

Klemens Ilse

List of Publications by Year in descending order

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Version: 2024-02-01

42
papers

1,790
citations

361413

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h-index

330143

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g-index

43
all docs

43
docs citations

43
times ranked

838
citing authors

#	ARTICLE	IF	CITATIONS
1	Outdoor performance of anti-soiling coatings in various climates of Saudi Arabia. Solar Energy Materials and Solar Cells, 2022, 235, 111470.	6.2	13
2	Laboratory calibration of a light scattering soiling sensor. Solar Energy, 2022, 236, 569-575.	6.1	3
3	Abrasion testing of anti-reflective coatings under various conditions. Solar Energy Materials and Solar Cells, 2022, 240, 111732.	6.2	7
4	Field evaluation of two types of EDS-integrated PV modules with different configurations and surface properties. Solar Energy, 2022, 241, 515-524.	6.1	2
5	Dust potency in the context of solar photovoltaic (PV) soiling loss. Solar Energy, 2021, 220, 1040-1052.	6.1	48
6	Mitigation of soiling losses by smart heating and night tilting for ASC and standard PV module glass. , 2021, , .		2
7	Combined Soiling and Abrasion Testing of Antisoiling Coatings. IEEE Journal of Photovoltaics, 2020, 10, 243-249.	2.5	12
8	Loss analysis and optimization of PV module components and design to achieve higher energy yield and longer service life in desert regions. Applied Energy, 2020, 280, 116028.	10.1	20
9	Resilience of industrial PV module glass coatings to cleaning processes. Journal of Renewable and Sustainable Energy, 2020, 12, 053504.	2.0	13
10	Rotational force test method for determination of particle adhesion from a simplified model to realistic dusts. Journal of Renewable and Sustainable Energy, 2020, 12, .	2.0	6
11	Multi-year field assessment of seasonal variability of photovoltaic soiling and environmental factors in a desert environment. Solar Energy, 2020, 211, 1392-1402.	6.1	27
12	Effect of relative humidity on dust removal performance of electrodynamic dust shield. Journal of Electrostatics, 2020, 105, 103434.	1.9	20
13	Optimum PV module interconnection layout and mounting orientation to reduce inhomogeneous soiling losses in desert environments. Solar Energy, 2020, 203, 267-274.	6.1	18
14	Advanced performance testing of anti-soiling coatings - Part II: Particle-size dependent analysis for physical understanding of dust removal processes and determination of adhesion forces. Solar Energy Materials and Solar Cells, 2019, 202, 110049.	6.2	27
15	Effect of tilt angle on soiling in perpendicular wind. Solar Energy, 2019, 194, 294-301.	6.1	22
16	Influence of soiling and moisture ingress on long term PID susceptibility of photovoltaic modules. AIP Conference Proceedings, 2019, , .	0.4	5
17	Potential-Induced Degradation of Bifacial PERC Solar Cells Under Illumination. IEEE Journal of Photovoltaics, 2019, 9, 1522-1525.	2.5	14
18	Particle size-dependent adhesion forces and wind removal efficiency of anti-soiling coatings on textured solar glasses. MRS Communications, 2019, 9, 964-970.	1.8	11

#	ARTICLE	IF	CITATIONS
19	Advanced performance testing of anti-soiling coatings – Part I: Sequential laboratory test methodology covering the physics of natural soiling processes. Solar Energy Materials and Solar Cells, 2019, 202, 110048.	6.2	39
20	Techno-Economic Assessment of Soiling Losses and Mitigation Strategies for Solar Power Generation. Joule, 2019, 3, 2303-2321.	24.0	207
21	Solar PV soiling mitigation by electrodynamic dust shield in field conditions. Solar Energy, 2019, 188, 271-277.	6.1	40
22	Quantification of abrasion-induced ARC transmission losses from reflection spectroscopy. , 2019, , .		11
23	Dew as a Detrimental Influencing Factor for Soiling of PV Modules. IEEE Journal of Photovoltaics, 2019, 9, 287-294.	2.5	68
24	Measurement of electrodynamic dust shield efficiency in field conditions. Journal of Electrostatics, 2019, 97, 26-30.	1.9	18
25	Efficiency of Electrodynamic Dust Shield at Dust Loading Levels Relevant to Solar Energy Applications. IEEE Journal of Photovoltaics, 2018, 8, 196-202.	2.5	34
26	Dominant environmental parameters for dust deposition and resuspension in desert climates. Aerosol Science and Technology, 2018, 52, 788-798.	3.1	52
27	Comparing Indoor and Outdoor Soiling Experiments for Different Glass Coatings and Microstructural Analysis of Particle Caking Processes. IEEE Journal of Photovoltaics, 2018, 8, 203-209.	2.5	43
28	Investigation of factors affecting condensation on soiled PV modules. Solar Energy, 2018, 159, 488-500.	6.1	92
29	Fundamentals of soiling processes on photovoltaic modules. Renewable and Sustainable Energy Reviews, 2018, 98, 239-254.	16.4	185
30	Electrodynamic dust shield performance under simulated operating conditions for solar energy applications. Solar Energy Materials and Solar Cells, 2018, 185, 80-85.	6.2	42
31	Comprehensive analysis of soiling and cementation processes on PV modules in Qatar. Solar Energy Materials and Solar Cells, 2018, 186, 309-323.	6.2	109
32	Characterization of dust accumulated on photovoltaic panels in Doha, Qatar. Solar Energy, 2017, 142, 123-135.	6.1	182
33	Modeling of photovoltaic soiling loss as a function of environmental variables. Solar Energy, 2017, 157, 397-407.	6.1	129
34	Time-of-day and Exposure Influences on PV Soiling. , 2017, , .		10
35	Integrated low-temperature process for the fabrication of amorphous Si nanoparticles embedded in Al ₂ O ₃ for non-volatile memory application. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2446-2451.	1.8	3
36	Enhanced density of negative fixed charges in Al ₂ O ₃ layers on Si through a subsequent deposition of TiO ₂ . Proceedings of SPIE, 2016, , .	0.8	1

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37	Microstructural analysis of the cementation process during soiling on glass surfaces in arid and semi-arid climates. Physica Status Solidi - Rapid Research Letters, 2016, 10, 525-529.	2.4	57
38	Outdoor soiling microscope for measuring particle deposition and resuspension. Solar Energy, 2016, 137, 158-164.	6.1	75
39	Integrated low-temperature process for the fabrication of amorphous Si nanoparticles embedded in Al ₂ O ₃ for non-volatile memory application (Phys. Status Solidi A 99 (2016)). Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2540-2540.	1.8	0
40	Performance Improvement Techniques for Photovoltaic Systems in Qatar: Results of First year of Outdoor Exposure. Energy Procedia, 2015, 77, 386-396.	1.8	27
41	Effect of dust and weather conditions on photovoltaic performance in Doha, Qatar. , 2015, , .		87
42	Geometrical correction factors for finite-size probe tips in microscopic four-point-probe resistivity measurements. Journal of Applied Physics, 2014, 116, .	2.5	9