Wilfrido Rivera

List of Publications by Year
in descending order

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105 papers	3,298 citations	172386 29 h-index	161767 54 g-index
106 all docs	106 docs citations	106 times ranked	2105 citing authors

#	Article	IF	Citations
1	Modeling of a thermodynamic cycle integrating a dual and a triple-pressure cogeneration cycle. Applied Thermal Engineering, 2022, 201, 117705.	3.0	5
2	Cooling Potential for Single and Advanced Absorption Cooling Systems in a Geothermal Field in Mexico. Processes, 2022, 10, 583.	1.3	3
3	Thermodynamic simulation of an absorption heat pump-transformer-power cycle operating with the ammonia-water mixture. Applied Thermal Engineering, 2021, 182, 116174.	3.0	8
4	Thermodynamic cycles for the simultaneous production of power and cooling: A comprehensive review. International Journal of Energy Research, 2021, 45, 12500-12535.	2.2	7
5	Analysis of an integrated thermal separation and flashing cooling cogeneration cycle. Applied Thermal Engineering, 2021, 190, 116773.	3.0	5
6	A review on solar photovoltaic thermal integrated desalination technologies. Renewable and Sustainable Energy Reviews, 2021, 141, 110787.	8.2	127
7	Experimental Performance of a Membrane Desorber Operating under Simulated Warm Weather Condensation Temperatures. Membranes, 2021, 11, 474.	1.4	4
8	A Cascade Proportional Integral Derivative Control for a Plate-Heat-Exchanger-Based Solar Absorption Cooling System. Energies, 2021, 14, 4058.	1.6	5
9	Evaluation of the cooling potential for a single effect absorption cooling system in the PR2 well of Cerritos Colorados geothermal field, Mexico. Energy Exploration and Exploitation, 2020, 38, 2521-2540.	1.1	4
10	Design and analysis of cooling co-generation cycle using aqua-ammonia as working fluid. Thermal Science and Engineering Progress, 2020, 20, 100744.	1.3	2
11	Role of Membrane Technology in Absorption Heat Pumps: A Comprehensive Review. Membranes, 2020, 10, 216.	1.4	9
12	Investigation of new cooling cogeneration cycle using NH3H2O mixture. International Journal of Refrigeration, 2020, 114, 88-97.	1.8	13
13	Feasibility Analysis of a Membrane Desorber Powered by Thermal Solar Energy for Absorption Cooling Systems. Applied Sciences (Switzerland), 2020, 10, 1110.	1.3	7
14	Modeling of Novel Thermodynamic Cycles to Produce Power and Cooling Simultaneously. Processes, 2020, 8, 320.	1.3	14
15	Modeling of a Double Effect Heat Transformer Operating with Water/Lithium Bromide. Processes, 2019, 7, 371.	1.3	3
16	Thermodynamic analysis of a novel absorption heat transformer. Applied Thermal Engineering, 2019, 162, 114268.	3.0	9
17	Thermodynamic Analysis of a Half-Effect Absorption Cooling System Powered by a Low-Enthalpy Geothermal Source. Applied Sciences (Switzerland), 2019, 9, 1220.	1.3	5
18	Experimental assessment of an air-cooled absorption cooling system. Applied Thermal Engineering, 2019, 155, 147-156.	3.0	12

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19	Boiling Heat Transfer Coefficients in a Falling Film Helical Coil Heat Exchanger for the NH3â€“LiNO3 Mixture. Journal of Heat Transfer, 2019, 141, .	1.2	1
20	Wind speed variability study based on the Hurst coefficient and fractal dimensional analysis. Energy Science and Engineering, 2019, 7, 361-378.	1.9	22
21	Parametric analysis on the experimental performance of an ammonia/water absorption cooling system built with plate heat exchangers. Applied Thermal Engineering, 2019, 148, 87-95.	3.0	24
22	Experimental assessment of double-absorption heat transformer operating with H2O/LiBr. Applied Thermal Engineering, 2018, 132, 432-440.	3.0	14
23	Novel intermittent absorption cooling system based on membrane separation process. Applied Thermal Engineering, 2018, 136, 718-729.	3.0	13
24	Modeling of a new absorption heat pump-transformer used to produce heat and power simultaneously. Energy, 2018, 165, 112-133.	4.5	12
25	Preliminary assessment of a solar absorption air conditioning pilot plant. Case Studies in Thermal Engineering, 2018, 12, 672-676.	2.8	10
26	Single-effect ammonia/lithium nitrate heat pump-transformer: A technology for process heat recycling. International Journal of Energy Research, 2018, 42, 4085-4096.	2.2	2
27	Parametric analysis on the performance of an experimental ammonia/lithium nitrate absorption cooling system. International Journal of Energy Research, 2018, 42, 4402-4416.	2.2	12
28	Experimental assessment of a hydrophobic membrane-based desorber/condenser with H2O/LiBr mixture for absorption systems. Experimental Thermal and Fluid Science, 2017, 88, 145-159.	1.5	44
29	Comparison of single and double stage absorption and resorption heat transformers operating with the ammonia-lithium nitrate mixture. Applied Thermal Engineering, 2017, 125, 53-68.	3.0	15
30	Experimental energy and exergy analysis of a novel water-LiBr absorption system. International Journal of Exergy, 2017, 23, 31.	0.2	2
31	Preliminary Assessment of a Solar Absorption System for Air Conditioning Applications. , 2017, , .		0
32	Wind Speed Prediction Using a Univariate ARIMA Model and a Multivariate NARX Model. Energies, 2016, 9, 109.	1.6	213
33	Experimental assessment of an absorption cooling system utilizing a falling film absorber and generator. Applied Thermal Engineering, 2016, 103, 1105-1111.	3.0	19
34	Characteristics of an ammonia/lithium nitrate double effect heat pump-transformer. Applied Thermal Engineering, 2016, 99, 518-527.	3.0	10
35	Neural network and polynomial model to improve the coefficient of performance prediction for solar intermittent refrigeration system. Solar Energy, 2016, 129, 28-37.	2.9	15
36	Wind speed forecasting using the NARX model, case: La Mata, Oaxaca, MÃ©xico. Neural Computing and Applications, 2016, 27, 2417-2428.	3.2	46

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37	Performance comparison between a conventional vapor compression and compression-absorption single-stage and double-stage systems used for refrigeration. Applied Thermal Engineering, 2015, 87, 273-285.	3.0	59
38	A review of absorption heat transformers. Applied Thermal Engineering, 2015, 91, 654-670.	3.0	89
39	A review of thermal cooling systems. Applied Thermal Engineering, 2015, 75, 1162-1175.	3.0	100
40	Energy and Exergy Analysis of Water-LiBr Absorption Systems with Adiabatic Absorbers for Heating and Cooling. Energy Procedia, 2014, 57, 2676-2685.	1.8	17
41	Experimental assessment of an absorption cooling system operating with the ammonia/lithium nitrate mixture. Energy, 2014, 78, 685-692.	4.5	31
42	Comparison of the Performance of Single Effect, Half Effect, Double Effect in Series and Inverse Absorption Cooling Systems Operating with the Mixture H2O-LiBr. Energy Procedia, 2014, 57, 2534-2543.	1.8	14
43	Comparison of the performance of single-effect, half-effect, double-effect in series and inverse and triple-effect absorption cooling systems operating with the NH3â€“LiNO3 mixture. Applied Thermal Engineering, 2014, 66, 612-620.	3.0	49
44	Analysis of the behavior of an experimental absorption heat transformer for water purification for different mass flux rates in the generator. Applied Thermal Engineering, 2013, 52, 38-45.	3.0	22
45	A novel cogeneration system: A proton exchange membrane fuel cell coupled to a heat transformer. Applied Thermal Engineering, 2013, 50, 1530-1535.	3.0	20
46	Comparative study of a cascade cycle for simultaneous refrigeration and heating operating with ammonia, R134a, butane, propane, and CO₂as working fluids. International Journal of Sustainable Energy, 2012, 31, 365-381.	1.3	19
47	Comparison of the experimental evaluation of a solar intermittent refrigeration system for ice production operating with the mixtures NH3/LiNO3 and NH3/LiNO3/H2O. Renewable Energy, 2012, 38, 62-68.	4.3	50
48	Optimal COP prediction of a solar intermittent refrigeration system for ice production by means of direct and inverse artificial neural networks. Solar Energy, 2012, 86, 1108-1117.	2.9	26
49	State of the Art of Sorption Refrigeration Systems. Green Energy and Technology, 2011, , 55-73.	0.4	3
50	Experimental Evaluation of a Solar Intermittent Refrigerator Working With the Mixtures NH3 â€“ LiNO3 and NH3 â€“ LiNO3 â€“ H2O. , 2011, , .		0
51	Thermodynamic analysis of a trigeneration system consisting of a micro gas turbine and a double effect absorption chiller. Applied Thermal Engineering, 2011, 31, 3347-3353.	3.0	77
52	Exergy analysis of an experimental single-stage heat transformer operating with single water/lithium bromide and using additives (1-octanol and 2-ethyl-1-hexanol). Applied Thermal Engineering, 2011, 31, 3526-3532.	3.0	40
53	Exergy analysis of an experimental heat transformer for water purification. Energy, 2011, 36, 320-327.	4.5	57
54	Optimal operation conditions for a single-stage heat transformer by means of an artificial neural network inverse. Applied Energy, 2011, 88, 1281-1290.	5.1	25

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55	Evaluation of a solar intermittent refrigeration system for ice production operating with ammonia/lithium nitrate. Solar Energy, 2011, 85, 38-45.	2.9	52
56	Cogeneration Fuel Cell-Sorption Air Conditioning Systems. Green Energy and Technology, 2011, , .	0.4	22
57	Development of a Aolar Intermittent Refrigeration System for Ice Production. , 2011, , .		5
58	Sorption Refrigeration Systems. Green Energy and Technology, 2011, , 75-102.	0.4	0
59	Exergetic and exergoeconomic optimization of a cogeneration pulp and paper mill plant including the use of a heat transformer. Energy, 2010, 35, 1289-1299.	4.5	27
60	Energy and exergy analysis of an experimental single-stage heat transformer operating with the water/lithium bromide mixture. International Journal of Energy Research, 2010, 34, 1121-1131.	2.2	24
61	Exergy analysis of a heat transformer for water purification increasing heat source temperature. Applied Thermal Engineering, 2010, 30, 2088-2095.	3.0	42
62	Analysis and forecasting of wind velocity in chetumal, quintana roo, using the single exponential smoothing method. Renewable Energy, 2010, 35, 925-930.	4.3	89
63	Wind speed forecasting in three different regions of Mexico, using a hybrid ARIMAâ€“ANN model. Renewable Energy, 2010, 35, 2732-2738.	4.3	335
64	Energy and exergy analysis of a double absorption heat transformer operating with water/lithium bromide. International Journal of Energy Research, 2009, 33, 662-674.	2.2	41
65	Short term wind speed forecasting in La Venta, Oaxaca, MÃ©xico, using artificial neural networks. Renewable Energy, 2009, 34, 274-278.	4.3	280
66	Simulation of an air conditioning absorption refrigeration system in a co-generation process combining a proton exchange membrane fuel cell. International Journal of Hydrogen Energy, 2007, 32, 3174-3182.	3.8	33
67	Experimental study of a thermo-chemical refrigerator using the barium chlorideâ€“ammonia reaction. International Journal of Hydrogen Energy, 2007, 32, 3154-3158.	3.8	20
68	Wind speed forecasting in the South Coast of Oaxaca, MÃ©xico. Renewable Energy, 2007, 32, 2116-2128.	4.3	189
69	Experimental study of the use of additives in the performance of a single-stage heat transformer operating with water-lithium bromide. International Journal of Energy Research, 2005, 29, 121-130.	2.2	29
70	Performance evaluation of a monomethylamineâ€“water solar absorption refrigeration system for milk cooling purposes. Applied Thermal Engineering, 2004, 24, 1103-1115.	3.0	21
71	Boiling heat transfer coefficients inside a vertical smooth tube for the water/lithium bromide mixture. International Journal of Energy Research, 2003, 27, 265-275.	2.2	5
72	Single stage and double absorption heat transformers used to recover energy in a distillation column of butane and pentane. International Journal of Energy Research, 2003, 27, 1279-1292.	2.2	57

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73	Modeling of an intermittent solar absorption refrigeration system operating with ammoniaâ€“lithium nitrate mixture. Solar Energy Materials and Solar Cells, 2003, 76, 417-427.	3.0	58
74	Theoretical and experimental comparison of the performance of a single-stage heat transformer operating with water/lithium bromide and water/Carrolâ„¢. International Journal of Energy Research, 2002, 26, 747-762.	2.2	36
75	Theoretical comparison of performance of an absorption heat pump system for cooling and heating operating with an aqueous ternary hydroxide and water/lithium bromide. Applied Thermal Engineering, 2001, 21, 1137-1147.	3.0	31
76	Comparison of the modeling of a solar absorption system for simultaneous cooling and heating operating with an aqueous ternary hydroxide and with water/lithium bromide. Solar Energy Materials and Solar Cells, 2001, 70, 301-308.	3.0	20
77	Heat transfer coefficients in two phase flow for the water/lithium bromide mixture used in solar absorption refrigeration systems. Solar Energy Materials and Solar Cells, 2001, 70, 309-320.	3.0	24
78	Single-stage and advanced absorption heat transformers operating with lithium bromide mixtures used to increase solar pond's temperature. Solar Energy Materials and Solar Cells, 2001, 70, 321-333.	3.0	30
79	Thermodynamic analysis of monomethylamineâ€“water solutions in a single-stage solar absorption refrigeration cycle at low generator temperatures. Solar Energy Materials and Solar Cells, 2001, 70, 287-300.	3.0	43
80	Experimental evaluation of a single-stage heat transformer used to increase solar pondâ€™s temperature. Solar Energy, 2000, 69, 369-376.	2.9	32
81	Comparison of the theoretical performance of a solar air conditioning system operating with water/lithium bromide and an aqueous ternary hydroxide. Solar Energy Materials and Solar Cells, 2000, 63, 387-399.	3.0	25
82	Evaluation of a heat transformer powered by a solar pond. Solar Energy Materials and Solar Cells, 2000, 63, 413-422.	3.0	21
83	Heat transfer coefficients in two-phase flow for mixtures used in solar absorption refrigeration systems. Solar Energy Materials and Solar Cells, 2000, 63, 401-411.	3.0	8
84	Experimental evaluation of a single-stage heat transformer operating with the water/Carrolâ„¢ mixture. Energy, 1999, 24, 317-326.	4.5	29
85	Boiling heat transfer coefficients inside a vertical smooth tube for water/ammonia and ammonia lithium nitrate mixtures. International Journal of Heat and Mass Transfer, 1999, 42, 905-921.	2.5	38
86	Theoretical comparison of single stage and advanced absorption heat transformers operating with water/lithium bromide and water/Carrol mixtures. International Journal of Energy Research, 1998, 22, 427-442.	2.2	18
87	Thermodynamic design data for absorption heat transformers. Part seven: operating on an aqueous ternary hydroxide. Applied Thermal Engineering, 1998, 18, 147-156.	3.0	10
88	Mobile pilot-plant for the production of environmentally clean steam. Applied Thermal Engineering, 1997, 17, 317-326.	3.0	4
89	Modelling of single-stage and advanced absorption heat transformers operating with the water/carrol mixture. Applied Thermal Engineering, 1997, 17, 1111-1122.	3.0	18
90	Thermodynamic design data for absorption heat pump systems operating on monomethylamine-water. Part I: Cooling. Heat Recovery Systems & CHP, 1995, 15, 563-570.	0.4	3

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91	Thermodynamic design data for absorption heat pump systems operating on monomethylamine-water. Part III: Simultaneous cooling and heating. Heat Recovery Systems & CHP, 1995, 15, 583-589.	0.4	2
92	Thermodynamic design data for absorption heat pump systems operating on water-carrol. Part I: Cooling. Heat Recovery Systems & CHP, 1995, 15, 425-434.	0.4	6
93	Thermodynamic design data for absorption heat pump systems operating on water-carrol. Part II: Heating. Heat Recovery Systems & CHP, 1995, 15, 435-444.	0.4	1
94	Thermodynamic design data for absorption heat pump systems operating on water-carrol. Part III: Simultaneous cooling and heating. Heat Recovery Systems & CHP, 1995, 15, 445-456.	0.4	2
95	Thermodynamic design data for absorption heat pump systems operating on monomethylamine-water. Part II: Heating. Heat Recovery Systems & CHP, 1995, 15, 571-581.	0.4	1
96	Thermodynamic design data for absorption heat transformers. Part six: Operating on water-carrol. Heat Recovery Systems & CHP, 1994, 14, 427-436.	0.4	18
97	Thermodynamic study of advanced absorption heat transformersâ€"I. Single and two stage configurations with heat exchangers. Heat Recovery Systems & CHP, 1994, 14, 173-183.	0.4	51
98	Thermodynamic study of advanced absorption heat transformersâ€"II. Double absorption configurations. Heat Recovery Systems & CHP, 1994, 14, 185-193.	0.4	27
99	Thermodynamic design data for absorption heat pump systems operating on ammonia-sodium thiocyanateâ€"I. Cooling. Heat Recovery Systems & CHP, 1993, 13, 1-9.	0.4	8
100	Thermodynamic design data for absorption heat pump systems operating on ammonia-sodium thiocyanateâ€"II. Heating. Heat Recovery Systems & CHP, 1993, 13, 11-21.	0.4	3
101	Thermodynamic design data for absorption heat pump systems operating on ammonia-sodium thiocyanateâ€"III. Simultaneous cooling and heating. Heat Recovery Systems & CHP, 1993, 13, 23-31.	0.4	5
102	Thermodynamic design data for absorption heat transformersâ€"Part 5. Operating on ammonia-sodium thiocyanate. Heat Recovery Systems & CHP, 1992, 12, 347-356.	0.4	5
103	Thermodynamic design data for absorption heat pump systems operating on ammonia-lithium nitrateâ€"part three. Simultaneous cooling and heating. Heat Recovery Systems & CHP, 1991, 11, 199-212.	0.4	10
104	Thermodynamic design data for absorption heat pump systems operating on ammonia-lithium nitrateâ€"Part two. Heating. Heat Recovery Systems & CHP, 1991, 11, 103-111.	0.4	17
105	Thermodynamic design data for absorption heat transformersâ€"part four. operating on ammonia-lithium nitrate. Heat Recovery Systems & CHP, 1990, 10, 539-548.	0.4	8