Antonio Rovira

List of Publications by Year
in descending order

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50 papers	1,364 citations	331259 21 h-index	329751 37 g-index
50 all docs	50 docs citations	50 times ranked	1135 citing authors

#	Article	IF	Citations
1	Performance analysis of an Integrated Solar Combined Cycle using Direct Steam Generation in parabolic trough collectors. Applied Energy, 2011, 88, 3228-3238.	5.1	214
2	Thermoeconomic optimization of combined cycle gas turbine power plants using genetic algorithms. Applied Thermal Engineering, 2003, 23, 2169-2182.	3.0	129
3	Comparison of Heat Transfer Fluid and Direct Steam Generation technologies for Integrated Solar Combined Cycles. Applied Thermal Engineering, 2013, 52, 264-274.	3.0	101
4	Analysis and comparison of Integrated Solar Combined Cycles using parabolic troughs and linear Fresnel reflectors as concentrating systems. Applied Energy, 2016, 162, 990-1000.	5.1	81
5	Thermoeconomic optimisation of heat recovery steam generators of combined cycle gas turbine power plants considering off-design operation. Energy Conversion and Management, 2011, 52, 1840-1849.	4.4	69
6	Performance of a 5kWe Organic Rankine Cycle at part-load operation. Applied Energy, 2014, 120, 147-158.	5.1	65
7	Parabolic trough collector or linear Fresnel collector? A comparison of optical features including thermal quality based on commercial solutions. Solar Energy, 2016, 124, 198-215.	2.9	53
8	Energy management in solar thermal power plants with double thermal storage system and subdivided solar field. Applied Energy, 2011, 88, 4055-4066.	5.1	46
9	Performance study of solar power plants with CO2 as working fluid. A promising design window. Energy Conversion and Management, 2015, 92, 36-46.	4.4	42
10	Proposal of a fluid flow layout to improve the heat transfer in the active absorber surface of solar central cavity receivers. Applied Thermal Engineering, 2012, 35, 220-232.	3.0	41
11	Performance model and thermal comparison of different alternatives for the Fresnel single-tube receiver. Applied Thermal Engineering, 2016, 104, 162-175.	3.0	41
12	Performance of a 5 kWe Solar-only Organic Rankine Unit Coupled to a Reverse Osmosis Plant. Energy Procedia, 2014, 49, 2251-2260.	1.8	36
13	A model to predict the behaviour at part load operation of once-through heat recovery steam generators working with water at supercritical pressure. Applied Thermal Engineering, 2010, 30, 1652-1658.	3.0	30
14	Optimization of Brayton cycles for low-to-moderate grade thermal energy sources. Energy, 2013, 55, 403-416.	4.5	30
15	Influence of the heat recovery steam generator design parameters on the thermoeconomic performances of combined cycle gas turbine power plants. International Journal of Energy Research, 2004, 28, 1243-1254.	2.2	29
16	Thermodynamic cycles optimised for medium enthalpy units of concentrating solar power. Energy, 2014, 67, 176-185.	4.5	26
17	A methodology for the geometric design of heat recovery steam generators applying genetic algorithms. Applied Thermal Engineering, 2013, 52, 77-83.	3.0	24
18	Analysis and optimisation of combined cycles gas turbines working with partial recuperation. Energy Conversion and Management, 2015, 106, 1097-1108.	4.4	24

#	Article	IF	Citations
19	Maturation of critical technologies for the DEMO balance of plant systems. Fusion Engineering and Design, 2022, 179, 113096.	1.0	24
20	Proposal of a new design of source heat exchanger for the technical feasibility of solar thermal plants coupled to supercritical power cycles. Solar Energy, 2020, 211, 1027-1041.	2.9	22
21	A new methodology to solve non-linear equation systems using genetic algorithms. Application to combined cyclegas turbine simulation. International Journal for Numerical Methods in Engineering, 2005, 63, 1424-1435.	1.5	21
22	A new approach for the prediction of thermal efficiency in solar receivers. Energy Conversion and Management, 2016, 123, 498-511.	4.4	21
23	Off-design analysis of a Hybrid Rankine-Brayton cycle used as the power block of a solar thermal power plant. Energy, 2017, 134, 369-381.	4.5	20
24	Thermal efficiency of direct, inverse and sCO 2 gas turbine cycles intended for small power plants. Energy, 2016, 100, 66-72.	4.5	16
25	Proposal and analysis of an integrated solar combined cycle with partial recuperation. Energy, 2020, 198, 117379.	4.5	15
26	Comparison of Different Technologies for Integrated Solar Combined Cycles: Analysis of Concentrating Technology and Solar Integration. Energies, 2018, 11, 1064.	1.6	13
27	Proposal and study of a balanced hybrid Rankineâ€“Brayton cycle for low-to-moderate temperature solar power plants. Energy, 2015, 89, 305-317.	4.5	12
28	Performance of an Organic Rankine Cycle with two expanders at off-design operation. Applied Thermal Engineering, 2019, 149, 688-701.	3.0	12
29	A new design of multi-tube receiver for Fresnel technology to increase the thermal performance. Applied Thermal Engineering, 2022, 204, 117970.	3.0	11
30	On the improvement of annual performance of solar thermal power plants through exergy management. International Journal of Energy Research, 2014, 38, 658-673.	2.2	10
31	Advanced thermodynamic cycles for finite heat sources: Proposals for closed and open heat sources applications. Applied Thermal Engineering, 2020, 167, 114805.	3.0	9
32	Modular micro-trigeneration system for a novel rotatory solar Fresnel collector: A design space analysis. Energy Conversion and Management, 2021, 227, 113599.	4.4	9
33	Proposal and analysis of different methodologies for the shading and blocking efficiency in central receivers systems. Solar Energy, 2017, 144, 475-488.	2.9	8
34	A new method for the selection of candidates for shading and blocking in central receiver systems. Renewable Energy, 2020, 152, 961-973.	4.3	7
35	Thermodynamic cycles for solar thermal power plants: A review. Wiley Interdisciplinary Reviews: Energy and Environment, 2022, 11, e420.	1.9	7
36	Analysis of an Integrated Solar Combined Cycle with Recuperative Gas Turbine and Double Recuperative and Double Expansion Propane Cycle. Entropy, 2020, 22, 476.	1.1	6

#	Article	IF	Citations
37	A First and Second Thermodynamics Law Analysis of a Hydrogen-Fueled Microgas Turbine for Combined Heat and Power Generation. Journal of Engineering for Gas Turbines and Power, 2014, 136, .	0.5	5
38	Design of Carbon Pistons Using Transient Heat Transfer and Stress Analyses. , 2001, , .		4
39	A direct numerical integration (DNI) method to obtain wall thermal response factors. Energy and Buildings, 2014, 81, 363-370.	3.1	4
40	Integrated solar combined cycles using gas turbines with partial recuperation and solar integration at different pressure levels. AIP Conference Proceedings, 2017, , .	0.3	4
41	The Influence of Atmospheric Conditions on the Performance of Combined Cycle Gas Turbine Power Plants. , 2006, , 495.		3
42	Thermoeconomic Coherence: A Methodology for the Analysis and Optimisation of Thermal Systems. Entropy, 2016, 18, 250.	1.1	3
43	Methodology for the thermal characterization of linear Fresnel collectors: Comparative of different configurations and working fluids. AIP Conference Proceedings, 2017, , .	0.3	3
44	A fast and accurate methodology for the calculation of the shading and blocking efficiency in central receiver systems. Renewable Energy, 2020, 154, 58-70.	4.3	3
45	Enhancement of SunDial optical performance handling cosine and end losses. AIP Conference Proceedings, 2022, , .	0.3	3
46	A Quest to the Cheapest Method for Electricity Generation in Concentrating Solar Power Plants. Energy Procedia, 2015, 75, 514-520.	1.8	2
47	A Concentrating Solar Power Prototype for validating a new Fresnel-based plant design. Energy Procedia, 2015, 75, 423-429.	1.8	2
48	Proposal of optimized power cycles for the DEMO power plant (EUROfusion). Fusion Engineering and Design, 2019, 148, 111290.	1.0	2
49	On existence of trends applicable to thermoeconomic optimisation of combined cycle gas turbine power plants. Journal of the Energy Institute, 2006, 79, 110-115.	2.7	2
50	Study of the Influence of the Nominal Power on the Selection of the CCGT Power Plant Optimum Configuration Including Supercritical Configurations. , 2008, , .		0