

# Matthew Muller

## List of Publications by Year in descending order

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40  
papers

679  
citations

687363

13  
h-index

713466

21  
g-index

42  
all docs

42  
docs citations

42  
times ranked

364  
citing authors

#	ARTICLE	IF	CITATIONS
1	An investigation of the key parameters for predicting PV soiling losses. Progress in Photovoltaics: Research and Applications, 2017, 25, 291-307.	8.1	109
2	Quantifying Soiling Loss Directly From PV Yield. IEEE Journal of Photovoltaics, 2018, 8, 547-551.	2.5	66
3	Key parameters in determining energy generated by CPV modules. Progress in Photovoltaics: Research and Applications, 2015, 23, 1250-1259.	8.1	35
4	Predicting photovoltaic soiling losses using environmental parameters: An update. Progress in Photovoltaics: Research and Applications, 2019, 27, 210-219.	8.1	35
5	An Investigation into Spectral Parameters as they Impact CPV Module Performance. AIP Conference Proceedings, 2010, , .	0.4	34
6	Translating outdoor CPV $V_{oc}$ measurements to a CSTC power rating and the associated uncertainty. Progress in Photovoltaics: Research and Applications, 2015, 23, 1557-1571.	8.1	33
7	Extracting and Generating PV Soiling Profiles for Analysis, Forecasting, and Cleaning Optimization. IEEE Journal of Photovoltaics, 2020, 10, 197-205.	2.5	28
8	A scalable method for extracting soiling rates from PV production data. , 2016, , .		24
9	Improved PV Soiling Extraction Through the Detection of Cleanings and Change Points. IEEE Journal of Photovoltaics, 2021, 11, 519-526.	2.5	24
10	Evaluating the IEC 61215 Ed.3 NMOT procedure against the existing NOCT procedure with PV modules in a side-by-side configuration. , 2012, , .		22
11	Determining Outdoor CPV Cell Temperature. AIP Conference Proceedings, 2011, , .	0.4	21
12	Determining the effects of environment and atmospheric parameters on PV field performance. , 2016, , .		21
13	Mapping Photovoltaic Soiling Using Spatial Interpolation Techniques. IEEE Journal of Photovoltaics, 2019, 9, 272-277.	2.5	21
14	Design, characterization and indoor validation of the optical soiling detector $\alpha$ -DUSST. Solar Energy, 2020, 211, 1459-1468.	6.1	20
15	Photovoltaic fleet degradation insights. Progress in Photovoltaics: Research and Applications, 2022, 30, 1166-1175.	8.1	18
16	Minimizing Variation In Outdoor CPV Power Ratings. AIP Conference Proceedings, 2011, , .	0.4	15
17	A Method to Extract Soiling Loss Data from Soiling Stations with Imperfect Cleaning Schedules. , 2017, , .		15
18	Seasonal Trends of Soiling on Photovoltaic Systems. , 2017, , .		14

#	ARTICLE	IF	CITATIONS
19	An in-depth field validation of "DUSST": A novel low-maintenance soiling measurement device. Progress in Photovoltaics: Research and Applications, 2021, 29, 953-967.	8.1	11
20	Selection of optimal wavelengths for optical soiling modelling and detection in photovoltaic modules. Solar Energy Materials and Solar Cells, 2020, 212, 110539.	6.2	10
21	Effect of torque-tube parameters on rear-irradiance and rear-shading loss for bifacial PV performance on single-axis tracking systems. , 2019, , .		10
22	Tracking Soiling Losses: Assessment, Uncertainty, and Challenges in Mapping. IEEE Journal of Photovoltaics, 2022, 12, 114-118.	2.5	10
23	Component cell-based restriction of spectral conditions and the impact on CPV module power rating. Progress in Photovoltaics: Research and Applications, 2018, 26, 351-358.	8.1	9
24	Numerical Validation of an Algorithm for Combined Soiling and Degradation Analysis of Photovoltaic Systems. , 2019, , .		8
25	Quantifying Year-to-Year Variations in Solar Panel Soiling from PV Energy-Production Data. , 2017, , .		7
26	A unified global investigation on the spectral effects of soiling losses of PV glass substrates: preliminary results. , 2017, , .		7
27	Laboratory Studies of Particle Cementation and PV module Soiling. , 2017, , .		6
28	NREL Efforts to Address Soiling on PV Modules. , 2017, , .		6
29	Performance comparison of a BIPV roofing tile system in two mounting configurations. , 2009, , .		4
30	Optical cell temperature measurements of multiple CPV technologies in outdoor conditions. , 2013, , .		3
31	A side-by-side comparison of CPV module and system performance. Progress in Photovoltaics: Research and Applications, 2016, 24, 940-954.	8.1	3
32	Indoor and Outdoor Test Results for "DUSST", a Low-Cost, Low-Maintenance PV Soiling Sensor. , 2019, , .		3
33	Evaluating the Accuracy of Various Irradiance Models in Detecting Soiling of Irradiance Sensors. , 2019, , .		3
34	Performance Index Assessment for the PV Fleet Performance Data Initiative. , 2021, , .		3
35	PV Fleet Performance Data Initiative Program and Methodology. , 2020, , .		3
36	Automated detection of photovoltaic cleaning events: A performance comparison of techniques as applied to a broad set of labeled photovoltaic data sets. Progress in Photovoltaics: Research and Applications, 2022, 30, 567-577.	8.1	3

#	ARTICLE	IF	CITATIONS
37	Performance Comparison of Clipping Detection Techniques in AC Power Time Series. , 2021, , .		2
38	A methodology to analyze photovoltaic tracker uptime. Progress in Photovoltaics: Research and Applications, 2018, 26, 491-501.	8.1	1
39	Increased PV Soiling from High Module Voltages. , 2019, , .		1
40	A Method for Estimating Time-Series PV Production Loss From Solar Tracking Failures. IEEE Journal of Photovoltaics, 2022, 12, 119-126.	2.5	1