JoaquÃ-n Navarro-EsbrÃ-

List of Publications by Year
in descending order

76 papers	3,537 citations	101543 36 h-index	138484 58 g-index
76 all docs	76 docs citations	76 times ranked	1994 citing authors

#	Article	IF	Citations
1	Analysis based on EU Regulation No 517/2014 of new HFC/HFO mixtures as alternatives of high GWP refrigerants in refrigeration and HVAC systems. International Journal of Refrigeration, 2015, 52, 21-31.	3.4	204
2	Drop-in energy performance evaluation of R1234yf and R1234ze(E) in a vapor compression system as R134a replacements. Applied Thermal Engineering, 2014, 71, 259-265.	6.0	197
3	Experimental analysis of R1234yf as a drop-in replacement for R134a in a vapor compression system. International Journal of Refrigeration, 2013, 36, 870-880.	3.4	153
4	Experimental study of an ORC (organic Rankine cycle) for low grade waste heat recovery in a ceramic industry. Energy, 2015, 85, 534-542.	8.8	146
5	A review of refrigerant R1234ze(E) recent investigations. Applied Thermal Engineering, 2016, 95, 211-222.	6.0	142
6	Time series analysis and forecasting techniques for municipal solid waste management. Resources, Conservation and Recycling, 2002, 35, 201-214.	10.8	123
7	Low GWP alternatives to HFC-245fa in Organic Rankine Cycles for low temperature heat recovery: HCFO-1233zd-E and HFO-1336mzz-Z. Applied Thermal Engineering, 2014, 71, 204-212.	6.0	101
8	Bottoming organic Rankine cycle configurations to increase Internal Combustion Engines power output from cooling water waste heat recovery. Applied Thermal Engineering, 2013, 61, 364-371.	6.0	99
9	Commercial refrigeration â€“ An overview of current status. International Journal of Refrigeration, 2015, 57, 186-196.	3.4	94
10	Refrigerant R32 as lower GWP working fluid in residential air conditioning systems in Europe and the USA. Renewable and Sustainable Energy Reviews, 2017, 80, 1031-1042.	16.4	91
11	Ultralow-temperature refrigeration systems: Configurations and refrigerants to reduce the environmental impact. International Journal of Refrigeration, 2020, 111, 147-158.	3.4	84
12	Experimental study of an R1234ze(E)/R134a mixture (R450A) as R134a replacement. International Journal of Refrigeration, 2015, 51, 52-58.	3.4	75
13	Thermodynamic analysis of low GWP alternatives to HFC-245fa in high-temperature heat pumps: HCFO-1224yd(Z), HCFO-1233zd(E) and HFO-1336mzz(Z). Applied Thermal Engineering, 2019, 152, 762-777.	6.0	74
14	Thermodynamic analysis of a combined organic Rankine cycle and vapor compression cycle system activated with low temperature heat sources using low GWP fluids. Applied Thermal Engineering, 2015, 87, 444-453.	6.0	73
15	Experimental analysis of the internal heat exchanger influence on a vapour compression system performance working with R1234yf as a drop-in replacement for R134a. Applied Thermal Engineering, 2013, 59, 153-161.	6.0	71
16	Advanced high temperature heat pump configurations using low GWP refrigerants for industrial waste heat recovery: A comprehensive study. Energy Conversion and Management, 2021, 229, 113752.	9.2	71
17	Experimental assessment of R134a and its lower GWP alternative R513A. International Journal of Refrigeration, 2017, 74, 682-688.	3.4	69
18	Theoretical energy performance evaluation of different single stage vapour compression refrigeration configurations using R1234yf and R1234ze(E) as working fluids. International Journal of Refrigeration, 2014, 44, 141-150.	3.4	64

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19	Drop-in analysis of an internal heat exchanger in a vapour compression system using R1234ze(E) and R450A as alternatives for R134a. Energy, 2015, 90, 1636-1644.	8.8	62
20	Experimental evaluation of R448A as R404A lower-GWP alternative in refrigeration systems. Energy Conversion and Management, 2015, 105, 756-762.	9.2	58
21	Theoretical evaluation of different high-temperature heat pump configurations for low-grade waste heat recovery. International Journal of Refrigeration, 2018, 90, 229-237.	3.4	58
22	Theoretical comparison of low GWP alternatives for different refrigeration configurations taking R404A as baseline. International Journal of Refrigeration, 2014, 44, 81-90.	3.4	57
23	Experimental characterization of an Organic Rankine Cycle (ORC) for micro-scale CHP applications. Applied Thermal Engineering, 2015, 79, 1-8.	6.0	57
24	Evaluation of R448A and R450A as low-GWP alternatives for R404A and R134a using a micro-fin tube evaporator model. Applied Thermal Engineering, 2016, 98, 330-339.	6.0	56
25	Multi-objective optimization of a novel reversible High-Temperature Heat Pump-Organic Rankine Cycle (HTHP-ORC) for industrial low-grade waste heat recovery. Energy Conversion and Management, 2019, 197, 111908.	9.2	55
26	Comparative evaluation of R1234yf, R1234ze(E) and R450A as alternatives to R134a in a variable speed reciprocating compressor. Energy, 2016, 114, 753-766.	8.8	54
27	Experimental exergy and energy analysis of a novel high-temperature heat pump with scroll compressor for waste heat recovery. Applied Energy, 2019, 253, 113504.	10.1	53
28	High temperature heat pump integration into district heating network. Energy Conversion and Management, 2020, 210, 112719.	9.2	52
29	Performance evaluation of an Organic Rankine Cycle (ORC) for power applications from low grade heat sources. Applied Thermal Engineering, 2015, 75, 763-769.	6.0	50
30	Experimental evaluation of HCFO-1233zd-E as HFC-245fa replacement in an Organic Rankine Cycle system for low temperature heat sources. Applied Thermal Engineering, 2016, 98, 954-961.	6.0	50
31	Optimisation of high-temperature heat pump cascades with internal heat exchangers using refrigerants with low global warming potential. Energy, 2018, 165, 1248-1258.	8.8	50
32	Experimental drop-in replacement of R404A for warm countries using the low GWP mixtures R454C and R455A. International Journal of Refrigeration, 2018, 91, 136-145.	3.4	48
33	Experimental exergy analysis of R513A to replace R134a in a small capacity refrigeration system. Energy, 2018, 162, 99-110.	8.8	47
34	Experimental study of an Organic Rankine Cycle with HFO-1336mzz-Z as a low global warming potential working fluid for micro-scale low temperature applications. Energy, 2017, 133, 79-89.	8.8	44
35	A simplified black-box model oriented to chilled water temperature control in a variable speed vapour compression system. Applied Thermal Engineering, 2011, 31, 329-335.	6.0	41
36	Experimental evaluation of a vapour compression plant performance using R134a, R407C and R22 as working fluids. Applied Thermal Engineering, 2004, 24, 1905-1917.	6.0	39

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37	Characterization and modeling of a scroll expander with air and ammonia as working fluid. Applied Thermal Engineering, 2014, 70, 630-640.	6.0	38
38	Experimental characterization of an ORC (organic Rankine cycle) for power and CHP (combined heat) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	8.8	37
39	Experimental evaluation of the internal heat exchanger influence on a vapour compression plant energy efficiency working with R22, R134a and R407C. Energy, 2005, 30, 621-636.	8.8	36
40	A vapour compression chiller fault detection technique based on adaptative algorithms. Application to on-line refrigerant leakage detection. International Journal of Refrigeration, 2006, 29, 716-723.	3.4	35
41	A low data requirement model of a variable-speed vapour compression refrigeration system based on neural networks. International Journal of Refrigeration, 2007, 30, 1452-1459.	3.4	34
42	R1234yf and R1234ze as alternatives to R134a in Organic Rankine Cycles for low temperature heat sources. Energy Procedia, 2017, 142, 1192-1198.	1.8	34
43	Experimental influence of an internal heat exchanger (IHX) using R513A and R134a in a vapor compression system. Applied Thermal Engineering, 2019, 147, 482-491.	6.0	31
44	Comparative study of transcritical vapor compression configurations using CO2 asÂrefrigeration mode base on simulation. Applied Thermal Engineering, 2013, 51, 1038-1046.	6.0	28
45	Comparative analysis of HFO-1234ze(E) and R-515B as low GWP alternatives to HFC-134a in moderately high temperature heat pumps. International Journal of Refrigeration, 2021, 124, 197-206.	3.4	28
46	Experimental evaluation of system modifications to increase R1234ze(E) cooling capacity. Applied Thermal Engineering, 2017, 111, 786-792.	6.0	26
47	Shell-and-tube evaporator model performance with different two-phase flow heat transfer correlations. Experimental analysis using R134a and R1234yf. Applied Thermal Engineering, 2014, 62, 80-89.	6.0	24
48	Steady-state model of a variable speed vapor compression system using R134a as working fluid. International Journal of Energy Research, 2010, 34, 933-945.	4.5	23
49	Application of a lumped model for predicting energy performance of a variable-speed vapour compression system. Applied Thermal Engineering, 2010, 30, 286-294.	6.0	23
50	A comparison between the modeling of a reciprocating compressor using artificial neural network and physical model. International Journal of Refrigeration, 2015, 59, 144-156.	3.4	23
51	Small capacity absorption systems for cooling and power with a scroll expander and ammonia based working fluids. Applied Thermal Engineering, 2014, 72, 258-265.	6.0	22
52	Experimental comparison of HFO-1234ze(E) and R-515B to replace HFC-134a in heat pump water heaters and moderately high temperature heat pumps. Applied Thermal Engineering, 2021, 196, 117256.	6.0	22
53	Development and validation of a micro-fin tubes evaporator model using R134a and R1234yf as working fluids. International Journal of Refrigeration, 2015, 50, 32-43.	3.4	16
54	HCFO-1224yd(Z) as HFC-245fa drop-in alternative in low temperature ORC systems: Experimental analysis in a waste heat recovery real facility. Energy, 2020, 193, 116701.	8.8	16

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55	Reactor noise analysis based on the singular value decomposition (SVD). Annals of Nuclear Energy, 1998, 25, 907-921.	1.8	15
56	Dynamic model of a shell-and-tube condenser. Analysis of the mean void fraction correlation influence on the model performance. Energy, 2013, 59, 521-533.	8.8	15
57	Combined cold, heat and power system, based on an organic Rankine cycle, using biomass as renewable heat source for energy saving and emissions reduction in a supermarket. Energy Procedia, 2017, 129, 652-659.	1.8	15
58	Thermo-economic optimization of small-scale Organic Rankine Cycle: A case study for low-grade industrial waste heat recovery. Energy, 2020, 213, 118898.	8.8	15
59	Theoretical performance evaluation of ejector and economizer with parallel compression configurations in high temperature heat pumps. International Journal of Refrigeration, 2020, 119, 356-365.	3.4	13
60	Analysis of the variation mechanism in the main energetic parameters in a single-stage vapour compression plant. Applied Thermal Engineering, 2007, 27, 167-176.	6.0	12
61	Time dependence of linear stability parameters of a BWR. Progress in Nuclear Energy, 2003, 43, 187-194.	2.9	11
62	BWR stability monitoring using adaptive methods. Annals of Nuclear Energy, 2003, 30, 755-773.	1.8	11
63	Boiling heat-transfer coefficient variation for R407C inside horizontal tubes of a refrigerating vapour-compression plantâ€™s shell-and-tube evaporator. Applied Energy, 2006, 83, 239-252.	10.1	11
64	Modeling of a PCM TES Tank Used as an Alternative Heat Sink for a Water Chiller. Analysis of Performance and Energy Savings. Energies, 2019, 12, 3652.	3.1	10
65	Conventional and Advanced Exergoeconomic Analysis of a Compound Ejector-Heat Pump for Simultaneous Cooling and Heating. Energies, 2021, 14, 3511.	3.1	9
66	A dynamic mathematical model of a shell-and-tube evaporator. validation with pure and blend refrigerants. International Journal of Energy Research, 2007, 31, 232-244.	4.5	8
67	Thermo-economic evaluation of low global warming potential alternatives to HFC-245fa in Organic Rankine Cycles. Energy Procedia, 2017, 142, 1199-1205.	1.8	8
68	Dual fluid trigeneration combined organic Rankine-compound ejector-multi evaporator vapour compression system. Energy Conversion and Management, 2022, 267, 115876.	9.2	6
69	Optimal refrigerant mixture in single-stage high-temperature heat pumps based on a multiparameter evaluation. Sustainable Energy Technologies and Assessments, 2022, 52, 101989.	2.7	5
70	Semi-empirical analysis of HFC supermarket refrigeration retrofit with advanced configurations from energy, environmental, and economic perspectives. International Journal of Refrigeration, 2022, 137, 257-271.	3.4	5
71	Considerations about evaporator thermal design in a vapour compression liquid chiller. Experimental analysis with HFC fluids (R134a and R407C). International Journal of Energy Research, 2004, 28, 1329-1341.	4.5	4
72	Automated modelling of complex refrigeration cycles through topological structure analysis. Applied Thermal Engineering, 2009, 29, 3529-3535.	6.0	2

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73	ITERATIVE DESIGN OF CONTROL SYSTEMS: AN APPROACH TO OVERCOME THE RESONANT EFFECT ON HEAT EXCHANGERS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 123-128.	0.4	1
74	High-Temperature Heat Pumps for Sustainable Industry. Advances in Sustainability Science and Technology, 2021, , 287-297.	0.6	1
75	High-temperature heat pump simulator (heatpack) for application in computer laboratory sessions for engineering students. Journal of Technology and Science Education, 2021, 11, 16.	1.2	1
76	HERRAMIENTA COMPUTACIONAL PARA ANALIZAR UN SISTEMA EXPERIMENTAL DE REFRIGERACIÃ“N USANDO HOJAS DE CALCULO. Dyna (Spain), 2014, 89, 608-615.	0.2	1