

# David Moser

## List of Publications by Year in descending order

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85  
papers

2,447  
citations

257450

24  
h-index

223800

46  
g-index

87  
all docs

87  
docs citations

87  
times ranked

2299  
citing authors

#	ARTICLE	IF	CITATIONS
1	True Cost of Solar Hydrogen. Solar Rrl, 2022, 6, 2100487.	5.8	62
2	Optimal Allocation Method for a Fair Distribution of the Benefits in an Energy Community. Solar Rrl, 2022, 6, 2100473.	5.8	7
3	Building integrated photovoltaic facades: challenges, opportunities and innovations. , 2022, , 201-229.		3
4	From investment optimization to fair benefit distribution in renewable energy community modelling. Applied Energy, 2022, 310, 118447.	10.1	30
5	Best practices for photovoltaic performance loss rate calculations. Progress in Energy, 2022, 4, 022003.	10.9	17
6	Progress in regional PV power forecasting: A sensitivity analysis on the Italian case study. Renewable Energy, 2022, 189, 983-996.	8.9	29
7	Review of photovoltaic module degradation, field inspection techniques and techno-economic assessment. Renewable and Sustainable Energy Reviews, 2022, 165, 112616.	16.4	26
8	Introduction: focus on characterisation and reliability of photovoltaic modules in utility-scale plants. Progress in Energy, 2022, 4, 030201.	10.9	0
9	Using machine learning in photovoltaics to create smarter and cleaner energy generation systems: A comprehensive review. Journal of Cleaner Production, 2022, 364, 132701.	9.3	41
10	Renewable Energy Communities: Business Models of Multi-family Housing Buildings. Green Energy and Technology, 2021, , 261-276.	0.6	1
11	Machine learning-based PV power forecasting methods for electrical grid management and energy trading. , 2021, , 165-194.		2
12	PV Systems with Storage. , 2021, , 1-28.		0
13	Improving the traditional levelized cost of electricity approach by including the integration costs in the <scp>techno-economic</scp> evaluation of future photovoltaic plants. International Journal of Energy Research, 2021, 45, 9252-9269.	4.5	11
14	Optimisation method to obtain marginal abatement cost-curve through EnergyPLAN software. Smart Energy, 2021, 1, 100002.	5.7	22
15	International collaboration framework for the calculation of performance loss rates: Data quality, benchmarks, and trends (towards a uniform methodology). Progress in Photovoltaics: Research and Applications, 2021, 29, 573-602.	8.1	25
16	The Role of Flexibility in Photovoltaic and Battery Optimal Sizing towards a Decarbonized Residential Sector. Energies, 2021, 14, 2326.	3.1	6
17	Italian protocol for massive solar integration: From solar imbalance regulation to firm 24/365 solar generation. Renewable Energy, 2021, 169, 425-436.	8.9	23
18	New PV Performance Loss Methodology Applying a Self-Regulated Multistep Algorithm. IEEE Journal of Photovoltaics, 2021, 11, 1087-1096.	2.5	8

#	ARTICLE	IF	CITATIONS
19	Performance Analysis and Degradation of a Large Fleet of PV Systems. IEEE Journal of Photovoltaics, 2021, 11, 1312-1318.	2.5	18
20	Multi-objective battery sizing optimisation for renewable energy communities with distribution-level constraints: A prosumer-driven perspective. Applied Energy, 2021, 297, 117171.	10.1	26
21	Imbalance mitigation strategy via flexible PV ancillary services: The Italian case study. Renewable Energy, 2021, 179, 1694-1705.	8.9	15
22	Design and Components of Photovoltaic Systems. , 2021, , .		0
23	Costs of utilityâ€scale photovoltaic systems integration in the future Italian energy scenarios. Progress in Photovoltaics: Research and Applications, 2021, 29, 786-801.	8.1	6
24	The impact of photovoltaic power estimation modeling on distribution grid voltages. , 2021, , .		0
25	Impact of weighted average cost of capital, capital expenditure, and other parameters on future utilityâ€scale PV levelised cost of electricity. Progress in Photovoltaics: Research and Applications, 2020, 28, 439-453.	8.1	247
26	Residual load probabilistic forecast for reserve assessment: A real case study. Renewable Energy, 2020, 149, 508-522.	8.9	15
27	Photovoltaic lifetime forecast model based on degradation patterns. Progress in Photovoltaics: Research and Applications, 2020, 28, 979-992.	8.1	26
28	Multi-Objective Optimization Model EPLANopt for Energy Transition Analysis and Comparison with Climate-Change Scenarios. Energies, 2020, 13, 3255.	3.1	23
29	Design of a residential photovoltaic system: the impact of the demand profile and the normative framework. Renewable Energy, 2020, 160, 1458-1467.	8.9	11
30	Operational Performance and Degradation of PV Systems Consisting of Six Technologies in Three Climates. Applied Sciences (Switzerland), 2020, 10, 5412.	2.5	10
31	The Value of PV Power Forecast and the Paradox of the â€Single Pricingâ€Scheme: The Italian Case Study. Energies, 2020, 13, 3945.	3.1	13
32	Outdoor PV System Monitoringâ€Input Data Quality, Data Imputation and Filtering Approaches. Energies, 2020, 13, 5099.	3.1	28
33	Classification and challenges of bottom-up energy system models - A review. Renewable and Sustainable Energy Reviews, 2020, 129, 109917.	16.4	167
34	Multi-objective investment optimization for energy system models in high temporal and spatial resolution. Applied Energy, 2020, 264, 114728.	10.1	38
35	A Comprehensive Analysis of Public and Private Funding for Photovoltaics Research and Development in the European Union, Norway, and Turkey. Energies, 2020, 13, 2743.	3.1	21
36	Italian protocol for massive solar integration: Imbalance mitigation strategies. Renewable Energy, 2020, 153, 725-739.	8.9	25

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37	Application of Dynamic Multi-Step Performance Loss Algorithm. , 2020, , .		2
38	PVplr: R Package Implementation of Multiple Filters and Algorithms for Time-series Performance Loss Rate Analysis. , 2020, , .		1
39	Analysis of Photovoltaic Performance Loss Rates of Six Module Types in Five Geographical Locations. IEEE Journal of Photovoltaics, 2019, 9, 1091-1096.	2.5	9
40	Predictive Energy Control Strategy for Peak Shaving and Shifting Using BESS and PV Generation Applied to the Retail Sector. Electronics (Switzerland), 2019, 8, 526.	3.1	30
41	New method for the early design of BIPV with electric storage: A case study in northern Italy. Sustainable Cities and Society, 2019, 48, 101400.	10.4	38
42	Performance Loss Rates of PV systems of Task 13 database. , 2019, , .		3
43	Service Lifetime Prediction of PV Modules and Systems: Progress of the SOLAR-TRAIN Project. , 2019, , .		1
44	Development of a big data bank for PV monitoring data, analysis and simulation in COST Action â€˜PEARL PVâ€™. , 2019, , .		2
45	Performance Loss Rate Consistency and Uncertainty Across Multiple Methods and Filtering Criteria. , 2019, , .		15
46	Transition pathways optimization methodology through EnergyPLAN software for long-term energy planning. Applied Energy, 2019, 235, 356-368.	10.1	94
47	Multi-objective optimization algorithm coupled to EnergyPLAN software: The EPLANopt model. Energy, 2018, 149, 213-221.	8.8	89
48	Comparison of Statistical and Deterministic Smoothing Methods to Reduce the Uncertainty of Performance Loss Rate Estimates. IEEE Journal of Photovoltaics, 2018, 8, 224-232.	2.5	20
49	Managing technical risks in <sc>PV</sc> investments: How to quantify the impact of risk mitigation measures for different <sc>PV</sc> project phases?. Progress in Photovoltaics: Research and Applications, 2018, 26, 597-607.	8.1	6
50	Introducing â€˜PEARL-PVâ€™: Performance and Reliability of Photovoltaic Systems: Evaluations of Large-Scale Monitoring Data. , 2018, , .		3
51	A Small-Scale Prototype for the Optimization of PV Generation and Battery Storage through the Use of a Building Energy Management System. , 2018, , .		23
52	Review of Statistical and Analytical Degradation Models for Photovoltaic Modules and Systems as Well as Related Improvements. IEEE Journal of Photovoltaics, 2018, 8, 1773-1786.	2.5	77
53	Photovoltaic generation forecast for power transmission scheduling: A real case study. Solar Energy, 2018, 174, 976-990.	6.1	23
54	Incorporating combined cycle gas turbine flexibility constraints and additional costs into the EPLANopt model: The Italian case study. Energy, 2018, 160, 33-43.	8.8	23

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55	Estimating Hourly Beam and Diffuse Solar Radiation in an Alpine Valley: A Critical Assessment of Decomposition Models. <i>Atmosphere</i> , 2018, 9, 117.	2.3	13
56	Identification of technical risks in the photovoltaic value chain and quantification of the economic impact. <i>Progress in Photovoltaics: Research and Applications</i> , 2017, 25, 592-604.	8.1	39
57	Deterministic and Stochastic Approaches for Day-Ahead Solar Power Forecasting. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2017, 139, .	1.8	38
58	Data-driven upscaling methods for regional photovoltaic power estimation and forecast using satellite and numerical weather prediction data. <i>Solar Energy</i> , 2017, 158, 1026-1038.	6.1	90
59	Inferring the Performance Ratio of PV systems distributed in an region: a real-case study in South Tyrol. , 2017, , .		2
60	Multi-Model Ensemble for day ahead prediction of photovoltaic power generation. <i>Solar Energy</i> , 2016, 134, 132-146.	6.1	86
61	Uncertainty analysis of a radiative transfer model using Monte Carlo method within 280â€“2500 nm region. <i>Solar Energy</i> , 2016, 132, 558-569.	6.1	6
62	Stabilization of 3d Transition Metal Hydrido Complexes in $\text{SrH}_{2/2}\text{Mg}_{2/2}[\text{Co}(\text{I})\text{H}_{5/5}]$ , $\text{BaH}_{2/2}\text{Mg}_{2/2}[\text{Co}(\text{I})\text{H}_{4/4}]$ , and $\text{RbH}_{2/2}\text{Mg}_{2/2}[\text{Co}(\text{I})\text{H}_{4/4}\text{Ni}(\text{O})\text{H}_{4/4}]$ via Easily Polarizable Hydride Ligands. <i>Inorganic Chemistry</i> , 2016, 55, 3576-3582.	4.0	4
63	Economic and environmental impact of photovoltaic and wind energy high penetration towards the achievement of the Italian 20-20-20 targets. , 2015, , .		7
64	Long term measurement accuracy analysis of a commercial monitoring system for photovoltaic plants. , 2015, , .		4
65	Structure and stability of high pressure synthesized $\text{MgTM}_2\text{H}_6$ (TM = Zr, Nb) hydrides. <i>Acta Materialia</i> , 2015, 96, 237-248.	7.9	10
66	Novel method for the improvement in the evaluation of outdoor performance loss rate in different PV technologies and comparison with two other methods. <i>Solar Energy</i> , 2015, 117, 139-152.	6.1	48
67	Impact of PMUs on state estimation accuracy in active distribution grids with large PV penetration. , 2015, , .		9
68	Experimental investigation of a low cost passive strategy to improve the performance of Building Integrated Photovoltaic systems. <i>Solar Energy</i> , 2015, 111, 288-296.	6.1	28
69	Filtering Procedures for Reliable Outdoor Temperature Coefficients in Different Photovoltaic Technologies. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2014, 136, .	1.8	19
70	Sun Tracker Performance Analysis for Different Solar Module Technologies in an Alpine Environment. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2014, 136, .	1.8	6
71	Vehicle-integrated Photovoltaic (ViPV) systems: Energy production, Diesel Equivalent, Payback Time; an assessment screening for trucks and busses. , 2014, , .		6
72	BiPV System Performance and Efficiency Drops: Overview on PV Module Temperature Conditions of Different Module Types. <i>Energy Procedia</i> , 2014, 48, 1311-1319.	1.8	60

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73	The PV Potential of South Tyrol: An Intelligent Use of Space. Energy Procedia, 2014, 57, 1392-1400.	1.8	12
74	Wind Effect on PV Module Temperature: Analysis of Different Techniques for an Accurate Estimation. Energy Procedia, 2013, 40, 77-86.	1.8	205
75	A Round Robin Test exercise on hydrogen absorption/desorption properties of a magnesium hydride based material. International Journal of Hydrogen Energy, 2013, 38, 6704-6717.	7.1	41
76	Low frequency sound propagation in activated carbon. Journal of the Acoustical Society of America, 2012, 132, 239-248.	1.1	21
77	In situ powder neutron diffraction study of non-stoichiometric phase formation during the hydrogenation of Li <sub>3</sub> N. Faraday Discussions, 2011, 151, 263.	3.2	12
78	Investigation of Counterion Influence on an Octahedral IrH <sub>6</sub> -Complex in the Solid State Hydrides AAeIrH <sub>6</sub> (A = Na, K and Ae = Ca, Sr, Ba, and Eu) with a New Structure Type. Inorganic Chemistry, 2011, 50, 11890-11895.	4.0	8
79	Hardness determination of bio-ceramics using Laser-Induced Breakdown Spectroscopy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2011, 66, 290-294.	2.9	53
80	The pressure-temperature phase diagram of MgH <sub>2</sub> and isotopic substitution. Journal of Physics Condensed Matter, 2011, 23, 305403.	1.8	16
81	In situ neutron diffraction measurement of the pressure-temperature evolution of a MgD <sub>2</sub> :TiD <sub>2</sub> mixture. High Pressure Research, 2010, 30, 643-652.	1.2	8
82	A series of BaAl <sub>2</sub> xSixH <sub>2</sub> x (0.4 < x < 1.6) hydrides with compositions and structures in between BaSi <sub>2</sub> and BaAl <sub>2</sub> H <sub>2</sub> . Journal of Alloys and Compounds, 2010, 505, 1-5.	5.5	13
83	Structure and stability of high pressure synthesized Mg-TM hydrides (TM = Ti, Zr, Hf, V, Nb and Ta) as possible new hydrogen rich hydrides for hydrogen storage. Journal of Materials Chemistry, 2009, 19, 8150.	6.7	77
84	Crystal structure, electronic structure, and vibrational properties of $MAlSiH$	3.2	24
85	Vibrational Properties of Polyanionic Hydrides SrAl <sub>2</sub> H <sub>2</sub> and SrAlSiH: New Insights into Al-H Bonding Interactions. Inorganic Chemistry, 2007, 46, 6987-6991.	4.0	20