Brian Elmegaard

List of Publications by Year
in descending order

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84	3,500	94269	149479
papers	citations	37	56
		h-index	g-index

86	86	86	2716
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optimal operation strategies of compressed air energy storage (CAES) on electricity spot markets with fluctuating prices. Applied Thermal Engineering, 2009, 29, 799-806.	3.0	223
2	Multi-objective optimization of organic Rankine cycles for waste heat recovery: Application in an offshore platform. Energy, 2013, 58, 538-549.	4.5	170
3	Energy and environmental performance assessment of R744 booster supermarket refrigeration systems operating in warm climates. International Journal of Refrigeration, 2016, 64, 61-79.	1.8	136
4	Exergy analysis and optimization of a biomass gasification, solid oxide fuel cell and micro gas turbine hybrid system. Energy, 2011, 36, 4740-4752.	4.5	134
5	Technoeconomic analysis of a methanol plant based on gasification of biomass and electrolysis of water. Energy, 2010, 35, 2338-2347.	4.5	132
6	Integration of large-scale heat pumps in the district heating systems of Greater Copenhagen. Energy, 2016, 107, 321-334.	4.5	105
7	Technoeconomic analysis of a low CO2 emission dimethyl ether (DME) plant based on gasification of torrefied biomass. Energy, 2010, 35, 4831-4842.	4.5	101
8	Comparison of linear, mixed integer and non-linear programming methods in energy system dispatch modelling. Energy, 2014, 74, 109-118.	4.5	85
9	Industrial excess heat for district heating in Denmark. Applied Energy, 2017, 205, 991-1001.	5.1	80
10	Analysis of temperature glide matching of heat pumps with zeotropic working fluid mixtures for different temperature glides. Energy, 2018, 153, 650-660.	4.5	77
11	Advanced exergy analysis of a R744 booster refrigeration system with parallel compression. Energy, 2016, 107, 562-571.	4.5	73
12	Lowering district heating temperatures â€“ Impact to system performance in current and future Danish energy scenarios. Energy, 2016, 94, 273-291.	4.5	72
13	Energy, exergy and advanced exergy analysis of a milk processing factory. Energy, 2018, 162, 576-592.	4.5	72
14	Decentralized combined heat and power production by two-stage biomass gasification and solid oxide fuel cells. Energy, 2013, 58, 527-537.	4.5	69
15	Methodologies for predicting the part-load performance of aero-derivative gas turbines. Energy, 2009, 34, 1484-1492.	4.5	68
16	Energy and exergy analyses of the Danish industry sector. Applied Energy, 2016, 184, 1447-1459.	5.1	67
17	Integration of space heating and hot water supply in low temperature district heating. Energy and Buildings, 2016, 124, 255-264.	3.1	67
18	Heat pumps in combined heat and power systems. Energy, 2014, 76, 989-1000.	4.5	66

#	Article	IF	Citations
19	Thermodynamic analysis of small-scale dimethyl ether (DME) and methanol plants based on the efficient two-stage gasifier. Energy, 2011, 36, 5805-5814.	4.5	65
20	Performance of ultra low temperature district heating systems with utility plant and booster heat pumps. Energy, 2017, 137, 544-555.	4.5	62
21	Condensation heat transfer and pressure drop characteristics of R134a, R1234ze(E), R245fa and R1233zd(E) in a plate heat exchanger. International Journal of Heat and Mass Transfer, 2019, 128, 136-149.	2.5	61
22	Exergetic assessment of energy systems on North Sea oil and gas platforms. Energy, 2013, 62, 23-36.	4.5	60
23	Technical and economic working domains of industrial heat pumps: Part 1 â€“ Single stage vapour compression heat pumps. International Journal of Refrigeration, 2015, 55, 168-182.	1.8	60
24	Energy efficiency measures for offshore oil and gas platforms. Energy, 2016, 117, 325-340.	4.5	58
25	Technical and economic working domains of industrial heat pumps: Part 2 â€“ Ammonia-water hybrid absorption-compression heat pumps. International Journal of Refrigeration, 2015, 55, 183-200.	1.8	54
26	Design of centrifugal compressors for heat pump systems. Applied Energy, 2018, 232, 139-156.	5.1	50
27	CO2-mitigation options for the offshore oil and gas sector. Applied Energy, 2016, 161, 673-694.	5.1	48
28	On the development of high temperature ammoniaâ€“water hybrid absorptionâ€“compression heat pumps. International Journal of Refrigeration, 2015, 58, 79-89.	1.8	47
29	Performance of residential air-conditioning systems with flow maldistribution in fin-and-tube evaporators. International Journal of Refrigeration, 2011, 34, 696-706.	1.8	46
30	Thermodynamic analysis of an upstream petroleum plant operated on a mature field. Energy, 2014, 68, 454-469.	4.5	46
31	Comparison between a 1D and a 2D numerical model of an active magnetic regenerative refrigerator. Journal Physics D: Applied Physics, 2008, 41, 105002.	1.3	44
32	Exergy destruction and losses on four North Sea offshore platforms: A comparative study of the oil and gas processing plants. Energy, 2014, 74, 45-58.	4.5	44
33	Modelling refrigerant distribution in microchannel evaporators. International Journal of Refrigeration, 2009, 32, 1736-1743.	1.8	43
34	On the definition of exergy efficiencies for petroleum systems: Application to offshore oil and gas processing. Energy, 2014, 73, 264-281.	4.5	43
35	A comparative assessment of electrification strategies for industrial sites: Case of milk powder production. Applied Energy, 2019, 250, 1383-1401.	5.1	42
36	Thermodynamic competitiveness of high temperature vapor compression heat pumps for boiler substitution. Energy, 2019, 182, 110-121.	4.5	42

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37	Spatiotemporal and economic analysis of industrial excess heat as a resource for district heating. Energy, 2018, 151, 715-728.	4.5	38
38	Assessment of a combination of three heat sources for heat pumps to supply district heating. Energy, 2019, 176, 156-170.	4.5	38
39	Thermodynamic comparison of three small-scale gas liquefaction systems. Applied Thermal Engineering, 2018, 128, 712-724.	3.0	37
40	Economic feasibility of ultra-low temperature district heating systems in newly built areas supplied by renewable energy. Energy, 2020, 191, 116496.	4.5	37
41	Heat pump working fluid selectionâ€"economic and thermodynamic comparison of criteria and boundary conditions. International Journal of Refrigeration, 2019, 98, 500-513.	1.8	36
42	Life performance of oil and gas platforms: Site integration and thermodynamic evaluation. Energy, 2014, 73, 282-301.	4.5	34
43	Condensation heat transfer and pressure drop characteristics of zeotropic mixtures of R134a/R245fa in plate heat exchangers. International Journal of Heat and Mass Transfer, 2021, 164, 120577.	2.5	32
44	Modelling distribution of evaporating CO2 in parallel minichannels. International Journal of Refrigeration, 2010, 33, 1086-1094.	1.8	31
45	Dynamic exergoeconomic analysis of a heat pump system used for ancillary services in an integrated energy system. Energy, 2018, 152, 154-165.	4.5	31
46	Design of serially connected district heating heat pumps utilising a geothermal heat source. Energy, 2017, 137, 865-877.	4.5	29
47	Allocation of investment costs for large-scale heat pumps supplying district heating. Energy Procedia, 2018, 147, 358-367.	1.8	28
48	Optimizing control of two-stage ammonia heat pump for fast regulation of power uptake. Applied Energy, 2020, 271, 115126.	5.1	25
49	Oil and gas platforms with steam bottoming cycles: System integration and thermoenvironomic evaluation. Applied Energy, 2014, 131, 222-237.	5.1	24
50	Condensation heat transfer and pressure drop correlations in plate heat exchangers for heat pump and organic Rankine cycle systems. Applied Thermal Engineering, 2021, 183, 116231.	3.0	24
51	Combined provision of primary frequency regulation from Vehicle-to-Grid (V2G) capable electric vehicles and community-scale heat pump. Sustainable Energy, Grids and Networks, 2020, 23, 100382.	2.3	23
52	Compensation of flow maldistribution in fin-and-tube evaporators for residential air-conditioning. International Journal of Refrigeration, 2011, 34, 1230-1237.	1.8	22
53	Cogeneration from poultry industry wastes: Indirectly fired gas turbine application. Energy, 2006, 31, 1417-1436.	4.5	21
54	Evaluation of energy saving potentials, costs and uncertainties in the chemical industry in Germany. Applied Energy, 2018, 228, 2037-2049.	5.1	20

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55	Numerical model for thermoeconomic diagnosis in commercial transcritical/subcritical booster refrigeration systems. Energy Conversion and Management, 2012, 60, 161-169.	4.4	18
56	Modeling of parallel-plate regenerators with non-uniform plate distributions. International Journal of Heat and Mass Transfer, 2010, 53, 5065-5072.	2.5	16
57	Exergoeconomic optimization of an ammoniaâ€“water hybrid absorptionâ€“compression heat pump for heat supply in a spray-drying facility. International Journal of Energy and Environmental Engineering, 2015, 6, 195-211.	1.3	16
58	Steady state behavior of a booster heat pump for hot water supply in ultra-low temperature district heating network. Energy, 2021, 237, 121528.	4.5	16
59	Assessment of thermodynamic models for the design, analysis and optimisation of gas liquefaction systems. Applied Energy, 2016, 183, 43-60.	5.1	15
60	Performance of a reversible heat pump/organic Rankine cycle unit coupled with a passive house to get a positive energy building. Journal of Building Performance Simulation, 2018, 11, 19-35.	1.0	15
61	Comparison of COP estimation methods for large-scale heat pumps used in energy planning. Energy, 2020, 205, 117994.	4.5	15
62	Comparison of fin-and-tube interlaced and face split evaporators with flow maldistribution and compensation. International Journal of Refrigeration, 2013, 36, 203-214.	1.8	13
63	Climate effect of an integrated wheat production and bioenergy system with Low Temperature Circulating Fluidized Bed gasifier. Applied Energy, 2015, 160, 511-520.	5.1	13
64	Reverse Engineering of Working Fluid Selection for Industrial Heat Pump Based on Monte Carlo Sampling and Uncertainty Analysis. Industrial & Engineering Chemistry Research, 2018, 57, 13463-13477.	1.8	12
65	Maldistribution in airâ€“water heat pump evaporators. Part 1: Effects on evaporator, heat pump and system level. International Journal of Refrigeration, 2015, 50, 207-216.	1.8	11
66	Process and Economic Optimisation of a Milk Processing Plant with Solar Thermal Energy. Computer Aided Chemical Engineering, 2016, , 1347-1352.	0.3	9
67	Identification and Evaluation of Cases for Excess Heat Utilisation Using GIS. Energies, 2018, 11, 762.	1.6	9
68	Performance of heat pumps using pure and mixed refrigerants with maldistribution effects in plate heat exchanger evaporators. International Journal of Refrigeration, 2019, 104, 390-403.	1.8	9
69	Drinking water supply as low-temperature source in the district heating system: A case study for the city of Copenhagen. Energy, 2020, 194, 116773.	4.5	9
70	Thermodynamic simulation analysis of a multifuel CHP plant basing on the technological diagram of AvedÃ¸re unit 2. Archives of Thermodynamics, 2010, 31, 79-93.	1.0	8
71	Analysis of single blow effectiveness in non-uniform parallel plate regenerators. International Journal of Heat and Mass Transfer, 2011, 54, 4746-4751.	2.5	7
72	Two Thermoeconomic Diagnosis Methods Applied to Representative Operating Data of a Commercial Transcritical Refrigeration Plant. Entropy, 2017, 19, 69.	1.1	6

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73	Deriving guidelines for the design of plate evaporators in heat pumps using zeotropic mixtures. Energy, 2018, 156, 492-508.	4.5	6
74	Analysis of Indirectly Fired Gas Turbine for Wet Biomass Fuels Based on Commercial Micro Gas Turbine Data. , 2002, , .		6
75	Optimal Design and Dispatch of Electrically Driven Heat Pumps and Chillers for a New Development Area. Environmental and Climate Technologies, 2020, 24, 470-482.	0.5	6
76	Thermodynamic Performance Indicators for Offshore Oil and Gas Processing: Application to Four North Sea Facilities. Oil and Gas Facilities, 2014, 3, 051-063.	0.4	5
77	Maldistribution in airâ€“water heat pump evaporators. Part 2: Economic analysis of counteracting technologies. International Journal of Refrigeration, 2015, 50, 217-226.	1.8	5
78	Continuous versus pulsating flow boiling. Experimental comparison, visualization, and statistical analysis. Science and Technology for the Built Environment, 2017, 23, 983-996.	0.8	4
79	Identification of optimal measurement points for energy monitoring of industrial processes: The case of milk powder production. Journal of Cleaner Production, 2021, 284, 124634.	4.6	3
80	Formulation and validation of a two-dimensional steady-state model of desiccant wheels. Science and Technology for the Built Environment, 2015, 21, 300-311.	0.8	2
81	Regenerative Gas Turbines With Divided Expansion. , 2004, , .		2
82	Synthesis of preliminary system designs for offshore oil and gas production. Computer Aided Chemical Engineering, 2016, , 1419-1424.	0.3	1
83	Analysis of energy integration opportunities in the retrofit of a milk powder production plant using the Bridge framework. Journal of Cleaner Production, 2021, 328, 129402.	4.6	1
84	Further development of the RDRA method for the optimal acquisition of data in process integration retrofit projects. Journal of Cleaner Production, 2021, 329, 129443.	4.6	0