

# 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	Long-Term Experience with a 5/15kW-Class Reversible Solid Oxide Cell System. Journal of the Electrochemical Society, 2021, 168, 014508.	2.9	22
2	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
3	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
4	Development of a 10/40kW-Class Reversible Solid Oxide Cell System at Forschungszentrum Jülich. ECS Transactions, 2021, 103, 289-297.	0.5	4
5	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
6	Forschungszentrum Jülich " Current Activities in SOC Development. ECS Transactions, 2021, 103, 299-305.	0.5	5
7	Modeling of Reversible Solid Oxide Cell Stacks with an Open-Source Library. ECS Meeting Abstracts, 2021, MA2021-03, 224-224.	0.0	0
8	Modeling of Reversible Solid Oxide Cell Stacks with an Open-Source Library. ECS Transactions, 2021, 103, 569-580.	0.5	3
9	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
10	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
11	Forschungszentrum Jülich " Progress in SOC Development. ECS Transactions, 2019, 91, 2443-2453.	0.5	6
12	Development and Testing of a 5kW-Class Reversible Solid Oxide Cell System. ECS Transactions, 2019, 91, 2495-2506.	0.5	7
13	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
14	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
15	Bypassing renewable variability with a reversible solid oxide cell plant. Applied Energy, 2018, 217, 101-112.	10.1	58
16	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
17	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
18	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

#	ARTICLE	IF	CITATIONS
19	SOC Development at Forschungszentrum Jülich. ECS Transactions, 2017, 78, 1791-1804.	0.5	20
20	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
21	An On-Demand Safety Gas Generator for Solid Oxide Fuel Cell and Electrolyzer Systems. Fuel Cells, 2017, 17, 882-889.	2.4	2
22	SOC Development at Forschungszentrum Jülich. ECS Meeting Abstracts, 2017, , .	0.0	0
23	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
24	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
25	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
26	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
27	Status of Light Weight Cassette Design of SOFC. ECS Transactions, 2015, 68, 209-220.	0.5	10
28	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
29	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
30	3D Multiscale-Multiphysics SOFC Modelling Status at the Institute of Electrochemical Process Engineering, FZ Julich. ECS Transactions, 2015, 68, 2861-2866.	0.5	4
31	SOFC Stack and System Development at Forschungszentrum Jülich. Journal of the Electrochemical Society, 2015, 162, F1199-F1205.	2.9	58
32	SOFC stack performance under high fuel utilization. International Journal of Hydrogen Energy, 2015, 40, 1128-1136.	7.1	111
33	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
34	3D Multiphysics Modelling and Design Optimisation of a Complete SOFC System Operating in Julich. ECS Transactions, 2014, 64, 155-159.	0.5	2
35	Operation Experience with a 20kW SOFC System. Fuel Cells, 2014, 14, 489-499.	2.4	21
36	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

#	ARTICLE	IF	CITATIONS
37	Analysis of solid oxide fuel cell system concepts with anode recycling. International Journal of Hydrogen Energy, 2013, 38, 6809-6820.	7.1	85
38	Recent Developments of 3D Coupled Multiphysics SOFC Modelling At Forschungszentrum Julich. ECS Transactions, 2013, 57, 2537-2541.	0.5	5
39	Overview on the Jülich SOFC Development Status. ECS Transactions, 2013, 57, 23-33.	0.5	24
40	Comparison of efficiencies of low, mean and high temperature fuel cell Systems. International Journal of Hydrogen Energy, 2011, 36, 11056-11067.	7.1	55
41	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
42	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
43	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
44	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
45	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