

Giorgio Cau

List of Publications by Year in descending order

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Version: 2024-02-01

51
papers

1,804
citations

236925

25
h-index

265206

42
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all docs

51
docs citations

51
times ranked

1871
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling, Optimization and Testing of Thermal Energy Storage Systems and Their Integration in Energy Conversion Processes. <i>Energies</i> , 2022, 15, 1121.	3.1	0
2	Integration of pumped thermal energy storage systems based on Brayton cycle with CSP plants. , 2022, , .		0
3	Pumped thermal energy storage systems integrated with a concentrating solar power section: Conceptual design and performance evaluation. <i>Energy</i> , 2022, 247, 123516.	8.8	14
4	Performance Assessment of Low-Temperature A-CAES (Adiabatic Compressed Air Energy Storage) Plants. <i>Journal of Thermal Science</i> , 2022, 31, 1279-1292.	1.9	4
5	Assessment of integrated energy systems for the production and use of renewable methanol by water electrolysis and CO ₂ hydrogenation. <i>Fuel</i> , 2021, 285, 119160.	6.4	66
6	Thermocline vs. two-tank direct thermal storage system for concentrating solar power plants: A comparative techno-economic assessment. <i>International Journal of Energy Research</i> , 2021, 45, 17721-17737.	4.5	14
7	The Ottana solar facility: dispatchable power from small-scale CSP plants based on ORC systems. <i>Renewable Energy</i> , 2020, 147, 2932-2943.	8.9	29
8	Thermo-economic evaluation of actively selected siloxane mixtures in a hybrid solar-biomass organic Rankine cycle power plant. <i>Applied Thermal Engineering</i> , 2020, 165, 114607.	6.0	25
9	Multi-objective thermo-economic optimization of biomass retrofit for an existing solar organic Rankine cycle power plant based on NSGA-II. <i>Energy Reports</i> , 2020, 6, 136-145.	5.1	19
10	Impacts of Renewable Energy Resources on Effectiveness of Grid-Integrated Systems: Succinct Review of Current Challenges and Potential Solution Strategies. <i>Energies</i> , 2020, 13, 4856.	3.1	29
11	Optimal Integration of Hydrogen-Based Energy Storage Systems in Photovoltaic Microgrids: A Techno-Economic Assessment. <i>Energies</i> , 2020, 13, 4149.	3.1	13
12	Numerical Investigation on a Packed-Bed LHTES System Integrated into a Micro Electrical and Thermal Grid. <i>Energies</i> , 2020, 13, 2018.	3.1	4
13	Modified auxiliary exergy costing in advanced exergoeconomic analysis applied to a hybrid solar-biomass organic Rankine cycle plant. <i>Applied Energy</i> , 2020, 268, 114888.	10.1	34
14	Exergetic and integrated exergoeconomic assessments of a hybrid solar-biomass organic Rankine cycle cogeneration plant. <i>Energy Conversion and Management</i> , 2020, 215, 112905.	9.2	46
15	Biomass retrofit for existing solar organic Rankine cycle power plants: Conceptual hybridization strategy and techno-economic assessment. <i>Energy Conversion and Management</i> , 2019, 196, 831-845.	9.2	41
16	Techno-economic comparison of different thermal energy storage technologies for medium-scale CSP plants. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	4
17	Performance evaluation of an integrated energy system for the production and use of renewable methanol via water electrolysis and CO ₂ hydrogenation. <i>AIP Conference Proceedings</i> , 2019, , .	0.4	2
18	Use of weather forecast for increasing the self-consumption rate of home solar systems: An Italian case study. <i>Applied Energy</i> , 2018, 212, 746-758.	10.1	21

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19	CO ₂ -free coal-fired power generation by partial oxy-fuel and post-combustion CO ₂ capture: Techno-economic analysis. <i>Fuel</i> , 2018, 214, 423-435.	6.4	78
20	Comparison between experimental and numerical results of a packed-bed thermal energy storage system in continuous operation. <i>Energy Procedia</i> , 2018, 148, 234-241.	1.8	16
21	Techno-economic comparison between different technologies for CO ₂ -free power generation from coal. <i>Applied Energy</i> , 2017, 193, 426-439.	10.1	76
22	Comparison of three different approaches for the optimization of the CSP plant scheduling. <i>Solar Energy</i> , 2017, 150, 463-476.	6.1	31
23	Small-scale CSP plant coupled with an ORC system for providing dispatchable power: the Ottana Solar Facility. <i>Energy Procedia</i> , 2017, 129, 708-715.	1.8	13
24	Performance assessment of Adiabatic Compressed Air Energy Storage (A-CAES) power plants integrated with packed-bed thermocline storage systems. <i>Energy Conversion and Management</i> , 2017, 151, 343-356.	9.2	69
25	Experimental and Numerical Research Activity on a Packed Bed TES System. <i>Energies</i> , 2016, 9, 758.	3.1	29
26	CO ₂ Emissions Reduction From Coal-Fired Power Generation: A Techno-Economic Comparison. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2016, 138, .	2.3	31
27	Real-time integration of optimal generation scheduling with MPC for the energy management of a renewable hydrogen-based microgrid. <i>Applied Energy</i> , 2016, 166, 96-106.	10.1	154
28	A comparison between CFD simulation and experimental investigation of a packed-bed thermal energy storage system. <i>Applied Thermal Engineering</i> , 2016, 98, 1263-1272.	6.0	104
29	Solar-Assisted Ultra-supercritical Steam Power Plants with Carbon Capture and Storage. , 2016, , 933-947.		1
30	Experimental investigation of a packed bed thermal energy storage system. <i>Journal of Physics: Conference Series</i> , 2015, 655, 012018.	0.4	20
31	Energy and economic analysis of concentrating solar power plants based on parabolic trough and linear Fresnel collectors. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2015, 229, 677-688.	1.4	37
32	A Study of a Packed-bed Thermal Energy Storage Device: Test Rig, Experimental and Numerical Results. <i>Energy Procedia</i> , 2015, 81, 987-994.	1.8	35
33	A Pilot Power Plant Based on Concentrating Solar and Energy Storage Technologies for Improving Electricity Dispatch. <i>Energy Procedia</i> , 2015, 81, 165-172.	1.8	16
34	A steady state model for predicting performance of small-scale up-draft coal gasifiers. <i>Fuel</i> , 2015, 152, 3-12.	6.4	27
35	Performance evaluation of high-sulphur coal-fired USC plant integrated with SNOX and CO ₂ capture sections. <i>Applied Thermal Engineering</i> , 2015, 74, 136-145.	6.0	11
36	Comparison of Medium-size Concentrating Solar Power Plants based on Parabolic Trough and Linear Fresnel Collectors. <i>Energy Procedia</i> , 2014, 45, 101-110.	1.8	99

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37	Energy management strategy based on short-term generation scheduling for a renewable microgrid using a hydrogen storage system. Energy Conversion and Management, 2014, 87, 820-831.	9.2	206
38	Modeling and Simulation of an Isolated Hybrid Micro-grid with Hydrogen Production and Storage. Energy Procedia, 2014, 45, 12-21.	1.8	21
39	Performance assessment of USC power plants integrated with CCS and concentrating solar collectors. Energy Conversion and Management, 2014, 88, 973-984.	9.2	34
40	Numerical Investigation of a Packed Bed Thermal Energy Storage System with Different Heat Transfer Fluids. Energy Procedia, 2014, 45, 598-607.	1.8	65
41	Comparative performance assessment of USC and IGCC power plants integrated with CO2 capture systems. Fuel, 2014, 116, 820-833.	6.4	59
42	Performance and cost assessment of Integrated Solar Combined Cycle Systems (ISCCSs) using CO2 as heat transfer fluid. Solar Energy, 2012, 86, 2975-2985.	6.1	43
43	Energy and cost analysis of small-size integrated coal gasification and syngas storage power plants. Energy Conversion and Management, 2012, 56, 121-129.	9.2	31
44	Energy and Cost Analysis of Small Size CHP Coal Gasification Plants Integrated With Syngas Storage Systems. , 2012, , .		0
45	Integration of Combined Cycle Power Plants and Parabolic Solar Troughs Using CO2 as Heat Transfer Fluid. , 2010, , .		2
46	Performance evaluation of chemically recuperated gas turbine (CRGT) power plants fuelled by di-methyl-ether (DME). Energy, 2006, 31, 1446-1458.	8.8	39
47	Performance evaluation of small size externally fired gas turbine (EFGT) power plants integrated with direct biomass dryers. Energy, 2006, 31, 1459-1471.	8.8	68
48	Comparative Analysis of Hydrogen Combustion Power Plants Integrated With Coal Gasification and CO2 Removal. , 2006, , .		0
49	Performance of Zero Emissions Integrated Gasification Hydrogen Combustion (ZE-IGHC) Power Plants With CO2 Removal. , 2001, , .		5
50	Performance Assessment of Semi-Closed Chemically Recuperated Gas Turbine Systems. , 2000, , .		10
51	Thermodynamic and environmental assessment of integrated gasification and methanol synthesis (IGMS) energy systems with CO2 removal. Energy Conversion and Management, 1997, 38, S179-S186.	9.2	9