

Pierluigi Leone

List of Publications by Year in descending order

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76
papers

2,828
citations

109321

35
h-index

175258

52
g-index

76
all docs

76
docs citations

76
times ranked

2898
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental investigation of direct internal reforming of biogas in solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 2463-2476.	7.1	132
2	Energy and economic analysis of a water scrubbing based biogas upgrading process for biomethane injection into the gas grid or use as transportation fuel. <i>Renewable Energy</i> , 2017, 102, 417-432.	8.9	119
3	Durability of anode supported Solid Oxides Fuel Cells (SOFC) under direct dry-reforming of methane. <i>Chemical Engineering Journal</i> , 2013, 220, 254-263.	12.7	118
4	Synthetic natural gas via integrated high-temperature electrolysis and methanation: Part I – Energy performance. <i>Journal of Energy Storage</i> , 2015, 1, 22-37.	8.1	114
5	A comparative assessment on hydrogen production from low- and high-temperature electrolysis. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 3523-3536.	7.1	103
6	Exergetic and exergoeconomic analysis of post-combustion CO ₂ capture using MEA-solvent chemical absorption. <i>Energy</i> , 2017, 130, 113-128.	8.8	94
7	Enhancing the Energy Efficiency of Wastewater Treatment Plants through Co-digestion and Fuel Cell Systems. <i>Frontiers in Environmental Science</i> , 2017, 5, .	3.3	87
8	Three-dimensional printed yttria-stabilized zirconia self-supported electrolytes for solid oxide fuel cell applications. <i>Journal of the European Ceramic Society</i> , 2019, 39, 9-16.	5.7	80
9	Thermoeconomic analysis of large solid oxide fuel cell plants: Atmospheric vs. pressurized performance. <i>Energy</i> , 2013, 55, 142-155.	8.8	77
10	Synthetic natural gas via integrated high-temperature electrolysis and methanation: Part II – Economic analysis. <i>Journal of Energy Storage</i> , 2015, 2, 64-79.	8.1	76
11	Reversible operation of solid oxide cells under electrolysis and fuel cell modes: Experimental study and model validation. <i>Chemical Engineering Journal</i> , 2015, 274, 143-155.	12.7	71
12	Greening the gas network – The need for modelling the distributed injection of alternative fuels. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 70, 266-286.	16.4	69
13	Design and optimization of a proton exchange membrane fuel cell CHP system for residential use. <i>Energy and Buildings</i> , 2014, 69, 381-393.	6.7	68
14	Microstructural and electrical characterization of Mn-Co spinel protective coatings for solid oxide cell interconnects. <i>Journal of the European Ceramic Society</i> , 2017, 37, 4781-4791.	5.7	66
15	Techno-economic and policy requirements for the market-entry of the fuel cell micro-CHP system in the residential sector. <i>Applied Energy</i> , 2015, 143, 370-382.	10.1	62
16	New glass and glass-ceramic sealants for planar solid oxide fuel cells. <i>Journal of the European Ceramic Society</i> , 2010, 30, 933-940.	5.7	60
17	Coupling and thermal integration of a solid oxide fuel cell with a magnesium hydride tank. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 4740-4747.	7.1	60
18	Direct steam generation in parabolic-trough collectors: A review about the technology and a thermo-economic analysis of a hybrid system. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 74, 453-473.	16.4	58

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19	Electrochemical performance of solid oxide fuel cell: Experimental study and calibrated model. Energy, 2018, 142, 932-943.	8.8	57
20	Experimental investigations of the microscopic features and polarization limiting factors of planar SOFCs with LSM and LSCF cathodes. Journal of Power Sources, 2008, 177, 111-122.	7.8	56
21	Green Synthetic Fuels: Renewable Routes for the Conversion of Non-Fossil Feedstocks into Gaseous Fuels and Their End Uses. Energies, 2020, 13, 420.	3.1	54
22	Methane-free biogas for direct feeding of solid oxide fuel cells. Journal of Power Sources, 2010, 195, 239-248.	7.8	53
23	Influence of electrolyte ageing on the Plasma Electrolytic Oxidation of aluminium. Surface and Coatings Technology, 2015, 269, 36-46.	4.8	52
24	Computer experimental analysis of the CHP performance of a 100kWe SOFC Field Unit by a factorial design. Journal of Power Sources, 2006, 156, 400-413.	7.8	51
25	Optimization of dry reforming of methane over Ni/YSZ anodes for solid oxide fuel cells. Journal of Power Sources, 2014, 245, 154-163.	7.8	51
26	Microstructural characterization of solid oxide fuel cell electrodes by image analysis technique. Journal of Power Sources, 2009, 194, 408-422.	7.8	50
27	The effect of heavy tars (toluene and naphthalene) on the electrochemical performance of an anode-supported SOFC running on bio-syngas. Renewable Energy, 2016, 99, 747-753.	8.9	50
28	Limiting factors for planar solid oxide fuel cells under different trace compound concentrations. Energy, 2016, 95, 67-78.	8.8	50
29	Advanced Methods of Solid Oxide Fuel Cell Modeling. Green Energy and Technology, 2011, . .	0.6	45
30	Bio-hydrogen production from organic wastes in a pilot plant reactor and its use in a SOFC. International Journal of Hydrogen Energy, 2011, 36, 7861-7865.	7.1	42
31	An electricity triangle for energy transition: Application to Italy. Applied Energy, 2020, 277, 115525.	10.1	42
32	Design of experiments for fitting regression models on the tubular SOFC CHP100kWe: Screening test, response surface analysis and optimization. International Journal of Hydrogen Energy, 2007, 32, 343-358.	7.1	39
33	Biogas from the organic fraction of municipal solid waste: Dealing with contaminants for a solid oxide fuel cell energy generator. Waste Management, 2014, 34, 2047-2056.	7.4	39
34	Electrical and gas networks coupling through hydrogen blending under increasing distributed photovoltaic generation. Applied Energy, 2021, 290, 116764.	10.1	39
35	Experimental study of dry reforming of biogas in a tubular anode-supported solid oxide fuel cell. International Journal of Hydrogen Energy, 2013, 38, 10559-10566.	7.1	37
36	Performance of a glass-ceramic sealant in a SOFC short stack. International Journal of Hydrogen Energy, 2013, 38, 588-596.	7.1	35

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37	A review of Nigerian energy access studies: The story told so far. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 120, 109646.	16.4	35
38	Operation of a solid oxide fuel cell under direct internal reforming of liquid fuels. <i>Chemical Engineering Journal</i> , 2012, 191, 349-355.	12.7	34
39	Experimental evaluation of the sensitivity to fuel utilization and air management on a 100kW SOFC system. <i>Journal of Power Sources</i> , 2007, 171, 155-168.	7.8	32
40	Performance and testing of joined Crofer22APU-glass-ceramic sealant-anode supported cell in SOFC relevant conditions. <i>Materials Letters</i> , 2011, 65, 1048-1052.	2.6	32
41	Impedance spectroscopy analysis inspired by evolutionary programming as a diagnostic tool for SOEC and SOFC. <i>Solid State Ionics</i> , 2016, 288, 307-310.	2.7	32
42	Design and Balance-of-Plant of a Demonstration Plant With a Solid Oxide Fuel Cell Fed by Biogas From Waste-Water and Exhaust Carbon Recycling for Algae Growth. <i>Journal of Fuel Cell Science and Technology</i> , 2014, 11, .	0.8	27
43	Non-stoichiometric methanation as strategy to overcome the limitations of green hydrogen injection into the natural gas grid. <i>Applied Energy</i> , 2022, 309, 118462.	10.1	24
44	Experimental Investigations and Modeling of Direct Internal Reforming of Biogases in Tubular Solid Oxide Fuel Cells. <i>Fuel Cells</i> , 2011, 11, 697-710.	2.4	22
45	Solar hydrogen from North Africa to Europe through greenstream: A simulation-based analysis of blending scenarios and production plant sizing. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 22618-22637.	7.1	21
46	Low emissions analysis platform model for renewable energy: Community-scale case studies in Nigeria. <i>Sustainable Cities and Society</i> , 2021, 67, 102750.	10.4	20
47	Biogas blending into the gas grid of a small municipality for the decarbonization of the heating sector. <i>Biomass and Bioenergy</i> , 2019, 127, 105295.	5.7	19
48	Thermodynamic Analysis of Coupling a SOEC in Electrolysis Mode with the Dimethyl Ether Synthesis. <i>Fuel Cells</i> , 2015, 15, 669-681.	2.4	18
49	Influence of the microstructure on the catalytic properties of SOFC anodes under dry reforming of methane. <i>Materials Letters</i> , 2016, 164, 312-315.	2.6	17
50	Experimental Analysis of the Voltage and Temperature Behavior of a Solid Oxide Fuel Cell Generator. <i>Journal of Fuel Cell Science and Technology</i> , 2007, 4, 143-153.	0.8	15
51	Experimental evaluation of the operating temperature impact on solid oxide anode-supported fuel cells. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 3167-3172.	7.1	15
52	Demonstration of the integrated rural energy planning framework for sustainable energy development in low-income countries: Case studies of rural communities in Nigeria. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 144, 110983.	16.4	14
53	Analysis of the thermal field of a seal-less planar solid oxide fuel cell. <i>Journal of Power Sources</i> , 2012, 204, 100-105.	7.8	13
54	Model-based analysis of thermal energy storage for multiple temperature level heat supply. <i>Applied Thermal Engineering</i> , 2018, 141, 288-297.	6.0	9

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55	Generation of synthetic models of gas distribution networks with spatial and multi-level features. International Journal of Electrical Power and Energy Systems, 2020, 117, 105656.	5.5	9
56	Experimental Modeling of Transients in Large SOFC Systems. Journal of Fuel Cell Science and Technology, 2013, 10, .	0.8	7
57	Topological modelling of gas networks for co-simulation applications in multi-energy systems. Mathematics and Computers in Simulation, 2021, 183, 244-253.	4.4	7
58	Performances and Degradation Phenomena of Solid Oxide Anode Supported Cells With LSM and LSCF Cathodes: An Experimental Assessment. Journal of Fuel Cell Science and Technology, 2009, 6, .	0.8	6
59	Experimental Evaluation of Planar SOFC Single Unit Cell With Crofer22APU Plate Assembly. Journal of Fuel Cell Science and Technology, 2011, 8, .	0.8	6
60	A Statistical Assessment of Blending Hydrogen into Gas Networks. Energies, 2021, 14, 5055.	3.1	6
61	Feasibility of SOFC Operation with Bio-Methane and Bio-Hydrogen from Anaerobic Digestion. ECS Transactions, 2009, 17, 185-195.	0.5	5
62	Limiting Factors for a Planar Solid Oxide Fuel Cell Under Different Flow and Temperature Conditions. Fuel Cells, 2013, 13, n/a-n/a.	2.4	5
63	Model and Simulation of a SOFC CHP Plant Fuelled with Hydrogen. ECS Transactions, 2007, 5, 553-563.	0.5	4
64	Experimental Activity on the Tubular SOFC CHP100 kWe Field Unit in Italy: Factor Significance, Effects and Regression Model Analysis. , 2006, , .		4
65	Exergetic and Exergoeconomic Analysis of Three Different Technologies for Post-combustion CO2 Capture. Energy Procedia, 2017, 114, 6455-6464.	1.8	3
66	Creation of Representative Gas Distribution Networks for Multi-vector Energy System Studies. , 2019, , .		3
67	Experimental Analysis of the Polarization Effects at Variable Local Temperature and Fuel Consumption in a 100 kWe SOFC Stack. ECS Transactions, 2007, 5, 533-544.	0.5	2
68	Synthetic gas networks for the statistical assessment of low-carbon distribution systems. Sustainable Energy, Grids and Networks, 2022, 31, 100765.	3.9	2
69	Experimental Analysis of the Temperature and Voltage Distribution of a SOFC Generator Varying the Air Stoichiometry and Pre-Heating Temperature. , 2006, , 465.		1
70	Polarization Analysis and Microstructural Characterization of SOFC Anode and Electrolyte Supported Cells. ECS Transactions, 2008, 12, 343-353.	0.5	1
71	Design and Balance-of-Plant of a Demonstration Plant With a Solid Oxide Fuel Cell Fed by Biogas From Waste-Water and Exhaust Carbon Recycling for Algae Growth. , 2013, , .		1
72	Pressure management in smart gas networks for increasing hydrogen blending. E3S Web of Conferences, 2022, 334, 03003.	0.5	1

#	ARTICLE	IF	CITATIONS
73	Addendum: Rozzi, E.; Minuto, F.D.; Lanzini, A.; Leone, P. Green Synthetic Fuels: Renewable Routes for the Conversion of Non-Fossil Feedstocks into Gaseous Fuels and Their End Uses. <i>Energies</i> 2020, 13, 420. <i>Energies</i> , 2020, 13, 1211.	3.1	0
74	Performance and Degradation Effects of Anode-Supported Cells With LSM and LSCF Cathodes. , 2007, , .		0
75	Utilisation of Biogas From an Urban Sewage Treatment Plant in a Solid Oxide Fuel Cell. , 2010, , .		0
76	Experimental Investigation and Modeling of Direct Internal Reforming of Biogases in Tubular SOFC. , 2010, , .		0