RamÃ³n Cabello LÃ³pez

List of Publications by Year
in descending order

82 papers	2,665 citations	159585 30 h-index	206112 48 g-index
84 all docs	84 docs citations	84 times ranked	1148 citing authors

#	Article	IF	Citations
1	Energy performance evaluation of R1234yf, R1234ze(E), R600a, R290 and R152a as low-GWP R134a alternatives. International Journal of Refrigeration, 2017, 74, 269-282.	3.4	224
2	Energy improvements of CO 2 transcritical refrigeration cycles using dedicated mechanical subcooling. International Journal of Refrigeration, 2015, 55, 129-141.	3.4	144
3	Subcooling methods for CO2 refrigeration cycles: A review. International Journal of Refrigeration, 2018, 93, 85-107.	3.4	130
4	Experimental evaluation of a CO2 transcritical refrigeration plant with dedicated mechanical subcooling. International Journal of Refrigeration, 2016, 69, 361-368.	3.4	119
5	Energetic evaluation of an internal heat exchanger in a CO2 transcritical refrigeration plant using experimental data. International Journal of Refrigeration, 2011, 34, 40-49.	3.4	110
6	Energy and environmental comparison of two-stage solutions for commercial refrigeration at low temperature: Fluids and systems. Applied Energy, 2015, 138, 133-142.	10.1	96
7	Experimental evaluation of the energy efficiency of a CO2 refrigerating plant working in transcritical conditions. Applied Thermal Engineering, 2008, 28, 1596-1604.	6.0	88
8	Experimental evaluation of a R134a/CO 2 cascade refrigeration plant. Applied Thermal Engineering, 2014, 73, 41-50.	6.0	62
9	Energy evaluation of R152a as drop in replacement for R134a in cascade refrigeration plants. Applied Thermal Engineering, 2017, 110, 972-984.	6.0	60
10	New positions for an internal heat exchanger in a CO2 supercritical refrigeration plant. Experimental analysis and energetic evaluation. Applied Thermal Engineering, 2014, 63, 129-139.	6.0	57
11	Experimental comparison between R152a and R134a working in a refrigeration facility equipped with a hermetic compressor. International Journal of Refrigeration, 2015, 60, 92-105.	3.4	57
12	Experimental evaluation of the inter-stage conditions of a two-stage refrigeration cycle using a compound compressor. International Journal of Refrigeration, 2009, 32, 307-315.	3.4	45
13	Influence of the superheat associated to a semihermetic compressor of a transcritical CO2 refrigeration plant. Applied Thermal Engineering, 2010, 30, 302-309.	6.0	43
14	A new approach to optimize the energy efficiency of CO2 transcritical refrigeration plants. Applied Thermal Engineering, 2014, 67, 137-146.	6.0	43
15	Experimental evaluation of an internal heat exchanger in a CO2 subcritical refrigeration cycle with gas-cooler. Applied Thermal Engineering, 2015, 80, 31-41.	6.0	43
16	Experimental determination of the optimum working conditions of a transcritical CO2 refrigeration plant with integrated mechanical subcooling. International Journal of Refrigeration, 2020, 113, 266-275.	3.4	41
17	Effects caused by the internal heat exchanger at the low temperature cycle in a cascade refrigeration plant. Applied Thermal Engineering, 2016, 103, 1077-1086.	6.0	40
18	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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19	A general methodology for energy comparison of intermediate configurations in two-stage vapour compression refrigeration systems. Energy, 2011, 36, 4119-4124.	8.8	39
20	Flat plate solar collector performance using alumina nanofluids: Experimental characterization and efficiency tests. PLoS ONE, 2019, 14, e0212260.	2.5	39
21	Energy analysis of dedicated and integrated mechanical subcooled CO2 boosters for supermarket applications. International Journal of Refrigeration, 2019, 101, 11-23.	3.4	38
22	Comparative life cycle assessment of commonly used refrigerants in commercial refrigeration systems. International Journal of Life Cycle Assessment, 2007, 12, 299-307.	4.7	37
23	Performance evaluation of R404A and R507A refrigerant mixtures in an experimental double-stage vapour compression plant. Applied Energy, 2010, 87, 1546-1553.	10.1	37
24	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
25	Experimental analysis of energy performance of modified single-stage CO2 transcritical vapour compression cycles based on vapour injection in the suction line. Applied Thermal Engineering, 2012, 47, 86-94.	6.0	36
26	Energy assessment and environmental impact analysis of an R134a/R744 cascade refrigeration plant upgraded with the low-GWP refrigerants R152a, R1234ze(E), propane (R290) and propylene (R1270). International Journal of Refrigeration, 2019, 104, 321-334.	3.4	36
27	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
28	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
29	Improvements in the cooling capacity and the COP of a transcritical CO2 refrigeration plant operating with a thermoelectric subcooling system. Applied Thermal Engineering, 2019, 155, 110-122.	6.0	33
30	Experimental analysis of R-450A and R-513A as replacements of R-134a and R-507A in a medium temperature commercial refrigeration system. International Journal of Refrigeration, 2017, 84, 52-66.	3.4	31
31	Conversion of a direct to an indirect commercial (HFC134a/CO 2) cascade refrigeration system: Energy impact analysis. International Journal of Refrigeration, 2017, 73, 183-199.	3.4	31
32	Thermodynamic screening of alternative refrigerants for R290 and R600a. Results in Engineering, 2020, 5, 100081.	5.1	31
33	A simplified model for shell-and-tubes heat exchangers: Practical application. Applied Thermal Engineering, 2010, 30, 1231-1241.	6.0	30
34	CO2 with Mechanical Subcooling vs. CO2 Cascade Cycles for Medium Temperature Commercial Refrigeration Applications Thermodynamic Analysis. Applied Sciences (Switzerland), 2017, 7, 955.	2.5	30
35	Development and validation of a finite element model for water â€“ CO2 coaxial gas-coolers. Applied Energy, 2012, 93, 637-647.	10.1	29
36	R-454C, R-459B, R-457A and R-455A as low-GWP replacements of R-404A: Experimental evaluation and optimization. International Journal of Refrigeration, 2019, 106, 133-143.	3.4	27

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37	TEWI analysis of a stand-alone refrigeration system using low-GWP fluids with leakage ratio consideration. International Journal of Refrigeration, 2020, 118, 279-289.	3.4	26
38	HCFC-22 replacement with drop-in and retrofit HFC refrigerants in a two-stage refrigeration plant for low temperature. International Journal of Refrigeration, 2012, 35, 810-816.	3.4	25
39	Energy Evaluation of Multiple Stage Commercial Refrigeration Architectures Adapted to F-Gas Regulation. Energies, 2018, 11, 1915.	3.1	25
40	Energetic evaluation of a CO2 refrigeration plant working in supercritical and subcritical conditions. Applied Thermal Engineering, 2014, 66, 227-238.	6.0	24
41	R-152a as an alternative refrigerant to R-134a in domestic refrigerators: An experimental analysis. International Journal of Refrigeration, 2018, 96, 106-116.	3.4	24
42	Experimental enhancement of a CO2 transcritical refrigerating plant including thermoelectric subcooling. International Journal of Refrigeration, 2020, 120, 178-187.	3.4	24
43	On-site real-time evaluation of an air-conditioning direct-fired double-effect absorption chiller. Applied Energy, 2009, 86, 968-975.	10.1	23
44	On-site study of HCFC-22 substitution for HFC non-azeotropic blends (R417A, R422D) on a water chiller of a centralized HVAC system. Energy and Buildings, 2010, 42, 1561-1566.	6.7	23
45	Energy impact evaluation of different low-GWP alternatives to replace R134a in a beverage cooler. Experimental analysis and optimization for the pure refrigerants R152a, R1234yf, R290, R1270, R600a and R744. Energy Conversion and Management, 2022, 256, 115388.	9.2	23
46	Simplified steady-state modelling of a single stage vapour compression plant. Model development and validation. Applied Thermal Engineering, 2005, 25, 1740-1752.	6.0	21
47	Experimental evaluation of HCFC-22 replacement by the drop-in fluids HFC-422A and HFC-417B for low temperature refrigeration applications. Applied Thermal Engineering, 2011, 31, 1323-1331.	6.0	21
48	A comparative analysis of a CO2 evaporator model using experimental heat transfer correlations and a flow pattern map. International Journal of Heat and Mass Transfer, 2014, 71, 361-375.	4.8	21
49	Experimental determination of the optimum intermediate and gas-cooler pressures of a commercial transcritical CO2 refrigeration plant with parallel compression. Applied Thermal Engineering, 2021, 189, 116671.	6.0	21
50	Experimental assessment of dedicated and integrated mechanical subcooling systems vs parallel compression in transcritical CO2 refrigeration plants. Energy Conversion and Management, 2022, 252, 115051.	9.2	21
51	Experimental determination of the optimum working conditions of a commercial transcritical CO2 refrigeration plant with a R-152a dedicated mechanical subcooling.. International Journal of Refrigeration, 2021, 121, 258-268.	3.4	19
52	Experimental Analysis and Optimization of an R744 Transcritical Cycle Working with a Mechanical Subcooling System. Energies, 2020, 13, 3204.	3.1	18
53	A dynamic model of a shell-and-tube condenser operating in a vapour compression refrigeration plant. International Journal of Thermal Sciences, 2008, 47, 926-934.	4.9	17
54	Comparative evaluation of the intermediate systems employed in two-stage refrigeration cycles driven by compound compressors. Energy, 2010, 35, 1274-1280.	8.8	17

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55	Experimental assessment of a thermoelectric subcooler included in a transcritical CO2 refrigeration plant. Applied Thermal Engineering, 2021, 190, 116826.	6.0	17
56	Thermodynamic Analysis of a CO2 Refrigeration Cycle with Integrated Mechanical Subcooling. Energies, 2020, 13, 4.	3.1	15
57	Experimental Energetic Analysis of the Liquid Injection Effect in a Two-Stage Refrigeration Facility Using a Compound Compressor. HVAC and R Research, 2007, 13, 819-831.	0.6	14
58	Experimental Energetic Analysis of the Subcooler System in a Two-Stage Refrigeration Facility Driven by a Compound Compressor. HVAC and R Research, 2009, 15, 583-596.	0.6	14
59	R-407H as drop-in of R-404A. Experimental analysis in a low temperature direct expansion commercial refrigeration system. International Journal of Refrigeration, 2017, 80, 11-23.	3.4	14
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	Energy assessment of an R134a refrigeration plant upgraded to an indirect system using R152a and R1234ze(E) as refrigerants. Applied Thermal Engineering, 2018, 139, 121-134.	6.0	12
62	Improvements in CO2 Booster Architectures with Different Economizer Arrangements. Energies, 2020, 13, 1271.	3.1	12
63	Experimental evaluation of a transcritical CO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math> refrigeration facility working with an internal heat exchanger and a thermoelectric subcooler: Performance assessment and comparative. International Journal of Refrigeration, 2022, 141, 66-75.	3.4	12
64	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
65	Energy influence of the IHX with R22 drop-in and long-term substitutes in refrigeration plants. Applied Thermal Engineering, 2013, 50, 260-267.	6.0	11
66	Effect of plasticizer on the thermal, mechanical, and anticorrosion properties of an epoxy primer. Journal of Coatings Technology Research, 2005, 2, 557-564.	2.5	10
67	Energy impact of the Internal Heat Exchanger in a horizontal freezing cabinet. Experimental evaluation with the R404A low-GWP alternatives R454C, R455A, R468A, R290 and R1270. International Journal of Refrigeration, 2022, 137, 22-33.	3.4	9
68	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
69	Experimental assessment of different extraction points for the integrated mechanical subcooling system of a CO2 transcritical plant. International Journal of Refrigeration, 2022, 136, 8-16.	3.4	7
70	Energy evaluation of a low temperature commercial refrigeration plant working with the new low-GWP blend R468A as drop-in of R404A. International Journal of Refrigeration, 2021, 127, 1-11.	3.4	6
71	Comparative life cycle assessment of commonly used refrigerants in commercial refrigeration systems. International Journal of Life Cycle Assessment, 2007, 12, 299-307.	4.7	6
72	Experimental Evaluation of the Energy Performance of an Air Vortex Tube when the Inlet Parameters are Varied. The Open Mechanical Engineering Journal, 2013, 7, 98-107.	0.3	6

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73	Conversion of a Direct to an Indirect Refrigeration System at Medium Temperature Using R-134a and R-507A: An Energy Impact Analysis. Applied Sciences (Switzerland), 2018, 8, 247.	2.5	5
74	Experimental evaluation of the desuperheater influence in a CO2 booster refrigeration facility. Applied Thermal Engineering, 2020, 168, 114785.	6.0	5
75	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
76	Second-law analysis of two-stage vapour compression refrigeration plants. International Journal of Exergy, 2010, 7, 641.	0.4	4
77	A3 and A2 refrigerants: Border determination and hunt for A2 low-GWP blends. International Journal of Refrigeration, 2022, 134, 86-94.	3.4	3
78	Drop-in substitutes for R-600a. Experimental evaluation and optimization of a commercial fridge. Applied Thermal Engineering, 2022, 211, 118490.	6.0	2
79	Refrigerants for Vapor Compression Refrigeration Systems. Heat Transfer, 2017, , 463-522.	0.0	1
80	Experimental validation and development of an advanced computational model of a transcritical carbon dioxide vapour compression cycle with a thermoelectric subcooling system. Applied Thermal Engineering, 2022, 206, 118045.	6.0	1
81	CO2LD: An innovation educational project for High Degree Professional Training in Refrigeration. Journal of Technology and Science Education, 2013, 3, .	1.2	0
82	Current limits of CO2 compressors working in integrated mechanical subcooling cycles. IOP Conference Series: Materials Science and Engineering, 2021, 1180, 012058.	0.6	0