

Roland Peters

List of Publications by Year in descending order

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Version: 2024-02-01

45
papers

1,101
citations

361413

20
h-index

395702

33
g-index

45
all docs

45
docs citations

45
times ranked

801
citing authors

#	ARTICLE	IF	CITATIONS
1	SOFC stack performance under high fuel utilization. International Journal of Hydrogen Energy, 2015, 40, 1128-1136.	7.1	111
2	Analysis of solid oxide fuel cell system concepts with anode recycling. International Journal of Hydrogen Energy, 2013, 38, 6809-6820.	7.1	85
3	Efficiency analysis of a hydrogen-fueled solid oxide fuel cell system with anode off-gas recirculation. Journal of Power Sources, 2016, 328, 105-113.	7.8	83
4	Investigation of solid oxide fuel cell sealing behavior under stack relevant conditions at Forschungszentrum Jülich. Journal of Power Sources, 2011, 196, 7175-7181.	7.8	82
5	Solid oxide fuel cell operating on liquid organic hydrogen carrier-based hydrogen " making full use of heat integration potentials. International Journal of Hydrogen Energy, 2018, 43, 1758-1768.	7.1	62
6	SOFC Stack and System Development at Forschungszentrum Jülich. Journal of the Electrochemical Society, 2015, 162, F1199-F1205.	2.9	58
7	Bypassing renewable variability with a reversible solid oxide cell plant. Applied Energy, 2018, 217, 101-112.	10.1	58
8	Comparison of efficiencies of low, mean and high temperature fuel cell Systems. International Journal of Hydrogen Energy, 2011, 36, 11056-11067.	7.1	55
9	A solid oxide fuel cell operating on liquid organic hydrogen carrier-based hydrogen " A kinetic model of the hydrogen release unit and system performance. International Journal of Hydrogen Energy, 2019, 44, 13794-13806.	7.1	47
10	Influence of operating parameters on overall system efficiencies using solid oxide electrolysis technology. International Journal of Hydrogen Energy, 2015, 40, 7103-7113.	7.1	41
11	Numerical modelling and experimental validation of a planar type pre-reformer in SOFC technology. International Journal of Hydrogen Energy, 2009, 34, 6425-6436.	7.1	37
12	Comparison of a fuel-driven and steam-driven ejector in solid oxide fuel cell systems with anode off-gas recirculation: Part-load behavior. Journal of Power Sources, 2015, 277, 251-260.	7.8	33
13	3D coupled CFD/FEM modelling and experimental validation of a planar type air pre-heater used in SOFC technology. International Journal of Hydrogen Energy, 2011, 36, 6851-6861.	7.1	31
14	Methane/steam global reforming kinetics over the Ni/YSZ of planar pre-reformers for SOFC systems. Chemical Engineering Journal, 2016, 292, 113-122.	12.7	29
15	Study of the catalytic combustion of lean hydrogen-air mixtures in a monolith reactor. International Journal of Hydrogen Energy, 2018, 43, 17520-17530.	7.1	27
16	Overview on the Jülich SOFC Development Status. ECS Transactions, 2013, 57, 23-33.	0.5	24
17	Long-Term Experience with a 5/15kW-Class Reversible Solid Oxide Cell System. Journal of the Electrochemical Society, 2021, 168, 014508.	2.9	22
18	Operation Experience with a 20%kW SOFC System. Fuel Cells, 2014, 14, 489-499.	2.4	21

#	ARTICLE	IF	CITATIONS
19	Utilization of Bio-Syngas in Solid Oxide Fuel Cell Stacks: Effect of Hydrocarbon Reforming. Journal of the Electrochemical Society, 2019, 166, F137-F143.	2.9	21
20	Hierarchical 3D multiphysics modelling in the design and optimisation of SOFC system components. International Journal of Hydrogen Energy, 2011, 36, 4400-4408.	7.1	20
21	SOC Development at Forschungszentrum Jülich. ECS Transactions, 2017, 78, 1791-1804.	0.5	20
22	Analysis of a Solid Oxide Fuel Cell System with Low Temperature Anode Off-Gas Recirculation. Journal of the Electrochemical Society, 2015, 162, F982-F987.	2.9	19
23	Degradation Analysis of an SOFC Short Stack Subject to 10,000 h of Operation. Journal of the Electrochemical Society, 2020, 167, 144508.	2.9	17
24	Operational behavior and reforming kinetics over Ni/YSZ of a planar type pre-reformer for SOFC systems. International Journal of Hydrogen Energy, 2014, 39, 7131-7141.	7.1	11
25	Development and Test of a Solid Oxide Fuel Cell Subsystem with a Low Temperature Anode Off-Gas Recirculation. ECS Transactions, 2017, 78, 2489-2495.	0.5	11
26	Status of Light Weight Cassette Design of SOFC. ECS Transactions, 2015, 68, 209-220.	0.5	10
27	Behavior of Metallic Components During 4,000h Operation of an SOFC Stack with Carbon Containing Fuel Gas. Fuel Cells, 2016, 16, 600-610.	2.4	10
28	Design and Optimisation of SOFC System Components using a Trio Approach: Measurements, Design of Experiments, and 3D Computational Fluid Dynamics. ECS Transactions, 2009, 25, 1195-1200.	0.5	7
29	Development and Testing of a 5kW-Class Reversible Solid Oxide Cell System. ECS Transactions, 2019, 91, 2495-2506.	0.5	7
30	Recent Developments in 3D Multiphysics Modelling of Whole Fuel Cell Systems for Assisting Commercialisation and Improved Reliability. ECS Transactions, 2017, 75, 15-22.	0.5	6
31	Forschungszentrum Jülich â€“ Progress in SOC Development. ECS Transactions, 2019, 91, 2443-2453.	0.5	6
32	Recent Developments of 3D Coupled Multiphysics SOFC Modelling At Forschungszentrum Julich. ECS Transactions, 2013, 57, 2537-2541.	0.5	5
33	Forschungszentrum Jülich â€“ Current Activities in SOC Development. ECS Transactions, 2021, 103, 299-305.	0.5	5
34	3D Multiscale-Multiphysics SOFC Modelling Status at the Institute of Electrochemical Process Engineering, FZ Julich. ECS Transactions, 2015, 68, 2861-2866.	0.5	4
35	Development of a 10/40kW-Class Reversible Solid Oxide Cell System at Forschungszentrum Jülich. ECS Transactions, 2021, 103, 289-297.	0.5	4
36	Modeling of Reversible Solid Oxide Cell Stacks with an Open-Source Library. ECS Transactions, 2021, 103, 569-580.	0.5	3

#	ARTICLE	IF	CITATIONS
37	A methodological contribution to failure prediction of glass ceramics sealings in high-temperature solid oxide fuel cell stacks. Journal of Power Sources, 2021, 507, 230301.	7.8	3
38	3D Multiphysics Modelling and Design Optimisation of a Complete SOFC System Operating in Julich. ECS Transactions, 2014, 64, 155-159.	0.5	2
39	An On-Demand Safety Gas Generator for Solid Oxide Fuel Cell and Electrolyzer Systems. Fuel Cells, 2017, 17, 882-889.	2.4	2
40	Experimental Investigation of Efficiency Maximization in Solid Oxide Electrolysis Systems by Internal Steam and Heat Recovery. ECS Transactions, 2021, 103, 555-560.	0.5	2
41	Development of a 10/40kW-Class Reversible Solid Oxide Cell System at Forschungszentrum Jülich. ECS Meeting Abstracts, 2021, MA2021-03, 195-195.	0.0	0
42	Experimental Investigation of Efficiency Maximization in Solid Oxide Electrolysis Systems by Internal Steam and Heat Recovery. ECS Meeting Abstracts, 2021, MA2021-03, 221-221.	0.0	0
43	Modeling of Reversible Solid Oxide Cell Stacks with an Open-Source Library. ECS Meeting Abstracts, 2021, MA2021-03, 224-224.	0.0	0
44	SOC Development at Forschungszentrum Jülich. ECS Meeting Abstracts, 2017, , .	0.0	0
45	Development and Test of a Solid Oxide Fuel Cell Subsystem with a Low Temperature Anode Off-Gas Recirculation. ECS Meeting Abstracts, 2017, , .	0.0	0