

Hoseyn Sayyaadi

List of Publications by Year in descending order

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131
papers

4,799
citations

66315

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132
docs citations

132
times ranked

2541
citing authors

#	ARTICLE	IF	CITATIONS
1	Price inflation effects on a solar-geothermal system for combined production of hydrogen, power, freshwater and heat. <i>International Journal of Hydrogen Energy</i> , 2024, 52, 861-872.	3.8	18
2	Machine learning prediction approach for dynamic performance modeling of an enhanced solar still desalination system. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 3919-3930.	2.0	40
3	An artificial intelligence-based prediction way to describe flowing a Newtonian liquid/gas on a permeable flat surface. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 4403-4409.	2.0	17
4	Thermodynamic modeling of several alcohol-hydrocarbon binary mixtures at low to moderate conditions. <i>Journal of Molecular Liquids</i> , 2022, 346, 117924.	2.3	12
5	The real-time dynamic multi-objective optimization of a building integrated photovoltaic thermal (BIPV/T) system enhanced by phase change materials. <i>Journal of Energy Storage</i> , 2022, 46, 103777.	3.9	51
6	Geographical Preference for Installation of Solar Still Water Desalination Technologies in Iran: An Analytical Hierarchy Process (AHP)-Based Answer. <i>Water (Switzerland)</i> , 2022, 14, 265.	1.2	11
7	Simulation and thermodynamic modeling of heat extraction from abandoned wells. , 2022, , 135-155.		1
8	Integration of heat extraction from abandoned wells with renewables. , 2022, , 275-295.		1
9	Intelligent systems in air pollution research: a review. , 2022, , 59-82.		0
10	Energy Performance of a Novel Hybrid Air Conditioning System Built on Gravity-Assisted Heat Pipe-Based Indirect Evaporative Cooler. <i>Energies</i> , 2022, 15, 2613.	1.6	2
11	Thermo-electro-environmental analysis of a photovoltaic solar panel using machine learning and real-time data for smart and sustainable energy generation. <i>Journal of Cleaner Production</i> , 2022, 353, 131611.	4.6	26
12	A conceptual optimum design for a high-efficiency solar-assisted desalination system based on economic, exergy, energy, and environmental (4E) criteria. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 52, 102053.	1.7	8
13	Dynamic multi-objective optimization applied to a solar-geothermal multi-generation system for hydrogen production, desalination, and energy storage. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 31730-31741.	3.8	40
14	A novel electrochemical refrigeration system based on the combined proton exchange membrane fuel cell-electrolyzer. <i>Applied Energy</i> , 2022, 316, 119058.	5.1	5
15	The 3E Optimal Location Assessment of Flat-Plate Solar Collectors for Domestic Applications in Iran. <i>Energies</i> , 2022, 15, 3589.	1.6	9
16	A super-efficient method for hydrogen production from seawater. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 26135-26155.	3.8	1
17	Why Kalina (Ammonia-Water) cycle rather than steam Rankine cycle and pure ammonia cycle: A comparative and comprehensive case study for a cogeneration system. <i>Energy Conversion and Management</i> , 2022, 265, 115739.	4.4	31
18	Using machine learning in photovoltaics to create smarter and cleaner energy generation systems: A comprehensive review. <i>Journal of Cleaner Production</i> , 2022, 364, 132701.	4.6	41

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19	Technoeconomical, environmental, and reliability assessment of different flare gas recovery technologies. <i>Journal of Cleaner Production</i> , 2022, 367, 133009.	4.6	7
20	Comprehensive performance evaluation and demandsâ€™ sensitivity analysis of different optimum sizing strategies for a combined cooling, heating, and power system. <i>Journal of Cleaner Production</i> , 2021, 279, 123225.	4.6	32
21	A higher performance optimum design for a tri-generation system by taking the advantage of water-energy nexus. <i>Journal of Cleaner Production</i> , 2021, 284, 124704.	4.6	11
22	Experimental analysis of innovative designs for solar still desalination technologies; An in-depth technical and economic assessment. <i>Journal of Energy Storage</i> , 2021, 33, 101862.	3.9	55
23	Using computational fluid dynamics for different alternatives water flow path in a thermal photovoltaic (PVT) system. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2021, 31, 1618-1637.	1.6	20
24	Soft computing and statistical tools for developing analytical models. , 2021, , 247-325.		1
25	Decision-making in optimization and assessment of energy systems. , 2021, , 431-477.		1
26	Comprehensive analysis of the effect of air injection on the wake development of an airfoil. <i>Ocean Engineering</i> , 2021, 220, 108455.	1.9	7
27	Advanced thermal models. , 2021, , 101-184.		0
28	Optimization basics. , 2021, , 327-430.		2
29	The Road to Developing Economically Feasible Plans for Green, Comfortable and Energy Efficient Buildings. <i>Energies</i> , 2021, 14, 636.	1.6	8
30	Applying homotopy perturbation method to provide an analytical solution for Newtonian fluid flow on a porous flat plate. <i>Mathematical Methods in the Applied Sciences</i> , 2021, 44, 7017-7030.	1.2	17
31	Energy and environmental enhancement of power generation units by means of <sc>zeroâ€flow</sc> coolant strategy. <i>International Journal of Energy Research</i> , 2021, 45, 10064-10085.	2.2	5
32	A review of thermally regenerative electrochemical systems for power generation and refrigeration applications. <i>Applied Thermal Engineering</i> , 2021, 187, 116576.	3.0	39
33	Energy and Exergy Analyses on Seasonal Comparative Evaluation of Water Flow Cooling for Improving the Performance of Monocrystalline PV Module in Hot-Arid Climate. <i>Sustainability</i> , 2021, 13, 6084.	1.6	10
34	A dynamic multi-objective optimization procedure for water cooling of a photovoltaic module. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 45, 101111.	1.7	20
35	Acquiring an analytical solution and performing a comparative sensitivity analysis for flowing Maxwell upper-convected fluid on a horizontal surface. <i>Thermal Science and Engineering Progress</i> , 2021, 23, 100901.	1.3	16
36	Thermal energy recovery of molten carbonate fuel cells by thermally regenerative electrochemical cycles. <i>Energy</i> , 2021, 227, 120489.	4.5	24

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37	Comparative study of temperature distribution impact on prediction accuracy of simulation approaches for poly and mono crystalline solar modules. Energy Conversion and Management, 2021, 239, 114221.	4.4	15
38	Regional management of flare gas recovery based on water-energy-environment nexus considering the reliability of the downstream installations. Energy Conversion and Management, 2021, 239, 114189.	4.4	12
39	Selecting the best nanofluid type for A photovoltaic thermal (PV/T) system based on reliability, efficiency, energy, economic, and environmental criteria. Journal of the Taiwan Institute of Chemical Engineers, 2021, 124, 351-358.	2.7	78
40	Acquiring the Foremost Window Allocation Strategy to Achieve the Best Trade-Off among Energy, Environmental, and Comfort Criteria in a Building. Energies, 2021, 14, 3962.	1.6	10
41	Water-energy nexus performance investigation of water flow cooling as a clean way to enhance the productivity of solar photovoltaic modules. Journal of Cleaner Production, 2021, 312, 127641.	4.6	24
42	Towards achieving the best solution to utilize photovoltaic solar panels for residential buildings in urban areas. Sustainable Cities and Society, 2021, 71, 102968.	5.1	26
43	A smart load-speed sensitive cooling map to have a high- performance thermal management system in an internal combustion engine. Energy, 2021, 229, 120667.	4.5	27
44	Techno-energy-enviro-economic multi-objective optimization to determine the best operating conditions for preparing toluene in an industrial setup. Journal of Cleaner Production, 2021, 313, 127887.	4.6	14
45	A method for improving the accuracy of numerical simulations of a photovoltaic panel. Sustainable Energy Technologies and Assessments, 2021, 47, 101433.	1.7	8
46	A high-resolution daily experimental performance evaluation of a large-scale industrial vapor-compression refrigeration system based on real-time IoT data monitoring technology. Sustainable Energy Technologies and Assessments, 2021, 47, 101427.	1.7	7
47	Real-time optimization of energy systems using the soft-computing approaches. , 2021, , 479-527.		0
48	Combined thermal, economic, and environmental models. , 2021, , 185-246.		1
49	4E Advancement of Heat Recovery during Hot Seasons for a Building Integrated Photovoltaic Thermal (BIPV/T) System. , 2021, 12, .		1
50	Life cycle comparison of potential scenarios to achieve the foremost performance for an off-grid photovoltaic electrification system. Journal of Cleaner Production, 2020, 242, 118440.	4.6	36
51	End-usersâ€™ and policymakersâ€™ impacts on optimal characteristics of a dew-point cooler. Applied Thermal Engineering, 2020, 165, 114575.	3.0	22
52	Determination of Hildebrand solubility parameter of pure 1-alkanols up to high pressures. Journal of Molecular Liquids, 2020, 297, 111847.	2.3	18
53	Application based multi-objective performance optimization of a proton exchange membrane fuel cell. Journal of Cleaner Production, 2020, 252, 119567.	4.6	58
54	Employing genetic programming to find the best correlation to predict temperature of solar photovoltaic panels. Energy Conversion and Management, 2020, 224, 113291.	4.4	55

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55	Impact of absolute and relative humidity on the performance of mono and poly crystalline silicon photovoltaics; applying artificial neural network. <i>Journal of Cleaner Production</i> , 2020, 276, 123016.	4.6	48
56	A detailed experimental airfoil performance investigation using an equipped wind tunnel. <i>Flow Measurement and Instrumentation</i> , 2020, 72, 101717.	1.0	10
57	Providing an accurate method for obtaining the efficiency of a photovoltaic solar module. <i>Renewable Energy</i> , 2020, 156, 395-406.	4.3	53
58	Optimal design of a two-stage refrigeration cycle for natural gas pre-cooling in a gas refinery considering the best allocation of refrigerant. <i>Energy Conversion and Management</i> , 2020, 210, 112743.	4.4	15
59	Solutions for thermal energy exploitation from the exhaust of an industrial gas turbine using optimized bottoming cycles. <i>Energy Conversion and Management</i> , 2020, 207, 112523.	4.4	22
60	Multi-objective optimization for the best possible thermal, electrical and overall energy performance of a novel perforated-type regenerative evaporative humidifier. <i>Energy Conversion and Management</i> , 2019, 198, 111802.	4.4	39
61	Employing static and dynamic optimization approaches on a desiccant-enhanced indirect evaporative cooling system. <i>Energy Conversion and Management</i> , 2019, 199, 112017.	4.4	45
62	Comprehensive comparative evaluation of different possible optimization scenarios for a polymer electrolyte membrane fuel cell. <i>Energy Conversion and Management</i> , 2019, 191, 247-260.	4.4	68
63	Retrofit of a steam power plant using the adaptive neuro-fuzzy inference system in response to the load variation. <i>Energy</i> , 2019, 175, 1164-1173.	4.5	10
64	Optimization strategy by a general approach to enhance improving potential of dew-point evaporative coolers. <i>Energy Conversion and Management</i> , 2019, 188, 177-213.	4.4	48
65	Numerical modeling and comparative study of different membrane-based liquid desiccant dehumidifiers. <i>Energy Conversion and Management</i> , 2019, 184, 735-747.	4.4	31
66	A methodology to obtain the foremost type and optimal size of the prime mover of a CCHP system for a large-scale residential application. <i>Applied Thermal Engineering</i> , 2018, 135, 389-405.	3.0	60
67	Comparative study of the conventional types of heat and mass exchangers to achieve the best design of dew point evaporative coolers at diverse climatic conditions. <i>Energy Conversion and Management</i> , 2018, 158, 327-345.	4.4	94
68	Application of the analytic hierarchy process to sustainability of water supply and sanitation services: the case of Algeria. <i>Water Science and Technology: Water Supply</i> , 2018, 18, 1282-1293.	1.0	23
69	Developing a novel methodology based on the adaptive neuro-fuzzy interference system for the exergoeconomic optimization of energy systems. <i>Energy</i> , 2018, 164, 218-235.	4.5	12
70	Conceptual design, optimization, and assessment of a hybrid Otto-Stirling engine/cooler for recovering the thermal energy of the exhaust gasses for automotive applications. <i>Energy Conversion and Management</i> , 2018, 171, 1063-1082.	4.4	9
71	Thermal comfort based resources consumption and economic analysis of a two-stage direct-indirect evaporative cooler with diverse water to electricity tariff conditions. <i>Energy Conversion and Management</i> , 2018, 172, 248-264.	4.4	43
72	Conceptual design and optimization of a small-scale dual power-desalination system based on the Stirling prime-mover. <i>Applied Energy</i> , 2018, 223, 457-471.	5.1	25

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73	A novel second-order thermal model of Stirling engines with consideration of losses due to the speed of the crack system. <i>Energy Conversion and Management</i> , 2018, 168, 505-521.	4.4	14
74	Conceptual design, process integration, and optimization of a solar Cu Cl thermochemical hydrogen production plant. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 2771-2789.	3.8	31
75	Design and retrofit optimization of the cellulose evaporative cooling pad systems at diverse climatic conditions. <i>Applied Thermal Engineering</i> , 2017, 123, 1396-1418.	3.0	56
76	Modeling and optimization of dew-point evaporative coolers based on a developed GMDH-type neural network. <i>Energy Conversion and Management</i> , 2017, 143, 49-65.	4.4	50
77	A systematic approach to find the best road map for enhancement of a power plant with dew point inlet air pre-cooling of the air compressor. <i>Energy Conversion and Management</i> , 2017, 150, 463-484.	4.4	64
78	A comprehensive approach to find the performance map of a heat pump using experiment and soft computing methods. <i>Energy Conversion and Management</i> , 2017, 153, 224-242.	4.4	27
79	A numerical model for a dew-point counter-flow indirect evaporative cooler using a modified boundary condition and considering effects of entrance regions. <i>International Journal of Refrigeration</i> , 2017, 84, 36-51.	1.8	25
80	A conceptual design of a dual hydrogen-power generation plant based on the integration of the gas-turbine cycle and copper chlorine thermochemical plant. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 28690-28709.	3.8	10
81	Heat and mass recirculations strategies for improving the thermal efficiency and environmental emission of a gas-turbine cycle. <i>Applied Thermal Engineering</i> , 2017, 125, 118-133.	3.0	26
82	A comprehensive performance investigation of cellulose evaporative cooling pad systems using predictive approaches. <i>Applied Thermal Engineering</i> , 2017, 110, 1589-1608.	3.0	69
83	Modeling and multi-objective optimization of an M-cycle cross-flow indirect evaporative cooler using the GMDH type neural network. <i>International Journal of Refrigeration</i> , 2016, 69, 186-204.	1.8	112
84	Improvement of energy systems using the soft computing techniques. <i>International Journal of Exergy</i> , 2016, 19, 315.	0.2	5
85	Real-time exergoeconomic optimization of a steam power plant using a soft computing-fuzzy inference system. <i>Energy</i> , 2016, 114, 868-884.	4.5	19
86	A novel approach using predictive models for performance analysis of desiccant enhanced evaporative cooling systems. <i>Applied Thermal Engineering</i> , 2016, 107, 227-252.	3.0	63
87	Analytical closed-form model for predicting the power and efficiency of Stirling engines based on a comprehensive numerical model and the genetic programming. <i>Energy</i> , 2016, 98, 324-339.	4.5	32
88	Efficiency enhancement and NO x emission reduction of a turbo-compressor gas engine by mass and heat recirculations of flue gases. <i>Applied Thermal Engineering</i> , 2016, 99, 661-671.	3.0	34
89	Modified PSVL: A second order model for thermal simulation of Stirling engines based on convective polytropic heat transfer of working spaces. <i>Applied Thermal Engineering</i> , 2015, 85, 340-355.	3.0	48
90	A new thermal model based on polytropic numerical simulation of Stirling engines. <i>Applied Energy</i> , 2015, 141, 143-159.	5.1	75

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91	Equilibrium conversion and reaction analysis in sulfur-iodine thermochemical hydrogen production cycle. Canadian Journal of Chemical Engineering, 2015, 93, 708-726.	0.9	3
92	Optimal sizing of Stirling-CCHP systems for residential buildings at diverse climatic conditions. Applied Thermal Engineering, 2015, 89, 377-393.	3.0	46
93	Acquiring the best cooling strategy based on thermal comfort and 3E analyses for small scale residential buildings at diverse climatic conditions. International Journal of Refrigeration, 2015, 57, 112-137.	1.8	56
94	Enhanced cavitation-oxidation process of non-VOC aqueous solution using hydrodynamic cavitation reactor. Chemical Engineering Journal, 2015, 272, 79-91.	6.6	16
95	A new closed-form thermodynamic model for thermal simulation of spark ignition internal combustion engines. Energy Conversion and Management, 2015, 105, 607-616.	4.4	15
96	A new closed-form analytical thermal model for simulating Stirling engines based on polytropic-finite speed thermodynamics. Energy Conversion and Management, 2015, 90, 395-408.	4.4	48
97	CAFS: The Combined Adiabatic-Finite Speed thermal model for simulation and optimization of Stirling engines. Energy Conversion and Management, 2015, 91, 32-53.	4.4	73
98	Optimization of Output Power and Thermal Efficiency of Solar-Dish Stirling Engine Using Finite Time Thermodynamic Analysis. Heat Transfer - Asian Research, 2015, 44, 347-376.	2.8	40
99	Optimal Design of a Solar-Driven Heat Engine Based on Thermal and Ecological Criteria. Journal of Energy Engineering - ASCE, 2015, 141, .	1.0	35
100	THERMO-HYDRAULIC BEHAVIOR MODELING OF PASSIVE HEAT TRANSFER ENHANCEMENT TECHNIQUES USING A SOFT COMPUTING APPROACH. Chemical Engineering Communications, 2014, 201, 53-71.	1.5	6
101	Multi-Objective Optimization of a Cross-Flow Plate Heat Exchanger Using Entropy Generation Minimization. Chemical Engineering and Technology, 2014, 37, 87-94.	0.9	22
102	Simple-II: A new numerical thermal model for predicting thermal performance of Stirling engines. Energy, 2014, 69, 873-890.	4.5	74
103	Designing a solar powered Stirling heat engine based on multiple criteria: Maximized thermal efficiency and power. Energy Conversion and Management, 2013, 75, 282-291.	4.4	216
104	Sizing a solar dish Stirling micro-CHP system for residential application in diverse climatic conditions based on 3E analysis. Energy Conversion and Management, 2013, 75, 348-365.	4.4	68
105	Energy and exergetic evaluations of Bunsen section of the sulfur-iodine thermochemical hydrogen production plant. International Journal of Hydrogen Energy, 2013, 38, 9074-9084.	3.8	17
106	Application of the multi-objective optimization method for designing a powered Stirling heat engine: Design with maximized power, thermal efficiency and minimized pressure loss. Renewable Energy, 2013, 60, 313-322.	4.3	184
107	Application of the multi-objective optimization and risk analysis for the sizing of a residential small-scale CCHP system. Energy and Buildings, 2013, 60, 330-344.	3.1	77
108	Thermo-economic multi-objective optimization of solar dish-Stirling engine by implementing evolutionary algorithm. Energy Conversion and Management, 2013, 73, 370-380.	4.4	180

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109	Determination of optimal operating conditions for a polymer electrolyte membrane fuel cell stack: optimal operating condition based on multiple criteria. International Journal of Energy Research, 2013, 37, 1872-1888.	2.2	7
110	Efficiency enhancement of a gas turbine cycle using an optimized tubular recuperative heat exchanger. Energy, 2012, 38, 362-375.	4.5	188
111	Implementing of the multi-objective particle swarm optimizer and fuzzy decision-maker in exergetic, exergoeconomic and environmental optimization of a benchmark cogeneration system. Energy, 2011, 36, 4777-4789.	4.5	63
112	Multi-objective optimization of a cooling tower assisted vapor compression refrigeration system. International Journal of Refrigeration, 2011, 34, 243-256.	1.8	109
113	Multi-objective optimization of a joule cycle for re-liquefaction of the Liquefied Natural Gas. Applied Energy, 2011, 88, 3012-3021.	5.1	49
114	A comprehensive approach in optimization of a dual nuclear power and desalination system. Desalination, 2011, 269, 25-34.	4.0	17
115	Multi-objective optimization of a recuperative gas turbine cycle using non-dominated sorting genetic algorithm. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, 2011, 225, 1041-1051.	0.8	10
116	Various criteria in optimization of a geothermal air conditioning system with a horizontal ground heat exchanger. International Journal of Energy Research, 2010, 34, 233-248.	2.2	14
117	Thermoeconomic optimization of a cryogenic refrigeration cycle for re-liquefaction of the LNG boil-off gas. International Journal of Refrigeration, 2010, 33, 1197-1207.	1.8	48
118	Thermoeconomic optimization of multi effect distillation desalination systems. Applied Energy, 2010, 87, 1122-1133.	5.1	151
119	Various approaches in optimization of multi effects distillation desalination systems using a hybrid meta-heuristic optimization tool. Desalination, 2010, 254, 138-148.	4.0	62
120	Design and optimization of a non-TEMA type tubular recuperative heat exchanger used in a regenerative gas turbine cycle. Energy, 2010, 35, 1647-1657.	4.5	32
121	Thermoeconomic optimization of a hybrid pressurized water reactor (PWR) power plant coupled to a multi effect distillation desalination system with thermo-vapor compressor (MED-TVC). Energy, 2010, 35, 1981-1996.	4.5	91
122	Comprehensive exergetic and economic comparison of PWR and hybrid fossil fuel-PWR power plants. Energy, 2010, 35, 2953-2964.	4.5	10
123	Instability of the cavitating flow in a venturi reactor. Fluid Dynamics Research, 2010, 42, 055503.	0.6	38
124	Exergy, Cost and Environment as Objectives in Particle Swarm Optimization of a Benchmark Cogeneration System. , 2010, , .		1
125	Various Criteria in Optimization of a Vapor Compression Refrigeration System. , 2010, , .		0
126	Multi-Objective Particle Swarm Optimization and Fuzzy Decision Making in a Benchmark Cogeneration System. , 2009, , .		4

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127	Assessment of Tandem Venturi on Enhancement of Cavitation Chemical Reaction. Journal of Fluids Engineering, Transactions of the ASME, 2009, 131, .	0.8	12
128	Multi-objective optimization of a vertical ground source heat pump using evolutionary algorithm. Energy Conversion and Management, 2009, 50, 2035-2046.	4.4	94
129	Exergoeconomic optimization of a 1000â€‰MW light water reactor power generation system. International Journal of Energy Research, 2009, 33, 378-395.	2.2	51
130	Various approaches in optimization of a typical pressurized water reactor power plant. Applied Energy, 2009, 86, 1301-1310.	5.1	29
131	Multi-objective approach in thermoenviromonic optimization of a benchmark cogeneration system. Applied Energy, 2009, 86, 867-879.	5.1	126