

Linda Barelli

List of Publications by Year in descending order

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124
papers

3,669
citations

117571

34
h-index

155592

55
g-index

126
all docs

126
docs citations

126
times ranked

3549
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen production through sorption-enhanced steam methane reforming and membrane technology: A review. <i>Energy</i> , 2008, 33, 554-570.	4.5	599
2	Dynamic analysis of PEMFC-based CHP systems for domestic application. <i>Applied Energy</i> , 2012, 91, 13-28.	5.1	118
3	An energetic&exergetic analysis of a residential CHP system based on PEM fuel cell. <i>Applied Energy</i> , 2011, 88, 4334-4342.	5.1	105
4	Diagnosis methodology and technique for solid oxide fuel cells: A review. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 5060-5074.	3.8	87
5	An energetic&exergetic comparison between PEMFC and SOFC-based micro-CHP systems. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 3206-3214.	3.8	81
6	Part load operation of a SOFC/GT hybrid system: Dynamic analysis. <i>Applied Energy</i> , 2013, 110, 173-189.	5.1	80
7	Green hydrogen & electricity production via geothermal-driven multi-generation system: Thermodynamic modeling and optimization. <i>Fuel</i> , 2022, 308, 122049.	3.4	79
8	Diagnosis of internal combustion engine through vibration and acoustic pressure non-intrusive measurements. <i>Applied Thermal Engineering</i> , 2009, 29, 1707-1713.	3.0	77
9	Flywheel hybridization to improve battery life in energy storage systems coupled to RES plants. <i>Energy</i> , 2019, 173, 937-950.	4.5	73
10	Applicability of the SOFC technology for coupling with biomass-gasifier systems: Short- and long-term experimental study on SOFC performance and degradation behaviour. <i>Applied Energy</i> , 2019, 256, 113904.	5.1	72
11	Optimization of a PEMFC/battery pack power system for a bus application. <i>Applied Energy</i> , 2012, 97, 777-784.	5.1	70
12	Wind energy integration: Variability analysis and power system impact assessment. <i>Energy</i> , 2019, 185, 1183-1196.	4.5	67
13	Part load operation of SOFC/GT hybrid systems: Stationary analysis. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 16140-16150.	3.8	62
14	Real-time stochastic power management strategies in hybrid renewable energy systems: A review of key applications and perspectives. <i>Electric Power Systems Research</i> , 2020, 187, 106497.	2.1	60
15	Integration of SOFC/GT hybrid systems in Micro-Grids. <i>Energy</i> , 2017, 118, 716-728.	4.5	59
16	Dynamic Analysis of a Hybrid Energy Storage System (H-ESS) Coupled to a Photovoltaic (PV) Plant. <i>Energies</i> , 2018, 11, 396.	1.6	52
17	A micro-grid operation analysis for cost-effective battery energy storage and RES plants integration. <i>Energy</i> , 2016, 113, 831-844.	4.5	51
18	Integrating Hybrid Energy Storage System on a Wind Generator to enhance grid safety and stability: A Levelized Cost of Electricity analysis. <i>Journal of Energy Storage</i> , 2021, 34, 102050.	3.9	48

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19	Performance characterization and modelling of syngas-fed SOFCs (solid oxide fuel cells) varying fuel composition. <i>Energy</i> , 2015, 90, 2070-2084.	4.5	47
20	Stochastic power management strategy for hybrid energy storage systems to enhance large scale wind energy integration. <i>Journal of Energy Storage</i> , 2020, 31, 101650.	3.9	47
21	Design optimization of a SOFC-based CHP system through dynamic analysis. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 354-369.	3.8	46
22	Challenges in load balance due to renewable energy sources penetration: The possible role of energy storage technologies relative to the Italian case. <i>Energy</i> , 2015, 93, 393-405.	4.5	44
23	Effect of air addition to methane on performance stability and coking over NiO-YSZ anodes of SOFC. <i>Applied Energy</i> , 2016, 177, 179-186.	5.1	44
24	Biogas use in high temperature fuel cells: Enhancement of KOH-KI activated carbon performance toward H ₂ S removal. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 10341-10353.	3.8	42
25	Comparison of support vector regression and random forest algorithms for estimating the SOFC output voltage by considering hydrogen flow rates. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 35023-35038.	3.8	40
26	Study of SOFC-SOE transition on a RSOFC stack. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 26037-26047.	3.8	39
27	SOFC stack coupled with dry reforming. <i>Applied Energy</i> , 2017, 192, 498-507.	5.1	39
28	Solid oxide fuel cell technology coupled with methane dry reforming: A viable option for high efficiency plant with reduced CO ₂ emissions. <i>Energy</i> , 2014, 71, 118-129.	4.5	37
29	Analysis of the operating conditions influence on PEM fuel cell performances by means of a novel semi-empirical model. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 10434-10442.	3.8	36
30	Synthesis and test of sorbents based on calcium aluminates for SE-SR. <i>Applied Energy</i> , 2014, 127, 81-92.	5.1	36
31	Progress in renewable power exploitation: reversible solid oxide cells-flywheel hybrid storage systems to enhance flexibility in micro-grids management. <i>Journal of Energy Storage</i> , 2019, 23, 202-219.	3.9	36
32	Molten Carbonate Fuel Cell performance analysis varying cathode operating conditions for carbon capture applications. <i>Journal of Power Sources</i> , 2017, 348, 118-129.	4.0	35
33	13X Ex-Cu zeolite performance characterization towards H ₂ S removal for biogas use in molten carbonate fuel cells. <i>Energy</i> , 2018, 160, 44-53.	4.5	35
34	Application of artificial neural network to predict thermal transmittance of wooden windows. <i>Applied Energy</i> , 2012, 98, 425-432.	5.1	34
35	Solid oxide fuel cell modelling: Electrochemical performance and thermal management during load-following operation. <i>Energy</i> , 2016, 115, 107-119.	4.5	34
36	Supercharged gas turbine combined cycle: An improvement in plant flexibility and efficiency. <i>Energy</i> , 2015, 81, 615-626.	4.5	33

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37	Kinetic modelling of molten carbonate fuel cells: Effects of cathode water and electrode materials. <i>Journal of Power Sources</i> , 2016, 330, 18-27.	4.0	32
38	Addressing the energy sustainability of biowaste-derived hard carbon materials for battery electrodes. <i>Green Chemistry</i> , 2018, 20, 1527-1537.	4.6	32
39	Mini-hydro: A design approach in case of torrential rivers. <i>Energy</i> , 2013, 58, 695-706.	4.5	31
40	SOFC direct fuelling with high-methane gases: Optimal strategies for fuel dilution and upgrade to avoid quick degradation. <i>Energy Conversion and Management</i> , 2016, 124, 492-503.	4.4	31
41	Comparative analysis of AC and DC bus configurations for flywheel-battery HESS integration in residential micro-grids. <i>Energy</i> , 2020, 204, 117939.	4.5	30
42	SOFC regulation at constant temperature: Experimental test and data regression study. <i>Energy Conversion and Management</i> , 2016, 117, 289-296.	4.4	29
43	Performance assessment of natural gas and biogas fueled molten carbonate fuel cells in carbon capture configuration. <i>Journal of Power Sources</i> , 2016, 320, 332-342.	4.0	29
44	Residential micro-grid load management through artificial neural networks. <i>Journal of Energy Storage</i> , 2018, 17, 287-298.	3.9	28
45	Upgrading versus reforming: an energy and exergy analysis of two Solid Oxide Fuel Cell-based systems for a convenient biogas-to-electricity conversion. <i>Energy Conversion and Management</i> , 2017, 138, 360-374.	4.4	27
46	Operation of a Solid Oxide Fuel Cell Based Power System with Ammonia as a Fuel: Experimental Test and System Design. <i>Energies</i> , 2020, 13, 6173.	1.6	27
47	Economics of innovative high capacity-to-power energy storage technologies pointing at 100% renewable micro-grids. <i>Journal of Energy Storage</i> , 2020, 28, 101198.	3.9	27
48	High temperature electrolysis using Molten Carbonate Electrolyzer. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 14922-14931.	3.8	24
49	The Potential Role of Reactive Metals for a Clean Energy Transition. <i>Advanced Energy Materials</i> , 2020, 10, 2001002.	10.2	23
50	Real time power management strategy for hybrid energy storage systems coupled with variable energy sources in power smoothing applications. <i>Energy Reports</i> , 2021, 7, 2872-2882.	2.5	23
51	Implementation of a cogenerative district heating: Optimization of a simulation model for the thermal power demand. <i>Energy and Buildings</i> , 2006, 38, 1434-1442.	3.1	22
52	Wooden windows: Sound insulation evaluation by means of artificial neural networks. <i>Applied Acoustics</i> , 2013, 74, 740-745.	1.7	22
53	Experimental study on H ₂ S adsorption on gasification char under different operative conditions. <i>Biomass and Bioenergy</i> , 2019, 126, 106-116.	2.9	22
54	Enzymatic Biofuel Cells: A Review on Flow Designs. <i>Energies</i> , 2021, 14, 910.	1.6	22

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55	How Hybridization of Energy Storage Technologies Can Provide Additional Flexibility and Competitiveness to Microgrids in the Context of Developing Countries. <i>Energies</i> , 2019, 12, 3138.	1.6	21
56	Production of hydrogen through the carbonation–calcination reaction applied to CH ₄ /CO ₂ mixtures. <i>Energy</i> , 2007, 32, 834-843.	4.5	20
57	Sizing and control of a Solid Oxide Fuel Cell/Gas microTurbine hybrid power system using a unique inverter for rural microgrid integration. <i>Applied Energy</i> , 2016, 176, 272-281.	5.1	20
58	Optimization of a Reference Kinetic Model for Solid Oxide Fuel Cells. <i>Catalysts</i> , 2020, 10, 104.	1.6	20
59	SE-SR with sorbents based on calcium aluminates: Process optimization. <i>Applied Energy</i> , 2015, 143, 110-118.	5.1	19
60	Hydromethane generation through SOE (solid oxide electrolyser): Advantages of H ₂ O–CO ₂ co-electrolysis. <i>Energy</i> , 2015, 90, 1180-1191.	4.5	18
61	Vanadium redox flow batteries application to electric buses propulsion: Performance analysis of hybrid energy storage system. <i>Journal of Energy Storage</i> , 2019, 24, 100770.	3.9	18
62	The use of ammonia as a fuel for transport: Integration with solid oxide fuel cells. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	17
63	Innovative power management of hybrid energy storage systems coupled to RES plants: The Simultaneous Perturbation Stochastic Approximation approach. , 2019, , .		16
64	Enzymatic fuel cell technology for energy production from bio-sources. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	16
65	Multiscale Modeling for Reversible Solid Oxide Cell Operation. <i>Energies</i> , 2020, 13, 5058.	1.6	16
66	Study of the carbonation–calcination reaction applied to the hydrogen production from syngas. <i>Energy</i> , 2007, 32, 697-710.	4.5	15
67	CO ₂ capture with solid sorbent: CFD model of an innovative reactor concept. <i>Applied Energy</i> , 2016, 162, 58-67.	5.1	15
68	On the feasibility of on-farm biogas-to-electricity conversion: To what extent is solid oxide fuel cells durability a threat to break even the initial investment?. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 16971-16985.	3.8	15
69	Development and validation of a Ni-based catalyst for carbon dioxide dry reforming of methane process coupled to solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 16582-16593.	3.8	15
70	Regarding Solid Oxide Fuel Cells Simulation through Artificial Intelligence: A Neural Networks Application. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 51.	1.3	15
71	How to Power the Energy–Water Nexus: Coupling Desalination and Hydrogen Energy Storage in Mini-Grids with Reversible Solid Oxide Cells. <i>Processes</i> , 2020, 8, 1494.	1.3	15
72	Design of the measurements validation procedure and the expert system architecture for a cogeneration internal combustion engine. <i>Applied Thermal Engineering</i> , 2005, 25, 2698-2714.	3.0	14

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73	SOFC Thermal Transients: Modeling by Application of Experimental System Identification Techniques. Fuel Cells, 2014, 14, 107-122.	1.5	14
74	Dimethyl sulfide adsorption from natural gas for solid oxide fuel cell applications. Fuel Processing Technology, 2015, 140, 21-31.	3.7	14
75	Dynamic Modeling of a Hybrid Propulsion System for Tourist Boat. Energies, 2018, 11, 2592.	1.6	13
76	Steam as sweep gas in SOE oxygen electrode. Journal of Energy Storage, 2018, 20, 190-195.	3.9	13
77	An extensive model for renewable energy electrochemical storage with Solid Oxide Cells based on a comprehensive analysis of impedance deconvolution. Journal of Energy Storage, 2021, 33, 102052.	3.9	13
78	Diagnosis of a turbocharging system of 1MW internal combustion engine. Energy Conversion and Management, 2013, 68, 28-39.	4.4	12
79	Performance characterization of a novel Fe-based sorbent for anaerobic gas desulfurization finalized to high temperature fuel cell applications. International Journal of Hydrogen Energy, 2017, 42, 1859-1874.	3.8	12
80	Steam vs. Dry Reformer: Experimental Study on a Solid Oxide Fuel Cell Short Stack. Catalysts, 2018, 8, 599.	1.6	12
81	Implementation of a cogenerative district heating system: Dimensioning of the production plant. Energy and Buildings, 2007, 39, 658-664.	3.1	11
82	Reactive Metals as Energy Storage and Carrier Media: Use of Aluminum for Power Generation in Fuel Cell-Based Power Plants. Energy Technology, 2020, 8, 2000233.	1.8	11
83	Micro-cogeneration based on solid oxide fuel cells: Market opportunities in the agriculture/livestock sector. International Journal of Hydrogen Energy, 2021, 46, 10036-10048.	3.8	11
84	Early-Stage Detection of Solid Oxide Cells Anode Degradation by Operando Impedance Analysis. Processes, 2021, 9, 848.	1.3	11
85	Diagnosis methodology for the turbocharger groups installed on a 1MW internal combustion engine. Applied Energy, 2009, 86, 2721-2730.	5.1	10
86	H ₂ S absorption on activated carbons NoritRB1: CFD model development. Fuel Processing Technology, 2012, 100, 35-42.	3.7	10
87	Cylinders diagnosis system of a 1MW internal combustion engine through vibrational signal processing using DWT technique. Applied Energy, 2012, 92, 44-50.	5.1	10
88	Solid oxide fuel cell systems in hydrogen-based energy storage applications: Performance assessment in case of anode recirculation. Journal of Energy Storage, 2022, 54, 105257.	3.9	10
89	Evaluation of the corrected seasonal energy demand, for buildings classification, to be compared with a standard performance scale. Energy and Buildings, 2009, 41, 958-965.	3.1	9
90	Dehydration and low temperature separation technologies for liquified natural gas production via electrolysis: A systematic review. Journal of Energy Storage, 2020, 30, 101471.	3.9	9

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91	Development of an energetic diagnosis method for the buildings: example of the Perugia University. Energy and Buildings, 2004, 36, 81-87.	3.1	7
92	A non-conventional quality control system to detect surface faults in mechanical front seals. Engineering Applications of Artificial Intelligence, 2008, 21, 1065-1072.	4.3	7
93	Analysis and validation of a biogas hybrid SOFC/GT emulator. , 2014, , .		7
94	Optimization of an integrated biomass gasifier-fuel cell system: An experimental study on the cell response to process variations. Energy Procedia, 2019, 158, 2052-2057.	1.8	7
95	A novel technology for liquefied synthetic natural gas production powered by renewable electricity: Process development and impact analysis on vehicular transportation. Journal of Natural Gas Science and Engineering, 2020, 81, 103482.	2.1	7
96	Sustainable water-energy innovations for higher comfort of living in remote and rural areas from developing countries: From seawater to hydrogen through reversible Solid Oxide Cells. Journal of Cleaner Production, 2021, 321, 128846.	4.6	7
97	Development of the regulation mapping of 1MW internal combustion engine for diagnostic scopes. Applied Energy, 2009, 86, 1087-1104.	5.1	6
98	The radiation factor computation of energy systems by means of vibration and noise measurements: The case study of a cogenerative internal combustion engine. Applied Energy, 2012, 100, 258-266.	5.1	6
99	Design of a Fuzzy Logic Controller for a Remote Power Application. , 2019, , .		6
100	Coupling Hybrid Energy Storage System to Regenerative Actuators in a More Electric Aircraft: Dynamic Performance Analysis and CO2 Emissions Assessment concerning the Italian Regional Aviation Scenario. Journal of Energy Storage, 2022, 45, 103776.	3.9	6
101	Boil-off gas emission from the fuel tank of a LNG powered truck. Fuel, 2022, 325, 124954.	3.4	6
102	Experimental investigation of SO2 poisoning in a Molten Carbonate Fuel Cell operating in CCS configuration. International Journal of Hydrogen Energy, 2016, 41, 18822-18836.	3.8	5
103	Air variation in SOE: Stack experimental study. International Journal of Hydrogen Energy, 2018, 43, 11655-11662.	3.8	5
104	Development of a Decisional Procedure Based on Fuzzy Logic for the Energy Retrofitting of Buildings. Sustainability, 2021, 13, 9318.	1.6	5
105	Electric vehicles fire protection during charge operation through Vanadium-air flow battery technology. Heliyon, 2021, 7, e08064.	1.4	5
106	Hybrid Energy Storage and Hydrogen Supply Based on Aluminumâ€™a Multiservice Case for Electric Mobility and Energy Storage Services. Advanced Materials Technologies, 2022, 7, 2101400.	3.0	5
107	Immobilizing Enzymes on a Commercial Polymer: Performance Analysis of a COx-Laccase Based Enzymatic Biofuel Cell Assembly. Energies, 2022, 15, 2182.	1.6	5
108	Energy from the Waves: Integration of a HESS to a Wave Energy Converter in a DC Bus Electrical Architecture to Enhance Grid Power Quality. Energies, 2022, 15, 10.	1.6	4

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109	HESS in a Wind Turbine Generator: Assessment of Electric Performances at Point of Common Coupling with the Grid. Journal of Marine Science and Engineering, 2021, 9, 1413.	1.2	4
110	Modeling of a 1MW cogenerative internal combustion engine for diagnostic scopes. Applied Energy, 2011, 88, 2702-2712.	5.1	3
111	Syngas-fed SOFCs: Analysis of Performance Sensitivity to Fuel Composition. ECS Transactions, 2015, 68, 2763-2774.	0.3	3
112	Advancements regarding in-operando diagnosis techniques for solid oxide cells NiYSZ cermets. AIP Conference Proceedings, 2019, , .	0.3	3
113	Liquefied Synthetic Natural Gas Produced through Renewable Energy Surplus: Impact Analysis on Vehicular Transportation by 2040 in Italy. Gases, 2021, 1, 80-91.	1.0	3
114	An effective solution to boost generation from waves: Benefits of a hybrid energy storage system integration to wave energy converter in grid-connected systems. Open Research Europe, 0, 2, 40.	2.0	3
115	Operando Analysis of Losses in Commercial-Sized Solid Oxide Cells: Methodology Development and Validation. Energies, 2022, 15, 4978.	1.6	3
116	Electrical performance analysis of an innovative Vanadium redox flow battery stack for enhanced power density applications. , 2021, , .		2
117	Proposal of technical constructive obligations to reduce the summer energetic consumptions. Energy and Buildings, 2010, 42, 401-411.	3.1	1
118	Radial Turbines Diagnosis in Turbocharging Application. Journal of Engineering for Gas Turbines and Power, 2015, 137, .	0.5	1
119	Quick Degradation Detection on Biogas-Fuelled SOFCs. ECS Transactions, 2019, 91, 1571-1580.	0.3	1
120	A multidisciplinary approach to the study of structural glass panels: Preliminary results. AIP Conference Proceedings, 2019, , .	0.3	1
121	Fuzzy Logic Regulator for the Performance Improvement and the Energy Consumption Reduction of an Industrial Chiller. , 2003, , 1215.		0
122	System Analysis of Flywheels. , 2021, , .		0
123	Models for Fuel Cells and Electrolyzers: Reversible Solid Oxide Cells (rSOC). , 2021, , .		0
124	Performance Improvement of an Industrial Chiller Through the Optimization of the Control Logic. , 2002, , .		0