study of a hybrid jet impingement/micro-channel cooling scheme. Applied Thermal Engineering, 2012, 33-34, 237-245.	3.0	46
28	Ethylene tetrafluoroethylene (ETFE) material: Critical issues and applications with emphasis on buildings. Renewable and Sustainable Energy Reviews, 2018, 82, 2186-2201.	8.2	46
29	Evaluation of photovoltaic-green and other roofing systems by means of ReCiPe and multiple life cycleâ€“based environmental indicators. Building and Environment, 2015, 93, 376-384.	3.0	45
30	Holographic lenses for building integrated concentrating photovoltaics. Applied Energy, 2013, 110, 227-235.	5.1	44
31	Experimental study of integrated collector storage solar water heaters. Renewable Energy, 2013, 50, 1083-1094.	4.3	44
32	Comparison of Fresnel concentrators for building integrated photovoltaics. Energy Conversion and Management, 2009, 50, 1079-1084.	4.4	43
33	Evaluation of a multi-stage guided search approach for the calibration of building energy simulation models. Energy and Buildings, 2015, 87, 370-385.	3.1	43
34	Storage systems for building-integrated photovoltaic (BIPV) and building-integrated photovoltaic/thermal (BIPVT) installations: Environmental profile and other aspects. Science of the Total Environment, 2020, 699, 134269.	3.9	43
35	A two-dimensional finite element model of front surface current flow in cells under non-uniform, concentrated illumination. Solar Energy, 2009, 83, 1459-1465.	2.9	42
36	Enhancing performance of a linear dielectric based concentrating photovoltaic system using a reflective film along the edge. Energy, 2014, 73, 177-191.	4.5	41

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37	Photovoltaic-green roofs: a life cycle assessment approach with emphasis on warm months of Mediterranean climate. Journal of Cleaner Production, 2014, 72, 57-75.	4.6	40
38	Linear Fresnel concentrators for building integrated applications. Energy Conversion and Management, 2010, 51, 1476-1480.	4.4	36
39	Photovoltaic/thermal systems based on concentrating and non-concentrating technologies: Working fluids at low, medium and high temperatures. Renewable and Sustainable Energy Reviews, 2021, 137, 110625.	8.2	36
40	Environmental assessment of a building-integrated linear dielectric-based concentrating photovoltaic according to multiple life-cycle indicators. Journal of Cleaner Production, 2016, 131, 773-784.	4.6	34
41	Biogas production by means of an anaerobic-digestion plant in France: LCA of greenhouse-gas emissions and other environmental indicators. Science of the Total Environment, 2019, 670, 1226-1239.	3.9	34
42	An outdoor Test Reference Environment for double skin applications of Building Integrated PhotoVoltaic Systems. Energy and Buildings, 2012, 50, 63-73.	3.1	33
43	Fluid-based spectrally selective filters for direct immersed PVT solar systems in building applications. Renewable Energy, 2018, 123, 263-272.	4.3	33
44	Environmental assessment of a pork-production system in North-East of Spain focusing on life-cycle swine nutrition. Journal of Cleaner Production, 2016, 137, 105-115.	4.6	32
45	Numerical study of PCM integration impact on overall performances of a highly building-integrated solar collector. Renewable Energy, 2019, 137, 10-19.	4.3	31
46	Design and optical performance of a nonimaging Fresnel transmissive concentrator for building integration applications. Energy Conversion and Management, 2011, 52, 3241-3248.	4.4	30
47	Life cycle energy analysis and embodied carbon of a linear dielectric-based concentrating photovoltaic appropriate for building-integrated applications. Energy and Buildings, 2015, 107, 366-375.	3.1	29
48	Building-integrated solar thermal systems based on vacuum-tube technology: Critical factors focusing on life-cycle environmental profile. Renewable and Sustainable Energy Reviews, 2016, 65, 1199-1215.	8.2	27
49	Dielectric-based 3D building-integrated concentrating photovoltaic modules: An environmental life-cycle assessment. Energy and Buildings, 2017, 138, 514-525.	3.1	27
50	Holographic solar energy systems: The role of optical elements. Renewable and Sustainable Energy Reviews, 2016, 59, 130-140.	8.2	26
51	Characterization of Fresnel lens optical performances using an opal diffuser. Energy Conversion and Management, 2011, 52, 658-663.	4.4	25
52	Building-Integrated Photovoltaic/Thermal (BIPVT): LCA of a faÃ§ade-integrated prototype and issues about human health, ecosystems, resources. Science of the Total Environment, 2019, 660, 1576-1592.	3.9	25
53	Broadband behavior of transmission volume holographic optical elements for solar concentration. Optics Express, 2015, 23, A671.	1.7	24
54	Cumulative energy demand and global warming potential of a building-integrated solar thermal system with/without phase change material. Journal of Environmental Management, 2018, 212, 301-310.	3.8	24

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55	User behaviour models to forecast electricity consumption of residential customers based on smart metering data. Energy Reports, 2022, 8, 3680-3691.	2.5	23
56	Optical performance of solar reflective concentrators: A simple method for optical assessment. Renewable Energy, 2013, 57, 120-129.	4.3	21
57	Performance and stability of semitransparent OPVs for building integration: A benchmarking analysis. Renewable Energy, 2019, 137, 177-188.	4.3	21
58	Numerical analysis of the most appropriate heat transfer correlations for free ventilated double skin photovoltaic faÃ§ades. Applied Thermal Engineering, 2013, 57, 57-68.	3.0	19
59	A dynamic model based on the piston flow concept for the thermal characterization of solar collectors. Applied Energy, 2012, 94, 244-250.	5.1	18
60	Is conversion efficiency still relevant to qualify advanced multi-junction solar cells?. Progress in Photovoltaics: Research and Applications, 2017, 25, 242-254.	4.4	18
61	Solar Cells Operating under Thermal Stress. Cell Reports Physical Science, 2020, 1, 100267.	2.8	17
62	Energy and Luminous Performance Investigation of an OPV/ETFE Glazing Element for Building Integration. Energies, 2019, 12, 1870.	1.6	16
63	Payback times and multiple midpoint/endpoint impact categories about Building-Integrated Solar Thermal (BIST) collectors. Science of the Total Environment, 2019, 658, 1039-1055.	3.9	15
64	Energetic simulation of a dielectric photovoltaic-thermal concentrator. Solar Energy, 2018, 169, 374-385.	2.9	14
65	Concentrating photovoltaic/thermal system with thermal and electricity storage: CO2.eq emissions and multiple environmental indicators. Journal of Cleaner Production, 2018, 192, 376-389.	4.6	13
66	Outdoor performance evaluation of a holographic solar concentrator optimized for building integration. Applied Energy, 2019, 250, 1073-1084.	5.1	13
67	Full modeling and experimental validation of cylindrical holographic lenses recorded in Bayfol HX photopolymer and partly operating in the transition regime for solar concentration. Optics Express, 2018, 26, A398.	1.7	11
68	Stacked volume holographic gratings for extending the operational wavelength range in LED and solar applications. Applied Optics, 2020, 59, 2569.	0.9	10
69	Energy Simulation of a Holographic PVT Concentrating System for Building Integration Applications. Energies, 2016, 9, 577.	1.6	9
70	Disaggregation process for dynamic multidimensional heat flux in building simulation. Energy and Buildings, 2017, 148, 298-310.	3.1	9
71	Investigation of AlInAsSb/GaSb tandem cells â€“ A first step towards GaSb-based multi-junction solar cells. Solar Energy Materials and Solar Cells, 2021, 219, 110795.	3.0	9
72	Full-color multiplexed reflection hologram of diffusing objects recorded by using simultaneous exposure with different times in photopolymer BayfolÂ® HX. Optics and Laser Technology, 2021, 143, 107303.	2.2	9

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73	Effect of non-uniformity on concentrator multi-junction solar cells equipped with refractive secondary optics under shading conditions. Energy, 2022, 238, 122044.	4.5	8
74	Performance of a dielectric PVT concentrator for building-faÃ§ade integration. Optics Express, 2018, 26, A892.	1.7	8
75	EMPOWERING, a Smart Big Data Framework for Sustainable Electricity Suppliers. IEEE Access, 2018, 6, 71132-71142.	2.6	7
76	Conjugate refractiveâ€“reflective based building integrated photovoltaic system. Materials Letters, 2018, 228, 25-28.	1.3	7
77	Spectral nature of soiling and its impact on multi-junction based concentrator systems. Solar Energy Materials and Solar Cells, 2019, 201, 110118.	3.0	7
78	Location-Specific Spectral and Thermal Effects in Tracking and Fixed Tilt Photovoltaic Systems. IScience, 2020, 23, 101634.	1.9	7
79	Solar Power Generation. International Journal of Photoenergy, 2013, 2013, 1-2.	1.4	6
80	Dynamic performance assessment of multidimensional heat transfer in buildings. Journal of Building Engineering, 2019, 26, 100893.	1.6	6
81	Characterisation and impact of non-uniformity on multi-junction solar cells (MJSC) caused by concentrator optics. AIP Conference Proceedings, 2019, , .	0.3	6
82	Corpuscular interaction gravity from uncertainty principle. Europhysics Letters, 2020, 130, 60002.	0.7	6
83	Electrical performance increase of concentrator solar cells under Gaussian temperature profiles. Progress in Photovoltaics: Research and Applications, 2013, 21, 444-455.	4.4	5
84	Building-Integration of High-Concentration Photovoltaic Systems. Green Energy and Technology, 2015, , 353-376.	0.4	5
85	Fundamentals of solar cells. , 2019, , 3-33.		5
86	Quantum fluctuations and the Casimir effect. International Journal of Modern Physics D, 2020, 29, 2050059.	0.9	5
87	Life cycle assessment of a building added concentrating photovoltaic system (BACPV). Energy Procedia, 2017, 128, 194-201.	1.8	4
88	A data-driven method for unsupervised electricity consumption characterisation at the district level and beyond. Energy Reports, 2021, 7, 5667-5684.	2.5	4
89	Study of Full-Color Multiplexed Transmission Holograms of Diffusing Objects Recorded in Photopolymer Bayfol HX. Photonics, 2021, 8, 465.	0.9	4
90	Specially designed solar cells for hybrid photovoltaic-thermal generators. , 2016, , .		3

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91	Energy analysis of holographic lenses for solar concentration. Proceedings of SPIE, 2017, , .	0.8	3
92	New CPV Systems With Static Reflectors. , 2010, , .		2
93	Design and characterization of refractive secondary optical elements for a point-focus Fresnel lens-based high CPV system. AIP Conference Proceedings, 2017, , .	0.3	2
94	Improved Light Incoupling in Planar Solar Cells via Improved Texture Morphology of PDMS Scattering Layer. , 2017, , .		2
95	Quantum Fluctuations and the N-Slit Interference. International Journal of Theoretical Physics, 2021, 60, 1-9.	0.5	2
96	Graph Theory-Based Characterization and Classification of Household Photovoltaics. Applied Sciences (Switzerland), 2021, 11, 10999.	1.3	2
97	Tilt optimization of a building integrated solar concentrating unit. , 2012, , .		1
98	Fine-Tuning of Multijunction Solar Cells: An In-Depth Evaluation. IEEE Journal of Photovoltaics, 2019, 9, 1637-1643.	1.5	1
99	Life-cycle assessment of photovoltaic systems. , 2019, , 35-73.		1
100	Generalized Dirac Equation for a particle in a gravitational field. General Relativity and Gravitation, 2021, 53, 1.	0.7	1
101	Data-Driven Virtual Replication of Thermostatically Controlled Domestic Heating Systems. Energies, 2021, 14, 5430.	1.6	1
102	Polygeneration systems in buildings. , 2022, , 351-410.		1
103	Assessment And Comparison Of Concentrator Cell Carrier Efficiencies Under Very High Fluxes. , 2011, , .		0
104	Experimental and theoretical study of the infrared emissivity of crystalline silicon solar cells. , 2017, , .		0
105	Influence of Angular and Chromatic Selectivity on the Design of Holographic Solar Concentrators. , 2014, , .		0
106	Holographic Photovoltaic-Thermal Module for Window Louvre Integration: Design and Simulation. , 2016, , .		0