Karsten von Maydell

List of Publications by Year
in descending order

57	674	687363	580821
papers	citations	13	25
		h-index	g-index

61	61	61	1027
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Photo‐induced Charge Transfer and Relaxation of Persistent Charge Carriers in Polymer/Nanocrystal Composites for Applications in Hybrid Solar Cells. Advanced Functional Materials, 2009, 19, 3788-3795.	14.9	96
2	ITO-free inverted polymer solar cells with ZnO:Al cathodes and stable top anodes. Solar Energy Materials and Solar Cells, 2012, 98, 52-56.	6.2	44
3	AZO-Ag-AZO transparent electrode for amorphous silicon solar cells. Thin Solid Films, 2014, 558, 294-297.	1.8	44
4	Ultrathin Resonant‐Cavity‐Enhanced Solar Cells with Amorphous Germanium Absorbers. Advanced Optical Materials, 2015, 3, 182-186.	7.3	42
5	ZnO Nanorods with Broadband Antireflective Properties for Improved Light Management in Silicon Thin‐Film Solar Cells. Advanced Optical Materials, 2014, 2, 94-99.	7.3	39
6	ZnO nanorod arrays as light trapping structures in amorphous silicon thin-film solar cells. Solar Energy Materials and Solar Cells, 2014, 125, 305-309.	6.2	38
7	Semitransparent Polymer-Based Solar Cells with Aluminum-Doped Zinc Oxide Electrodes. ACS Applied Materials & Interfaces, 2015, 7, 287-300.	8.0	36
8	Enhanced passivation at amorphous/crystalline silicon interface and suppressed Schottky barrier by deposition of microcrystalline silicon emitter layer in silicon heterojunction solar cells. Applied Physics Letters, 2014, 104, .	3.3	34
9	DC‐sputtered ZnO:Al as transparent conductive oxide for silicon heterojunction solar cells with µc‐Si:H emitter. Progress in Photovoltaics: Research and Applications, 2015, 23, 1340-1352.	8.1	31
10	Three dimensional optical modeling of amorphous silicon thin film solar cells using the finite-difference time-domain method including real randomly surface topographies. Journal of Applied Physics, 2011, 110, 023102.	2.5	30
11	A Machine Learning Approach to Low-Cost Photovoltaic Power Prediction Based on Publicly Available Weather Reports. Energies, 2020, 13, 735.	3.1	27
12	Comparison of Ag and SiO_2 Nanoparticles for Light Trapping Applications in Silicon Thin Film Solar Cells. Journal of Physical Chemistry Letters, 2014, 5, 3302-3306.	4.6	15
13	Cost-effective nanostructured thin-film solar cell with enhanced absorption. Applied Physics Letters, 2014, 105, .	3.3	14
14	Adaptive Online-Learning Volt-Var Control for Smart Inverters Using Deep Reinforcement Learning. Energies, 2021, 14, 1991.	3.1	14
15	Effect of EV Movement Schedule and Machine Learning-Based Load Forecasting on Electricity Cost of a Single Household. Energies, 2018, 11, 2913.	3.1	13
16	Optimised curtailment of distributed generators for the provision of congestion management services considering discrete controllability. IET Generation, Transmission and Distribution, 2020, 14, 735-744.	2.5	13
17	A simulation study towards a new concept for realization of thin film triple junction solar cells based on group IV elements. Progress in Photovoltaics: Research and Applications, 2012, 20, 74-81.	8.1	12
18	Simulation of Incidental Distributed Generation Curtailment to Maximize the Integration of Renewable Energy Generation in Power Systems. Energies, 2020, 13, 4173.	3.1	11

#	Article	IF	Citations
19	A non-intrusive load monitoring approach for very short-term power predictions in commercial buildings. Applied Energy, 2021, 292, 116860.	10.1	11
20	Forecast of Renewable Curtailment in Distribution Grids Considering Uncertainties. IEEE Access, 2021, 9, 60828-60840.	4.2	9
21	Correlation between optical emission spectroscopy of hydrogen/germane plasma and the Raman crystallinity factor of germanium layers. Applied Physics Letters, 2013, 102, 152109.	3.3	8
22	Optimizing Folded Silicon Thin-Film Solar Cells on ZnO Honeycomb Electrodes. IEEE Journal of Photovoltaics, 2015, 5, 479-486.	2.5	8
23	Laser perforated ultrathin metal films for transparent electrode applications. Optics Express, 2015, 23, A254.	3.4	8
24	Business case analysis of hybrid systems consisting of battery storage and power-to-heat on the German energy market. Utilities Policy, 2020, 67, 101110.	4.0	8
25	Energy forecast for mobile photovoltaic systems with focus on trucks for cooling applications. Progress in Photovoltaics: Research and Applications, 2017, 25, 525-532.	8.1	6
26	Simulation of vertical power flow at MV/HV transformers for quantification of curtailed renewable power. IET Renewable Power Generation, 2019, 13, 3071-3079.	3.1	6
27	Sustainable Residential Energy Supply: A Literature Review-Based Morphological Analysis. Energies, 2020, 13, 432.	3.1	6
28	Monte-Carlo Evaluation of Residential Energy System Morphologies Applying Device Agnostic Energy Management. IEEE Access, 2022, 10, 7460-7475.	4.2	6
29	Comparison of silicon oxide and silicon carbide absorber materials in silicon thin-film solar cells. EPJ Photovoltaics, 2015, 6, 65302.	1.6	5
30	Thin metal layer as transparent electrode in n-i-p amorphous silicon solar cells. EPJ Photovoltaics, 2014, 5, 55205.	1.6	4
31	Numerical 3D-Simulation of Micromorph Silicon Thin Film Solar Cells. Materials Research Society Symposia Proceedings, 2011, 1321, 273.	0.1	3
32	Determination of the Required Power Response of Inverters to Provide Fast Frequency Support in Power Systems with Low Synchronous Inertia. Energies, 2020, 13, 816.	3.1	3
33	Combined PV Power and Load Prediction for Building-Level Energy Management Applications. , 2020, , .		3
34	Voltage-Based Load Recognition in Low Voltage Distribution Grids with Deep Learning. Energies, 2022, 15, 104.	3.1	3
35	Optical modeling of thin film silicon solar cells by combination of the transfer-matrix method and the Raytracer algorithm. Proceedings of SPIE, 2012, , .	0.8	2
36	Amorphous Silicon Oxinitride in Silicon Thin-film Solar Cells. Energy Procedia, 2014, 44, 203-208.	1.8	2

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37	Effect of the Vertical Transportation Component of the TCO Layer on the Electrical Properties of Silicon Heterojunction Solar Cells. IEEE Journal of Photovoltaics, 2014, 4, 859-865.	2.5	2
38	Are standard load profiles suitable for modern electricity grid models?. , 2020, , .		2
39	A Forecast-Based Load Management Approach for Commercial Buildings Demonstrated on an Integration of BEV. Energies, 2021, 14, 3576.	3.1	2
40	Interdependence of charging infrastructure and battery demand of light electric 3-wheel motor taxis. , 2020, , .		2
41	Optimal Power Dispatch in Energy Systems Considering Grid Constraints. Energies, 2022, 15, 192.	3.1	2
42	Planning, Optimisation and Evaluation of Small Power-to-Gas-to-Power Systems: Case Study of a German Dairy. Sustainability, 2022, 14, 6050.	3.2	2
43	Highly Transparent AZO/Ag/AZO Multilayer Front Contact for n-i-p Silicon Thin-Film Solar Cells. Materials Research Society Symposia Proceedings, 2012, 1426, 93-98.	0.1	1
44	Study of Surface Passivation of CZ c-Si by PECVD a-Si:H Films; A Comparison Between Quasi-Steady-State and Transient Photoconductance Decay Measurement. Materials Research Society Symposia Proceedings, 2013, 1536, 1.	0.1	1
45	Effects of process parameters onÎ¼c - Si1 â¯ XGeX:H solar cells performance and material properties. EPJ Photovoltaics, 2015, 6, 65301.	1.6	1
46	Multi-unit Japanese auction for device agnostic energy management. International Journal of Electrical Power and Energy Systems, 2022, 136, 107350.	5.5	1
47	Simultaneous optimization of temperature and energy in linear energy system models. , 2022, , .		1
48	Investigation on Nanorod TCO Light-trapping for a-Si:H Solar Cells in Superstrate Configuration. Materials Research Society Symposia Proceedings, 2012, 1426, 111-116.	0.1	0
49	Computational investigation of silicon thin-film solar cells with grating structures fabricated by holographic lithography. Proceedings of SPIE, 2012, , .	0.8	0
50	Simulation of single-junction thin-film silicon solar cells with varying intrinsic layer thickness. , 2012, , .		0
51	Laser textured substrates for light in-coupling in thin-film solar cells. , 2014, , .		0
52	Load predictions: vulnerability of microâ€grids based on renewable energies due to increasing population and individual demand. IET Renewable Power Generation, 2020, 14, 1312-1320.	3.1	0
53	Technology Pathways and Economic Analysis for Transforming High Temperature to Low Temperature District Heating Systems. Energies, 2021, 14, 3218.	3.1	0
54	Integration and Dimensioning of Battery Storage Systems in Commercial Building Applications with Renewable Powerplants and Battery Electric Vehicles. , 2021, , .		0

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55	Technical and economic analysis of curative actions in distribution networks utilizing battery energy storage systems. IET Generation, Transmission and Distribution, 2022, 16, 724-736.	2.5	0
56	Deduction of Optimal Control Strategies for a Sector-Coupled District Energy System. Energies, 2021, 14, 7257.	3.1	0
57	Application of Open Source Models and Data Sets for Energy System Research: (User) Experiences from Ongoing and Completed Projects. , 2022, , .		0