

Esmail M A Mokheimer

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5159888/publications.pdf>

Version: 2024-02-01

116
papers

2,721
citations

218381

26
h-index

205818

48
g-index

117
all docs

117
docs citations

117
times ranked

2308
citing authors

#	ARTICLE	IF	CITATIONS
1	Kinetic and thermodynamic modelling of thermal decomposition of bitumen under high pressure enhanced with simulated annealing and artificial intelligence. Canadian Journal of Chemical Engineering, 2022, 100, 1126-1140.	0.9	3
2	Thermodynamic Assessment of Using Water as a Refrigerant in Cascade Refrigeration Systems With Other Environmentally Friendly Refrigerants. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	10
3	Performance Analysis of a Novel Cascade Vapor Compression System for Small-Scale Desalination and Cooling. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	2
4	Performance Assessment of Solar Parabolic Trough Collector-Assisted Combined Organic Rankine Cycle and Triple Pressure Level Ejector-Absorption Refrigeration Cycle. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	4
5	Conjugate Natural Convection: A Study of Optimum Fluid Flow and Heat Transfer in Eccentric Annular Channels. Journal of Engineering (United States), 2022, 2022, 1-17.	0.5	1
6	Swirl flow in annular geometry with varying cross-section. Engineering Applications of Computational Fluid Mechanics, 2022, 16, 1154-1172.	1.5	2
7	A novel technique for heavy oil recovery using poly vinyl alcohol (PVA) and PVA-NaOH with ethanol additive. Fuel, 2021, 285, 119128.	3.4	12
8	Energy and Exergy Performance Comparative Analysis of a Solar-Driven Organic Rankine Cycle Using Different Organic Fluids. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	1.4	11
9	Palladium-Alloy Membrane Reactors for Fuel Reforming and Hydrogen Production: A Review. Energy & Fuels, 2021, 35, 5558-5593.	2.5	49
10	A review on combustion instabilities in energy generating devices utilizing oxyfuel combustion. International Journal of Energy Research, 2021, 45, 17461-17479.	2.2	3
11	Productivity Enhancement in Multilayered Unconventional Rocks Using Thermochemicals. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	1.4	14
12	New Treatment for Improving the Productivity of Shale Reservoirs Using Thermochemical Fluids. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	1.4	3
13	A preliminary assessment of thermochemical fluid for heavy oil recovery. Journal of Petroleum Science and Engineering, 2020, 186, 106702.	2.1	15
14	Thermoacoustic combustion instability of propane-oxy combustion with CO ₂ dilution: Experimental analysis. International Journal of Energy Research, 2020, 44, 1031-1045.	2.2	9
15	Studies of interaction between bitumen and thermochemical fluid (TCF): Insights from experiment and molecular dynamics simulations. Applied Surface Science, 2020, 527, 146942.	3.1	8
16	Thermo-economic comparative analysis of solar-assisted and carbon capture integrated conventional cogeneration plant of power and process steam. International Journal of Energy Research, 2020, 44, 8455-8479.	2.2	9
17	Experimental and numerical analysis of using thermochemical injection for preheating to improve in-situ combustion of bitumen. Fuel, 2020, 275, 117894.	3.4	13
18	Recent Developments in Solar and Low-Temperature Heat Sources Assisted Power and Cooling Systems: A Design Perspective. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	1.4	23

#	ARTICLE	IF	CITATIONS
19	Numerical Investigation of Oxygen Permeation Through a Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O _{3-δ} Ion Transport Membrane With Impingement Flow. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	1.4	2
20	Analysis and Assessment of Tower Solar Collector Driven Trigeneration System. Journal of Solar Energy Engineering, Transactions of the ASME, 2020, 142, .	1.1	16
21	Numerical Study of Enhanced Oil Recovery Using In Situ Oxy-Combustion in a Porous Combustion Tube. Journal of Energy Resources Technology, Transactions of the ASME, 2020, 142, .	1.4	3
22	Potential of CSP power plants in KSA and their ability to provide cheap, dispatchable and secure energy in comparison with PV. AIP Conference Proceedings, 2020, , .	0.3	0
23	A Comprehensive Review of Thermal Enhanced Oil Recovery: Techniques Evaluation. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	97
24	Solar-Assisted Liquid Desiccant Dehumidification Using Hollow-Fiber and Parallel-Plate Membrane Dehumidifiers: Comparative Analysis. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	8
25	In situ steam and nitrogen gas generation by thermochemical fluid Injection: A new approach for heavy oil recovery. Energy Conversion and Management, 2019, 202, 112203.	4.4	19
26	Thermodynamic investigations on a novel solar powered trigeneration energy system. Energy Conversion and Management, 2019, 188, 398-413.	4.4	46
27	Performance Optimization of Mechanical Vapor Compression Desalination System Using a Water-Injected Twin-Screw Compressor. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	9
28	Thermo-economic optimization of hydrogen production in a membrane-SMR integrated to ITM-oxy-combustion plant using genetic algorithm. Applied Energy, 2019, 235, 164-176.	5.1	21
29	Performance Analysis of a Solar-Powered Multi-Effect Refrigeration System. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	19
30	Performance analysis of a membrane-based reformer-combustor reactor for hydrogen generation. International Journal of Energy Research, 2019, 43, 189-203.	2.2	15
31	Comparison of Energy Consumption for Residential Thermal Models With Actual Measurements. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	5
32	Well-Placement Optimization in Heavy Oil Reservoirs Using a Novel Method of In Situ Steam Generation. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	17
33	Performance Analysis of Integrated Solar Tower With a Conventional Heat and Power Co-Generation Plant. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	14
34	Heavy Oil Recovery Using In Situ Steam Generated by Thermochemicals: A Numerical Simulation Study. Journal of Energy Resources Technology, Transactions of the ASME, 2019, 141, .	1.4	9
35	Energy and exergy analyses of a solar powered multi-effect cooling cycle. International Journal of Exergy, 2018, 27, 500.	0.2	2
36	Experimental and numerical analysis of non-premixed oxy-combustion of hydrogen-enriched propane in a swirl stabilized combustor. Energy, 2018, 165, 1401-1414.	4.5	28

#	ARTICLE	IF	CITATIONS
37	Investigation on a solar thermal power and ejector-absorption refrigeration system based on first and second law analyses. <i>Energy</i> , 2018, 164, 1030-1043.	4.5	24
38	Numerical modeling of oxy-methane combustion in a model gas turbine combustor. <i>Applied Energy</i> , 2018, 228, 68-81.	5.1	37
39	Experimental Analysis of the Stability and Combustion Characteristics of Propane–Oxyfuel and Propane–Air Flames in a Non-premixed, Swirl-Stabilized Combustor. <i>Energy & Fuels</i> , 2018, 32, 8837-8844.	2.5	8
40	Numerical Study of the Combustion Characteristics of Propane–Oxyfuel Flames with CO ₂ Dilution. <i>Energy & Fuels</i> , 2018, 32, 7188-7198.	2.5	8
41	Optimal integration of solar energy with fossil fuel gas turbine cogeneration plants using three different CSP technologies in Saudi Arabia. <i>Applied Energy</i> , 2017, 185, 1268-1280.	5.1	65
42	Oxy-Combustion of Hydrogen-Enriched Methane: Experimental Measurements and Analysis. <i>Energy & Fuels</i> , 2017, 31, 2007-2016.	2.5	23
43	Analytical and Numerical Modeling of Solar Chimney. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2017, 139, .	1.4	4
44	Optimal Design of a Solar Collector for Required Flux Distribution on a Tubular Receiver. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2017, 139, .	1.4	3
45	Oxy-fuel combustion technology: current status, applications, and trends. <i>International Journal of Energy Research</i> , 2017, 41, 1670-1708.	2.2	93
46	Numerical Modeling and Simulation of Oxy-Combustion Exhaust Gas Recycling for Fuel Reforming. <i>Energy & Fuels</i> , 2017, 31, 5385-5394.	2.5	4
47	Parametric study on beta-type Stirling engine. <i>Energy Conversion and Management</i> , 2017, 145, 53-63.	4.4	32
48	CFD analysis of radiation impact on Stirling engine performance. <i>Energy Conversion and Management</i> , 2017, 152, 354-365.	4.4	23
49	Thermo-economic analysis of integrated membrane-SMR ITM-oxy-combustion hydrogen and power production plant. <i>Applied Energy</i> , 2017, 204, 626-640.	5.1	11
50	Production Cost–Efficiency Relation for Room Air Conditioners and Its Economic and Environmental Impact. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2017, 139, .	1.4	2
51	A novel design of solar chimney for cooling load reduction and other applications in buildings. <i>Energy and Buildings</i> , 2017, 153, 219-230.	3.1	28
52	Optimal integration of linear Fresnel reflector with gas turbine cogeneration power plant. <i>Energy Conversion and Management</i> , 2017, 148, 830-843.	4.4	28
53	A numerical investigation of hydrogen production in an integrated membrane reformer-combustor. <i>Energy Procedia</i> , 2017, 142, 1077-1082.	1.8	2
54	Boosting Gas Turbine Combined Cycles in Hot Regions Using Inlet Air Cooling including Solar Energy. <i>Energy Procedia</i> , 2017, 142, 1509-1515.	1.8	12

#	ARTICLE	IF	CITATIONS
55	Numerical Modeling of Oxy-Fuel Combustion in a Model Gas Turbine Combustor: Effect of Combustion Chemistry and Radiation Model. <i>Energy Procedia</i> , 2017, 142, 1647-1652.	1.8	7
56	Stability of Propane-air and oxyfuel diffusion flames in a swirl-stabilized combustor; an experimental study. <i>Energy Procedia</i> , 2017, 142, 1552-1557.	1.8	8
57	Numerical study of hydrogen-enriched methane-air combustion under ultra-lean conditions. <i>International Journal of Energy Research</i> , 2016, 40, 743-762.	2.2	21
58	Flame macrostructures, combustion instability and extinction strain scaling in swirl-stabilized premixed CH ₄ /H ₂ combustion. <i>Combustion and Flame</i> , 2016, 163, 494-507.	2.8	155
59	Numerical investigation of syngas oxy-combustion inside a LSCF-6428 oxygen transport membrane reactor. <i>Energy</i> , 2016, 96, 654-665.	4.5	32
60	Evaluation of the Accuracy of Selected Syngas Chemical Mechanisms. <i>Journal of Energy Resources Technology</i> , Transactions of the ASME, 2015, 137, .	1.4	14
61	Comparative Analysis of Different Configuration Domestic Refrigerators: A Computational Fluid Dynamics Approach. <i>Journal of Energy Resources Technology</i> , Transactions of the ASME, 2015, 137, .	1.4	6
62	Development and assessment of integrating parabolic trough collectors with steam generation side of gas turbine cogeneration systems in Saudi Arabia. <i>Applied Energy</i> , 2015, 141, 131-142.	5.1	31
63	A New Study for Hybrid PV/Wind off-Grid Power Generation Systems with the Comparison of Results from Homer. <i>International Journal of Green Energy</i> , 2015, 12, 526-542.	2.1	37
64	Computational fluid dynamics study of hydrogen generation by low temperature methane reforming in a membrane reactor. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 3158-3169.	3.8	47
65	Dry redox reforming hybrid power cycle: Performance analysis and comparison to steam redox reforming. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 2939-2949.	3.8	17
66	Solar thermal catalytic reforming of natural gas: a review on chemistry, catalysis and system design. <i>Catalysis Science and Technology</i> , 2015, 5, 1991-2016.	2.1	78
67	Experimental Study on the Effect of Hydrogen Enrichment of Methane on the Stability and Emission of Nonpremixed Swirl Stabilized Combustor. <i>Journal of Energy Resources Technology</i> , Transactions of the ASME, 2015, 137, .	1.4	18
68	Fuel flexibility, stability and emissions in premixed hydrogen-rich gas turbine combustion: Technology, fundamentals, and numerical simulations. <i>Applied Energy</i> , 2015, 154, 1020-1047.	5.1	215
69	On the Modeling of Steam Methane Reforming. <i>Journal of Energy Resources Technology</i> , Transactions of the ASME, 2015, 137, .	1.4	35
70	A review of solar methane reforming systems. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 12929-12955.	3.8	110
71	Performance Comparative Analysis of Three Different CSP Technologies Integrated with Gas Turbine Cogeneration Systems in Saudi Arabia. <i>Energy Procedia</i> , 2015, 75, 527-532.	1.8	4
72	A Novel Approach for Optimizing Two-Phase Flow in Water Rockets: Part I. <i>Arabian Journal for Science and Engineering</i> , 2014, 39, 3169-3180.	1.1	1

#	ARTICLE	IF	CITATIONS
73	Numerical investigations of combustion and emissions of syngas as compared to methane in a 200MW package boiler. <i>Energy Conversion and Management</i> , 2014, 83, 296-305.	4.4	22
74	Techno-economic performance analysis of parabolic trough collector in Dhahran, Saudi Arabia. <i>Energy Conversion and Management</i> , 2014, 86, 622-633.	4.4	89
75	The Economic and Environmental Impact of Applying Minimum Energy Performance Standards to the Residential Refrigerators in Saudi Arabia. <i>Energy and Environment</i> , 2014, 25, 41-61.	2.7	0
76	FLOW REVERSAL IN MIXED CONVECTION IN VERTICAL CONCENTRIC ANNULI: WHY IT OCCURS IN BUOYANCY-AIDED FLOWS. <i>Computational Thermal Sciences</i> , 2014, 6, 219-240.	0.5	0
77	Investigation of buoyancy effects on heat transfer between a vertical borehole heat exchanger and the ground. <i>Geothermics</i> , 2013, 48, 52-59.	1.5	16
78	Modeling and optimization of hybrid wind-solar-powered reverse osmosis water desalination system in Saudi Arabia. <i>Energy Conversion and Management</i> , 2013, 75, 86-97.	4.4	130
79	On the Need for Energy Labeling for Villa Air Conditioners in Saudi Arabia and its Economic and Environmental Impact. <i>Energy and Environment</i> , 2012, 23, 51-73.	2.7	5
80	Buoyancy Effects on Entropy Generation in the Entrance Region of Isothermal/Adiabatic Vertical Channel. <i>Arabian Journal for Science and Engineering</i> , 2012, 37, 1681-1700.	1.1	5
81	A Review of Hybrid Solar-Fossil Fuel Power Generation Systems and Performance Metrics. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2012, 134, .	1.1	89
82	FLOW REVERSAL IN MIXED CONVECTION IN VERTICAL CONCENTRIC ANNULI. , 2012, , .		1
83	Determinants of Consumers' Demand on Energy-Efficient Air Conditioners in Saudi Arabia. <i>Energy and Environment</i> , 2011, 22, 711-722.	2.7	7
84	Performance of a modified direct expansion A/C unit. <i>International Journal of Energy Research</i> , 2010, 34, 1132-1135.	2.2	0
85	Feasibility of using ground-coupled condensers in A/C systems. <i>Geothermics</i> , 2010, 39, 201-204.	1.5	28
86	NATURAL CONVECTION FROM A VERTICAL GROUND HEAT EXCHANGER EMBEDDED IN A SEMI-INFINITE POROUS MEDIUM. <i>Computational Thermal Sciences</i> , 2010, 2, 231-248.	0.5	1
87	Parametric analysis of entropy generation due to laminar developing mixed convection between differentially heated isothermal vertical parallel plates. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2010, 20, 941-971.	1.6	7
88	Heat transfer enhancement and pressure drop reduction due to mixed convection between two vertical parallel plates. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2010, 20, 867-896.	1.6	1
89	Energy, exergy and uncertainty analyses of the thermal response test for a ground heat exchanger. <i>International Journal of Energy Research</i> , 2009, 33, 582-592.	2.2	62
90	Effective pipe-to-borehole thermal resistance for vertical ground heat exchangers. <i>Geothermics</i> , 2009, 38, 271-277.	1.5	107

#	ARTICLE	IF	CITATIONS
91	First in situ determination of the ground thermal conductivity for borehole heat exchanger applications in Saudi Arabia. <i>Renewable Energy</i> , 2009, 34, 2218-2223.	4.3	67
92	Entropy generation due to mixed convection between vertical parallel plates under isothermal boundary conditions. <i>International Journal of Exergy</i> , 2009, 6, 671.	0.2	8
93	Geometry effects on conjugate natural convection heat transfer in vertical eccentric annuli. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2007, 17, 461-493.	1.6	8
94	Correlations for maximum possible induced flow rates and heat transfer parameters in open-ended vertical eccentric annuli. <i>International Communications in Heat and Mass Transfer</i> , 2007, 34, 357-368.	2.9	11
95	Numerical prediction of the thermal conductivity of fibers. <i>Heat and Mass Transfer</i> , 2006, 42, 449-461.	1.2	10
96	Prediction of the thermal conductivity of the constituents of fiber reinforced composite laminates. <i>Heat and Mass Transfer</i> , 2006, 42, 370-377.	1.2	15
97	Conditions for pressure build-up due to buoyancy effects on forced convection in vertical eccentric annuli under thermal boundary condition of first kind. <i>Heat and Mass Transfer</i> , 2006, 43, 175-189.	1.2	4
98	Prediction of the Thermal Conductivity of the Constituents of Fiber-Reinforced Composite Laminates: Voids Effect. <i>Journal of Composite Materials</i> , 2006, 40, 797-814.	1.2	22
99	Maximum possible induced flow rates in open-ended vertical eccentric annuli with uniform heat flux. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2005, 15, 161-182.	1.6	11
100	Conjugate Effects on Steady Laminar Natural Convection Heat Transfer in Vertical Eccentric Annuli. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2005, 6, 235-250.	1.4	7
101	Developing mixed convection in vertical eccentric annuli. <i>Heat and Mass Transfer</i> , 2004, 41, 176.	1.2	4
102	Critical Values of Gr/Re for Mixed Convection in Vertical Eccentric Annuli With Isothermal/Adiabatic Walls. <i>Journal of Heat Transfer</i> , 2004, 126, 479-482.	1.2	9
103	Heat transfer from extended surfaces subject to variable heat transfer coefficient. <i>Heat and Mass Transfer</i> , 2003, 39, 131-138.	1.2	28
104	Freezing time calculations for various products. <i>International Journal of Energy Research</i> , 2003, 27, 1117-1130.	2.2	2
105	Spreadsheet Modelling of Transient Three Dimensional Heat Conduction with Various Standard Boundary Conditions. <i>International Journal of Mechanical Engineering Education</i> , 2002, 30, 17-34.	0.6	8
106	A spreadsheet solution of transient conduction in composite fins. <i>International Journal of Energy Research</i> , 2002, 26, 383-397.	2.2	3
107	Simplified solution of developing laminar forced flow between parallel plates. <i>International Journal of Energy Research</i> , 2002, 26, 399-411.	2.2	2
108	Performance of annular fins with different profiles subject to variable heat transfer coefficient. <i>International Journal of Heat and Mass Transfer</i> , 2002, 45, 3631-3642.	2.5	97

#	ARTICLE	IF	CITATIONS
109	Limiting Values for Free-Convection Induced Flow Rates in Vertical Eccentric Annuli with an Isothermal Boundary. Numerical Heat Transfer; Part A: Applications, 2001, 39, 611-630.	1.2	10
110	On the Use of Spreadsheets in Heat Conduction Analysis. International Journal of Mechanical Engineering Education, 2000, 28, 113-139.	0.6	9
111	Spreadsheet numerical simulation for developing laminar free convection between vertical parallel plates. Computer Methods in Applied Mechanics and Engineering, 1999, 178, 393-412.	3.4	10
112	Free convection in vertical eccentric annuli with a uniformly heated boundary. International Journal of Numerical Methods for Heat and Fluid Flow, 1998, 8, 488-503.	1.6	23
113	Developing Laminar Flow in Eccentric Annuli. Journal of Fluids Engineering, Transactions of the ASME, 1997, 119, 724-728.	0.8	4
114	Transient conduction in eccentrically hollow cylinders. International Journal of Heat and Mass Transfer, 1995, 38, 2001-2010.	2.5	6
115	Performance Analysis of Integrated Solar Combined Cycle Power Plant for Dhahran, Saudi Arabia. Applied Mechanics and Materials, 0, 492, 568-573.	0.2	2
116	Analysis of methane, propane, and syngas oxy-fuel flames in a fuel-flex gas turbine combustor for carbon capture. International Journal of Energy Research, 0, , .	2.2	4