Martin Robinius

List of Publications by Year
in descending order

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79 papers	5,875 citations	81743 39 h-index	74018 75 g-index
92 all docs	92 docs citations	92 times ranked	4879 citing authors

#	Article	IF	Citations
1	Downscaling of future national capacity scenarios of the French electricity system to the regional level. Energy Systems, 2022, 13, 137-165.	1.8	1
2	High-resolution large-scale onshore wind energy assessments: A review of potential definitions, methodologies and future research needs. Renewable Energy, 2022, 182, 659-684.	4.3	82
3	The potential of deep learning to reduce complexity in energy system modeling. International Journal of Energy Research, 2022, 46, 4550-4571.	2.2	4
4	Ecological assessment of fuel cell electric vehicles with special focus on type IV carbon fiber hydrogen tank. Journal of Cleaner Production, 2021, 278, 123277.	4.6	53
5	The development of stationary battery storage systems in Germany â€“ status 2020. Journal of Energy Storage, 2021, 33, 101982.	3.9	49
6	Future Power Train Solutions for Long-Haul Trucks. Sustainability, 2021, 13, 2225.	1.6	14
7	Combining the worlds of energy systems and material flow analysis: a review. Energy, Sustainability and Society, 2021, 11, .	1.7	20
8	Hydrogen Road Transport Analysis in the Energy System: A Case Study for Germany through 2050. Energies, 2021, 14, 3166.	1.6	31
9	Hybrid Hydrogen Home Storage for Decentralized Energy Autonomy. International Journal of Hydrogen Energy, 2021, 46, 21748-21763.	3.8	34
10	Power-to-Ships: Future electricity and hydrogen demands for shipping on the Atlantic coast of Europe in 2050. Energy, 2021, 228, 120660.	4.5	35
11	Potential of green ammonia production in India. International Journal of Hydrogen Energy, 2021, 46, 27247-27267.	3.8	40
12	The Potential of Variable Renewable Energy Sources in Mexico: A Temporally Evaluated and Geospatially Constrained Techno-Economical Assessment. Energies, 2021, 14, 5779.	1.6	6
13	Introducing the Open Energy Ontology: Enhancing data interpretation and interfacing in energy systems analysis. Energy and AI, 2021, 5, 100074.	5.8	29
14	A modeler's guide to handle complexity in energy systems optimization. Advances in Applied Energy, 2021, 4, 100063.	6.6	63
15	Robust design of a future 100% renewable european energy supply system with hydrogen infrastructure. International Journal of Hydrogen Energy, 2021, 46, 29376-29390.	3.8	62
16	Uniformly constrained land eligibility for onshore European wind power. Renewable Energy, 2020, 146, 921-931.	4.3	28
17	CO2 emission reduction in the cement industry by using a solar calciner. Renewable Energy, 2020, 145, 1578-1596.	4.3	77
18	The curious case of the conflicting roles of hydrogen in global energy scenarios. Sustainable Energy and Fuels, 2020, 4, 80-95.	2.5	77

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19	Bottom-up energy supply optimization of a national building stock. Energy and Buildings, 2020, 209, 109667.	3.1	24
20	Geospatial modelling of the hydrogen infrastructure in France in order to identify the most suited supply chains. International Journal of Hydrogen Energy, 2020, 45, 3053-3072.	3.8	44
21	A techno-economic perspective on solar-to-hydrogen concepts through 2025. Sustainable Energy and Fuels, 2020, 4, 5818-5834.	2.5	27
22	On the Curtailments of Variable Renewable Energy Sources in Europe and the Role of Load Shifting. , 2020, , .		1
23	On the socio-technical potential for onshore wind in Europe: A response to Enevoldsen et al. (2019), Energy Policy, 132, 1092-1100. Energy Policy, 2020, 145, 111693.	4.2	11
24	Integration of Large-Scale Variable Renewable Energy Sources into the Future European Power System: On the Curtailment Challenge. Energies, 2020, 13, 5490.	1.6	12
25	Clean mobility infrastructure and sector integration in long-term energy scenarios: The case of Italy. Renewable and Sustainable Energy Reviews, 2020, 133, 110086.	8.2	15
26	The development of stationary battery storage systems in Germany â€“ AÂmarket review. Journal of Energy Storage, 2020, 29, 101153.	3.9	148
27	Extreme events in time series aggregation: A case study for optimal residential energy supply systems. Applied Energy, 2020, 275, 115223.	5.1	23
28	A Review on Time Series Aggregation Methods for Energy System Models. Energies, 2020, 13, 641.	1.6	100
29	Technical potential of salt caverns for hydrogen storage in Europe. International Journal of Hydrogen Energy, 2020, 45, 6793-6805.	3.8	262
30	Options of natural gas pipeline reassignment for hydrogen: Cost assessment for a Germany case study. International Journal of Hydrogen Energy, 2020, 45, 12095-12107.	3.8	120
31	Optimized electrolyzer operation: Employing forecasts of wind energy availability, hydrogen demand, and electricity prices. International Journal of Hydrogen Energy, 2019, 44, 4387-4397.	3.8	49
32	Architectural Concept and Evaluation of a Framework for the Efficient Automation of Computational Scientific Workflows: An Energy Systems Analysis Example. Applied Sciences (Switzerland), 2019, 9, 728.	1.3	5
33	Reducing Computational Load for Mixed Integer Linear Programming: An Example for a District and an Island Energy System. Energies, 2019, 12, 2825.	1.6	14
34	The techno-economic potential of offshore wind energy with optimized future turbine designs in Europe. Applied Energy, 2019, 255, 113794.	5.1	51
35	Impact of different weather years on the design of hydrogen supply pathways for transport needs. International Journal of Hydrogen Energy, 2019, 44, 25442-25456.	3.8	15
36	Techno-economic analysis of a potential energy trading link between Patagonia and Japan based on CO2 free hydrogen. International Journal of Hydrogen Energy, 2019, 44, 12733-12747.	3.8	103

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37	Solar hydrogen production: a bottom-up analysis of different photovoltaicâ€“electrolysis pathways. Sustainable Energy and Fuels, 2019, 3, 801-813.	2.5	39
38	The future of European onshore wind energy potential: Detailed distribution and simulation of advanced turbine designs. Energy, 2019, 182, 1222-1238.	4.5	69
39	A hydrogen supply chain with spatial resolution: Comparative analysis of infrastructure technologies in Germany. Applied Energy, 2019, 247, 438-453.	5.1	148
40	Flexible sector coupling with hydrogen: A climate-friendly fuel supply for road transport. International Journal of Hydrogen Energy, 2019, 44, 12918-12930.	3.8	60
41	Robust optimal discrete arc sizing for tree-shaped potential networks. Computational Optimization and Applications, 2019, 73, 791-819.	0.9	17
42	Locating experts and carving out the state of the art: A systematic review on Industry 4.0 and energy system analysis. International Journal of Energy Research, 2019, 43, 3981-4002.	2.2	6
43	Incentives and legal barriers for power-to-hydrogen pathways: An internationalÂsnapshot. International Journal of Hydrogen Energy, 2019, 44, 11394-11401.	3.8	58
44	Role of electricity interconnections and impact of the geographical scale on the French potential of producing hydrogen via electricity surplus by 2035. Energy, 2019, 172, 977-990.	4.5	29
45	Cost Uncertainties in Energy System Optimization Models: A Quadratic Programming Approach for Avoiding Penny Switching Effects. Energies, 2019, 12, 4006.	1.6	14
46	Modeling hydrogen networks for future energy systems: A comparison of linear and nonlinear approaches. International Journal of Hydrogen Energy, 2019, 44, 32136-32150.	3.8	22
47	Generating Transparency in the Worldwide Use of the Terminology Industry 4.0. Applied Sciences (Switzerland), 2019, 9, 4659.	1.3	7
48	Future Hydrogen Markets for Transportation and Industry: The Impact of CO2 Taxes. Energies, 2019, 12, 4707.	1.6	32
49	Design and evaluation of hydrogen electricity reconversion pathways in national energy systems using spatially and temporally resolved energy system optimization. International Journal of Hydrogen Energy, 2019, 44, 9594-9607.	3.8	43
50	PEM water electrolysis: Innovative approaches towards catalyst separation, recovery and recycling. International Journal of Hydrogen Energy, 2019, 44, 3450-3455.	3.8	54
51	Direct or indirect electrification? A review of heat generation and road transport decarbonisation scenarios for Germany 2050. Energy, 2019, 166, 989-999.	4.5	91
52	Time series aggregation for energy system design: Modeling seasonal storage. Applied Energy, 2018, 213, 123-135.	5.1	141
53	Impact of different time series aggregation methods on optimal energy system design. Renewable Energy, 2018, 117, 474-487.	4.3	192
54	Effect of cascade storage system topology on the cooling energy consumption in fueling stations for hydrogen vehicles. International Journal of Hydrogen Energy, 2018, 43, 6256-6265.	3.8	40

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55	The investment costs of electrolysis â€“ A comparison of cost studies from the past 30 years. International Journal of Hydrogen Energy, 2018, 43, 1209-1223.	3.8	305
56	Power-to-Gas: Electrolyzers as an alternative to network expansion â€“ An example from a distribution system operator. Applied Energy, 2018, 210, 182-197.	5.1	77
57	Control techniques and the modeling of electrical power flow across transmission networks. Renewable and Sustainable Energy Reviews, 2018, 82, 3452-3467.	8.2	16
58	Emergency power supply from photovoltaic battery systems in private households in case of a blackout â€“ A scenario analysis. Energy Procedia, 2018, 155, 165-178.	1.8	8
59	Flexible Demand for Higher Integration of Renewables into the European Power System. , 2018, , .		4
60	Comparison of light-duty transportation fuels produced from renewable hydrogen and green carbon dioxide. Applied Energy, 2018, 231, 757-767.	5.1	79
61	Spatio-temporal optimization of a future energy system for power-to-hydrogen applications in Germany. Energy, 2018, 158, 1130-1149.	4.5	159
62	An option for stranded renewables: electrolytic-hydrogen in future energy systems. Sustainable Energy and Fuels, 2018, 2, 1500-1515.	2.5	27
63	Life Cycle Assessment of hydrogen transport and distribution options. Journal of Cleaner Production, 2018, 199, 431-443.	4.6	94
64	Evaluating Land Eligibility Constraints of Renewable Energy Sources in Europe. Energies, 2018, 11, 1246.	1.6	50
65	Carsharing with fuel cell vehicles: Sizing hydrogen refueling stations based on refueling behavior. Applied Energy, 2018, 228, 1540-1549.	5.1	68
66	The Future of Fossil Fired Power Plants in Germanyâ€”A Lifetime Analysis. Energies, 2018, 11, 1616.	1.6	15
67	A Generic and Highly Scalable Framework for the Automation and Execution of Scientific Data Processing and Simulation Workflows. , 2018, , .		3
68	A review of current challenges and trends in energy systems modeling. Renewable and Sustainable Energy Reviews, 2018, 96, 156-166.	8.2	181
69	Long-term power-to-gas potential from wind and solar power: A country analysis for Italy. International Journal of Hydrogen Energy, 2017, 42, 13389-13406.	3.8	95
70	Seasonal storage and alternative carriers: A flexible hydrogen supply chain model. Applied Energy, 2017, 200, 290-302.	5.1	423
71	Power-to-hydrogen and hydrogen-to-X: Which markets? Which economic potential? Answers from the literature. , 2017, , .		5
72	A Review of Post-combustion CO2 Capture Technologies from Coal-fired Power Plants. Energy Procedia, 2017, 114, 650-665.	1.8	342

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73	Investigation of the Cooling System of a Membrane-based Post-combustion Process. Energy Procedia, 2017, 114, 666-685.	1.8	2
74	Early power to gas applications: Reducing wind farm forecast errors and providing secondary control reserve. Applied Energy, 2017, 192, 551-562.	5.1	55
75	A Top-Down Spatially Resolved Electrical Load Model. Energies, 2017, 10, 361.	1.6	19
76	Power-to-Steel: Reducing CO2 through the Integration of Renewable Energy and Hydrogen into the German Steel Industry. Energies, 2017, 10, 451.	1.6	162
77	Linking the Power and Transport Sectorsâ€"Part 1: The Principle of Sector Coupling. Energies, 2017, 10, 956.	1.6	141
78	Linking the Power and Transport Sectorsâ€"Part 2: Modelling a Sector Coupling Scenario for Germany. Energies, 2017, 10, 957.	1.6	98
79	Power to gas: Technological overview, systems analysis and economic assessment for a case study in Germany. International Journal of Hydrogen Energy, 2015, 40, 4285-4294.	3.8	629