

Jakub Kupecki

List of Publications by Year in descending order

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46
papers

720
citations

566801

15
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552369

26
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48
all docs

48
docs citations

48
times ranked

516
citing authors

#	ARTICLE	IF	CITATIONS
1	Off-design analysis of a micro-CHP unit with solid oxide fuel cells fed by DME. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 12009-12022.	3.8	59
2	Numerical model of planar anode supported solid oxide fuel cell fed with fuel containing H ₂ S operated in direct internal reforming mode (DIR-SOFC). <i>Applied Energy</i> , 2018, 230, 1573-1584.	5.1	58
3	Experimental and numerical analysis of a serial connection of two SOFC stacks in a micro-CHP system fed by biogas. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 3487-3497.	3.8	57
4	Energy analysis of a 10 kW-class power-to-gas system based on a solid oxide electrolyzer (SOE). <i>Energy Conversion and Management</i> , 2019, 199, 111934.	4.4	50
5	Dynamic analysis of direct internal reforming in a SOFC stack with electrolyte-supported cells using a quasi-1D model. <i>Applied Energy</i> , 2018, 227, 198-205.	5.1	44
6	Hydrogen production in solid oxide electrolyzers coupled with nuclear reactors. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 35765-35776.	3.8	39
7	Dynamic modelling of reversible solid oxide cells for grid stabilization applications. <i>Energy Conversion and Management</i> , 2021, 228, 113674.	4.4	34
8	Dynamic numerical analysis of cross-, co-, and counter-current flow configuration of a 1 kW-class solid oxide fuel cell stack. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 15834-15844.	3.8	32
9	SOFC-based micro-CHP system as an example of efficient power generation unit. <i>Archives of Thermodynamics</i> , 2011, 32, 33-43.	1.0	26
10	Numerical analysis of an SOFC stack under loss of oxidant related fault conditions using a dynamic non-adiabatic model. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 21148-21161.	3.8	26
11	Characterization of a circular 80 mm anode supported solid oxide fuel cell (AS-SOFC) with anode support produced using high-pressure injection molding (HPIM). <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19405-19411.	3.8	25
12	ANN-supported control strategy for a solid oxide fuel cell working on demand for a public utility building. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 3555-3565.	3.8	22
13	Parametric evaluation of a micro-CHP unit with solid oxide fuel cells integrated with oxygen transport membranes. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 11633-11640.	3.8	19
14	Investigation of off-design characteristics of solid oxide electrolyser (SOE) operating in endothermic conditions. <i>Renewable Energy</i> , 2021, 170, 277-285.	4.3	19
15	Modeling and analysis of cross-flow solid oxide electrolysis cell with oxygen electrode/electrolyte interface oxygen pressure characteristics for hydrogen production. <i>Journal of Power Sources</i> , 2022, 529, 231248.	4.0	17
16	Analysis of H ₂ S-related short-term degradation and regeneration of anode- and electrolyte supported solid oxide fuel cells fueled with biomass steam gasifier product gas. <i>Energy</i> , 2021, 218, 119556.	4.5	16
17	Modeling and control-oriented thermal safety analysis for mode switching process of reversible solid oxide cell system. <i>Energy Conversion and Management</i> , 2022, 255, 115318.	4.4	16
18	Variant analysis of the efficiency of industrial scale power station based on DC-SOFCs and DC-MCFCs. <i>Energy</i> , 2018, 156, 292-298.	4.5	14

#	ARTICLE	IF	CITATIONS
19	Mathematical model of a plate fin heat exchanger operating under solid oxide fuel cell working conditions. Archives of Thermodynamics, 2013, 34, 3-21.	1.0	13
20	Analysis of a Micro-CHP Unit with in-series SOFC Stacks Fed by Biogas. Energy Procedia, 2015, 75, 2021-2026.	1.8	13
21	Comparative Study of Biogas and DME Fed Micro-CHP System with Solid Oxide Fuel Cell. Applied Mechanics and Materials, 0, 267, 53-56.	0.2	11
22	Analysis of Soot Deposition Mechanisms on Nickel-Based Anodes of SOFCs in Single-Cell and Stack Environment. Processes, 2020, 8, 1370.	1.3	11
23	Boosting solid oxide electrolyzer performance by fine tuning the microstructure of electrodes – Preliminary study. International Journal of Hydrogen Energy, 2023, 48, 26436-26445.	3.8	11
24	Real coupling of solid oxide fuel cells with a biomass steam gasifier: Operating boundaries considering performance, tar and carbon deposition analyses. Fuel, 2022, 316, 123310.	3.4	10
25	Investigation of SOFC material properties for plant-level modeling. Open Chemistry, 2013, 11, 664-671.	1.0	9
26	Dynamic Modelling of the Direct Internal Reforming (DIR) of Methane in 60-cell Stack with Electrolyte Supported Cells. Energy Procedia, 2017, 105, 1700-1705.	1.8	9
27	Multi-Level Mathematical Modeling of Solid Oxide Fuel Cells. , 2012, , .		7
28	Modeling Platform for a Micro-CHP System with SOFC Operating under Load Changes. Applied Mechanics and Materials, 0, 607, 205-208.	0.2	7
29	Analysis of nodalization effects on the prediction error of generalized finite element method used for dynamic modeling of hot water storage tank. Archives of Thermodynamics, 2015, 36, 123-138.	1.0	6
30	Computational fluid dynamics analysis of an innovative start-up method of high temperature fuel cells using dynamic 3d model. Polish Journal of Chemical Technology, 2017, 19, 67-73.	0.3	6
31	Kinetic model of a plate fin heat exchanger with catalytic coating as a steam reformer of methane, biogas, and dimethyl ether. International Journal of Energy Research, 2019, 43, 2930-2939.	2.2	6
32	Analysis of operation of a micro-cogenerator with two solid oxide fuel cells stacks for maintaining neutral water balance. Energy, 2018, 152, 888-895.	4.5	5
33	Preliminary Electrochemical Characterization of Anode Supported Solid Oxide Cell (AS-SOC) Produced in the Institute of Power Engineering Operated in Electrolysis Mode (SOEC). Archives of Thermodynamics, 2017, 38, 53-63.	1.0	4
34	Modeling the dynamic operation of a small fin plate heat exchanger – parametric analysis. Archives of Thermodynamics, 2015, 36, 85-103.	1.0	3
35	Model-Based Approach for Analysis of the Sensitivity of Planar SOEC to Selected Parameters. ECS Transactions, 2018, 83, 171-178.	0.3	3
36	Modelling of Physical, Chemical, and Material Properties of Solid Oxide Fuel Cells. Journal of Chemistry, 2015, 2015, 1-7.	0.9	2

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37	Preliminary Long-Term Experimental Characterization of a Solid Oxide Fuel Cell Operated in DIR-SOFC Mode. ECS Transactions, 2019, 91, 471-477.	0.3	2
38	Investigation of off-design characteristics of solid oxide electrolyser (SOE) operated in endothermic conditions. E3S Web of Conferences, 2019, 137, 01029.	0.2	2
39	Multilevel modeling of solid oxide electrolysis. , 2020, , 123-166.		2
40	Quantification of the Improvement of Performance of Solid Oxide Fuel Cell Using Chiller-Based Fuel Recirculation. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	1.4	2
41	Selected Aspects of Design, Construction, and Operation of SOFC-Based Micro-Combined Heat and Power Systems. Green Energy and Technology, 2018, , 205-231.	0.4	1
42	Effects of the Gas Velocity on Formation of the Carbon Deposits on Fuel Electrode of AS-SOFC. ECS Meeting Abstracts, 2017, , .	0.0	1
43	Influence of the Contamination of Fuel with Fly Ash Originating from Biomass Gasification on the Performance of the Anode-Supported SOFC. Energies, 2022, 15, 1469.	1.6	1
44	Efficient and Economically Favorable Co-Free Air Electrodes for Solid Oxide Cells. ECS Transactions, 2021, 103, 1497-1504.	0.3	0
45	Modeling of SOFC-Based Power Systems. Green Energy and Technology, 2018, , 143-162.	0.4	0
46	Profiled Anode Supported Solid Oxide Fuel Cells for Low Cost Stacks for Stationary Applications. ECS Meeting Abstracts, 2018, , .	0.0	0