

Mehdi Aliehyaei

List of Publications by Year in descending order

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91
papers

3,024
citations

117453

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182168

51
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91
all docs

91
docs citations

91
times ranked

1826
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent progress in thermal and optical enhancement of low temperature solar collector. Energy Systems, 2023, 14, 1-40.	1.8	7
2	A critical review of biogas production and usage with legislations framework across the globe. International Journal of Environmental Science and Technology, 2022, 19, 3377-3400.	1.8	109
3	Low-grade heat from solar ponds: trends, perspectives, and prospects. International Journal of Ambient Energy, 2022, 43, 5145-5174.	1.4	10
4	Energy and exergy analysis of a trapezoidal absorber plate-based solar air collector. Energy Science and Engineering, 2022, 10, 1067-1082.	1.9	6
5	Development of smart energy systems for communities: technologies, policies and applications. Energy, 2022, 248, 123540.	4.5	32
6	A conceptual review of sustainable electrical power generation from biogas. Energy Science and Engineering, 2022, 10, 630-655.	1.9	24
7	Performance assessment of biomass-geothermal configuration energy resources for cooling and power generation. Energy Science and Engineering, 2022, 10, 3650-3666.	1.9	5
8	Thermoeconomic and exergoenvironmental assessments of a combined micro-gas turbine and superheated Kalina cycles for cogeneration of heat and electrical power using biomass. International Journal of Environmental Science and Technology, 2022, 19, 11233-11248.	1.8	4
9	Energy, exergy, and economic analyses of integration of heliostat solar receiver to gas and air bottom cycles. Journal of Cleaner Production, 2021, 280, 124322.	4.6	37
10	Recent residential applications of low-temperature solar collector. Journal of Cleaner Production, 2021, 279, 123549.	4.6	66
11	Exergoeconomic and environmental analyses of a novel multi-generation system including five subsystems for efficient waste heat recovery of a regenerative gas turbine cycle with hybridization of solar power tower and biomass gasifier. Energy Conversion and Management, 2021, 228, 113702.	4.4	62
12	Energy, exergy, economic, exergoenvironmental, and environmental analyses of a multigeneration system to produce electricity, cooling, potable water, hydrogen and sodium-hypochlorite. Desalination, 2021, 501, 114902.	4.0	54
13	Thermo-Economic Analysis on Integrated CO ₂ , Organic Rankine Cycles, and NaClO Plant Using Liquefied Natural Gas. Energies, 2021, 14, 2849.	1.6	13
14	Energy, exergy, economic, exergoenvironmental and environmental (5E) analyses of the cogeneration plant to produce electrical power and urea. Energy Conversion and Management, 2021, 235, 113951.	4.4	32
15	Energy, exergy, economic and exergoenvironmental analyses of polygeneration system integrated gas cycle, absorption chiller, and Copper-Chlorine thermochemical cycle to produce power, cooling, and hydrogen. Energy, 2021, 222, 120008.	4.5	28
16	The Performance Analysis and Monitoring of Grid-connected Photovoltaic Power Plant. Current Chinese Computer Science, 2021, 1, 77-96.	0.5	6
17	Energy, Exergy, Exergoeconomic, and Exergoenvironmental Assessment of Flash-Binary Geothermal Combined Cooling, Heating and Power Cycle. Energies, 2021, 14, 4464.	1.6	15
18	Renewable energy desalination; a sustainable approach for water scarcity in arid lands. International Journal of Sustainable Engineering, 2021, 14, 1916-1942.	1.9	30

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19	Investigating Smart City Development Based on Green Buildings, Electrical Vehicles and Feasible Indicators. Sustainability, 2021, 13, 7808.	1.6	38
20	Energy, exergy, exergoenvironmental, and exergoeconomic (4E) analyses of a gas boosting station. Energy Science and Engineering, 2021, 9, 2044-2063.	1.9	3
21	Energy, exergy, exergoenvironmental, and economic assessments of the multigeneration system powered by geothermal energy. Journal of Cleaner Production, 2021, 313, 127823.	4.6	61
22	Energy and exergy analyses of wind turbines. , 2021, , 195-203.		5
23	Energy, Exergy, Exergoeconomic and Exergoenvironmental Impact Analyses and Optimization of Various Geothermal Power Cycle Configurations. Entropy, 2021, 23, 1483.	1.1	8
24	Reduction of energy consumption in residential buildings with green roofs in three different climates of Iran. Advances in Building Energy Research, 2020, 14, 66-93.	1.1	25
25	A review status on alternative arrangements of power generation energy resources and reserve in India. International Journal of Low-Carbon Technologies, 2020, 15, 224-240.	1.2	16
26	Thermodynamic Optimization of a Geothermal Power Plant with a Genetic Algorithm in Two Stages. Processes, 2020, 8, 1277.	1.3	49
27	Applications of geothermal organic Rankine Cycle for electricity production. Journal of Cleaner Production, 2020, 274, 122950.	4.6	118
28	Energy, exergy and exergoeconomic optimization of a cogeneration system integrated with parabolic trough collector-wind turbine with desalination. Journal of Cleaner Production, 2020, 273, 123122.	4.6	85
29	Energy, exergy, economic, exergoeconomic, and exergoenvironmental (5E) analyses of a triple cycle with carbon capture. Journal of CO2 Utilization, 2020, 41, 101258.	3.3	53
30	Investigation the Integration of Heliostat Solar Receiver to Gas and Combined Cycles by Energy, Exergy, and Economic Point of Views. Applied Sciences (Switzerland), 2020, 10, 5307.	1.3	20
31	Energy, Exergy, Economic, and Exergoenvironmental Analyses of a Novel Hybrid System to Produce Electricity, Cooling, and Syngas. Energies, 2020, 13, 6453.	1.6	34
32	Energy, exergy and economic analyses of new coal-fired cogeneration hybrid plant with wind energy resource. Journal of Cleaner Production, 2020, 269, 122331.	4.6	26
33	Comparison of gas turbine inlet air cooling systems for several climates in Iran using energy, exergy, economic, and environmental (4E) analyses. Energy Conversion and Management, 2020, 216, 112944.	4.4	42
34	<sc>Multi-Objective</sc> optimization of solid oxide fuel cell/gas turbine combined heat and power system: A comparison between particle swarm and genetic algorithms. International Journal of Energy Research, 2020, 44, 9001-9020.	2.2	18
35	Energy, exergy, economic and exergoenvironmental analyses of gas and air bottoming cycles for production of electricity and hydrogen with gas reformer. Journal of Cleaner Production, 2020, 259, 120915.	4.6	67
36	Investigation of an integrated system combining an Organic Rankine Cycle and absorption chiller driven by geothermal energy: Energy, exergy, and economic analyses and optimization. Journal of Cleaner Production, 2020, 258, 120780.	4.6	111

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37	OPTIMIZATION OF MICRO GAS TURBINE BY ECONOMIC, EXERGY AND ENVIRONMENT ANALYSIS USING GENETIC, BEE COLONY AND SEARCHING ALGORITHMS. <i>Journal of Thermal Engineering</i> , 2020, 6, 117-140.	0.8	8
38	OPTIMIZATION OF THE VARIABLE REFRIGERANT FLOW SYSTEMS BY USE OF GENETIC ALGORITHM AND ENERGY, EXERGY, AND ECONOMIC ANALYSIS FOR THREE COOLANT FLUIDS. <i>Journal of Thermal Engineering</i> , 2020, 6, 381-404.	0.8	1
39	OPTIMIZATION OF A NEW CONFIGURATION OF POWER TRI-GENERATION CYCLE BY THE USE OF A MULTI-PURPOSE GENETIC ALGORITHM. <i>Journal of Thermal Engineering</i> , 2020, 6, 65-91.	0.8	2
40	Optimization of turbojet engine cycle with dual-purpose PSO algorithm. <i>Mechanics and Industry</i> , 2019, 20, 604.	0.5	4
41	Energy, exergy, advanced exergy and economic analyses of hybrid polymer electrolyte membrane (PEM) fuel cell and photovoltaic cells to produce hydrogen and electricity. <i>Journal of Cleaner Production</i> , 2019, 234, 1082-1093.	4.6	91
42	Implementation of energy sustainability using hybrid power systems, a case study. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2019, , 1-14.	1.2	11
43	Energy, exergy, and economic analysis of a new triple-cycle power generation configuration and selection of the optimal working fluid. <i>Mechanics and Industry</i> , 2019, 20, 501.	0.5	10
44	Thermodynamic modeling of a novel solar powered quad generation system to meet electrical and thermal loads of residential building and syngas production. <i>Energy Conversion and Management</i> , 2019, 199, 111982.	4.4	25
45	Energy, exergy, economic and advanced and extended exergy analyses of a wind turbine. <i>Energy Conversion and Management</i> , 2019, 183, 369-381.	4.4	95
46	Optimization of parabolic through collector (PTC) with multi objective swarm optimization (MOPSO) and energy, exergy and economic analyses. <i>Journal of Cleaner Production</i> , 2019, 234, 285-296.	4.6	67
47	Energy, exergy and economic analyses for the selection of working fluid and metal oxide nanofluids in a parabolic trough collector. <i>Solar Energy</i> , 2019, 187, 175-184.	2.9	73
48	Optimization of a triple cycle based on a solid oxide fuel cell and gas and steam cycles with a multiobjective genetic algorithm and energy, exergy and economic analyses. <i>Energy Conversion and Management</i> , 2019, 180, 689-708.	4.4	63
49	Feasibility study of using organic Rankine and reciprocating engine systems for supplying demand loads of a residential building. <i>Advances in Building Energy Research</i> , 2019, 13, 32-48.	1.1	4
50	Optimizing a New Configuration of a Proton Exchange Membrane Fuel Cell Cycle With Burner and Reformer Through a Particle Swarm Optimization Algorithm for Residential Applications. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2019, 16, .	1.1	7
51	Experimental and numerical analyses of particulate matter concentrations in underground subway station. <i>International Journal of Environmental Science and Technology</i> , 2018, 15, 2569-2580.	1.8	19
52	Evaluation and optimization of organic Rankine cycle (ORC) with algorithms NSGA-II, MOPSO, and MOEA for eight coolant fluids. <i>International Journal of Energy and Environmental Engineering</i> , 2018, 9, 39-57.	1.3	46
53	External Quality Assessment of Glycated Hemoglobin in Iran: Comparison of Five Different Commercial Methods with Two Different Total Allowable Errors. <i>Journal of Medical Biochemistry</i> , 2018, 37, 397-405.	0.7	0
54	Economic, exergy, and the environmental analysis of the use of internal combustion engines in parallel-to-network mode for office buildings. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2018, 40, 1.	0.8	6

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55	Exergy, economic and environmental (3E) analysis of a gas turbine power plant and optimization by MOPSO algorithm. <i>Thermal Science</i> , 2018, 22, 2641-2651.	0.5	23
56	Energy, exergy, and economic analysis of a geothermal power plant. <i>Advances in Geo-Energy Research</i> , 2018, 2, 190-209.	3.1	22
57	Exergy, economic and environmental analysis and multi-objective optimization of a SOFC-GT power plant. <i>Energy</i> , 2017, 134, 515-531.	4.5	81
58	Exergy and exergoeconomic analysis and multi-objective optimisation of gas turbine power plant by evolutionary algorithms. Case study: Aliabad Katoul power plant. <i>International Journal of Exergy</i> , 2017, 22, 279.	0.2	36
59	Optimization of photovoltaic thermal (PV/T) hybrid collectors by genetic algorithm in Iran's residential areas. <i>Advances in Energy Research</i> , 2017, 5, 31-55.	0.4	13
60	Analysis of an Internal Combustion Engine Using Porous Foams for Thermal Energy Recovery. <i>Sustainability</i> , 2016, 8, 267.	1.6	7
61	Optimization of a Finned Shell and Tube Heat Exchanger Using a Multi-Objective Optimization Genetic Algorithm. <i>Sustainability</i> , 2015, 7, 11679-11695.	1.6	20
62	Exergy, Economic and Environmental Analysis for Simple and Combined Heat and Power IC Engines. <i>Sustainability</i> , 2015, 7, 4411-4424.	1.6	25
63	Exergy, Economic and Environmental Analyses of Gas Turbine Inlet Air Cooling with a Heat Pump Using a Novel System Configuration. <i>Sustainability</i> , 2015, 7, 14259-14286.	1.6	24
64	Selection of Optimum Working Fluid for Organic Rankine Cycles by Exergy and Exergy-Economic Analyses. <i>Sustainability</i> , 2015, 7, 15362-15383.	1.6	79
65	Meeting the Electrical Energy Needs of a Residential Building with a Wind-Photovoltaic Hybrid System. <i>Sustainability</i> , 2015, 7, 2554-2569.	1.6	37
66	Exergy analysis and optimisation of a wind turbine using genetic and searching algorithms. <i>International Journal of Exergy</i> , 2015, 16, 293.	0.2	30
67	Techno-economic optimization of a shell and tube heat exchanger by genetic and particle swarm algorithms. <i>Energy Conversion and Management</i> , 2015, 93, 84-91.	4.4	92
68	Optimization of micro combined heat and power gas turbine by genetic algorithm. <i>Thermal Science</i> , 2015, 19, 207-218.	0.5	27
69	Optimization of fog inlet air cooling system for combined cycle power plants using genetic algorithm. <i>Applied Thermal Engineering</i> , 2015, 76, 449-461.	3.0	63
70	Erratum!. <i>Thermal Science</i> , 2015, 19, 748-748.	0.5	0
71	Estimation of condensate mass flow rate during purging time in heat recovery steam generator of combined cycle power plant. <i>Thermal Science</i> , 2014, 18, 1389-1397.	0.5	6
72	Exercise-induced changes of MCT1 in cardiac and skeletal muscles of diabetic rats induced by high-fat diet and STZ. <i>Journal of Physiology and Biochemistry</i> , 2013, 69, 865-877.	1.3	34

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73	Exergetic analysis of an aircraft turbojet engine with an afterburner. Thermal Science, 2013, 17, 1181-1194.	0.5	45
74	Exergy, Economic, and Environmental Analysis of a PEM Fuel Cell Power System to Meet Electrical and Thermal Energy Needs of Residential Buildings. Journal of Fuel Cell Science and Technology, 2012, 9, .	0.8	19
75	Feasibility study of applying internal combustion engines in residential buildings by exergy, economic and environmental analysis. Energy and Buildings, 2012, 55, 405-413.	3.1	45
76	Effects of Regeneration Heat Exchanger on Entropy, Electricity Cost, and Environmental Pollution Produced by Micro Gas Turbine System. International Journal of Green Energy, 2012, 9, 51-70.	2.1	17
77	Exergy, economic and environment (3E) analysis of absorption chiller inlet air cooler used in gas turbine power plants. International Journal of Energy Research, 2012, 36, 486-498.	2.2	54
78	Exergy, economic & environmental (3E) analysis of inlet fogging for gas turbine power plant. Energy, 2011, 36, 6851-6851.	4.5	63
79	Energy, economic and environmental (3E) analysis of a micro gas turbine employed for on-site combined heat and power production. Energy and Buildings, 2010, 42, 259-264.	3.1	74
80	Potential use of cold thermal energy storage systems for better efficiency and cost effectiveness. Energy and Buildings, 2010, 42, 2296-2303.	3.1	30
81	Optimisation of micro gas turbine by exergy, economic and environmental (3E) analysis. International Journal of Exergy, 2010, 7, 1.	0.2	44
82	Exergy analysis of a wind turbine. International Journal of Exergy, 2009, 6, 457.	0.2	31
83	Exergy Analysis a 5kW Polymer Electrolyte Fuel Cell (PEFC) With Cogeneration. , 2008, , .		1
84	Selection of micro turbines to meet electrical and thermal energy needs of residential buildings in Iran. Energy and Buildings, 2007, 39, 1227-1234.	3.1	52
85	Internalizing the Social Cost of Noise Pollution in the Cost Analysis of Electricity Generated by Wind Turbines. Wind Engineering, 2006, 30, 521-529.	1.1	13
86	Exergetic Optimization of a PEM Fuel Cell for Domestic Hot Water Heater. Journal of Fuel Cell Science and Technology, 2005, 2, 284-289.	0.8	20
87	Optimization of a combined heat and power PEFC by exergy analysis. Journal of Power Sources, 2005, 143, 179-184.	4.0	36
88	MULTI-OBJECTIVE PARTICLE SWARM OPTIMIZATION OF THE K-TYPE SHELL AND TUBE HEAT EXCHANGER (CASE) Tj FTQq0 0 Q rgBT /Ove	0.8	1
89	Energy, exergy, and exergoenvironmental assessment of the coupled electrochemical copper-chlorine with the Goswami cycles. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-19.	1.2	2
90	OPTIMIZATION OF GAS TURBINE POWER PLANT BY EVOLUTIONARY ALGORITHM; CONSIDERING EXERGY, ECONOMIC AND ENVIRONMENTAL ASPECTS. Journal of Thermal Engineering, 0, , 180-200.	0.8	5

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91	Energy, exergy, economic, and exergoenvironmental (4E) analyses of new configuration ammonia–water solution cycle driven by biomass to produce power and cooling. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-19.	1.2	2