

Mahmoud A Ahmed

List of Publications by Year in descending order

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89
papers

3,340
citations

136885

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docs citations

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times ranked

2835
citing authors

#	ARTICLE	IF	CITATIONS
1	The value of integrating Scan-to-BIM and Scan-vs-BIM techniques for construction monitoring using laser scanning and BIM: The case of cylindrical MEP components. <i>Automation in Construction</i> , 2015, 49, 201-213.	4.8	352
2	A review on methanol crossover in direct methanol fuel cells: challenges and achievements. <i>International Journal of Energy Research</i> , 2011, 35, 1213-1228.	2.2	217
3	Performance enhancement of concentrated photovoltaic systems using a microchannel heat sink with nanofluids. <i>Energy Conversion and Management</i> , 2016, 119, 289-303.	4.4	171
4	A review on photoelectrochemical hydrogen production systems: Challenges and future directions. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 2474-2507.	3.8	169
5	Cooling concentrator photovoltaic systems using various configurations of phase-change material heat sinks. <i>Energy Conversion and Management</i> , 2018, 158, 298-314.	4.4	129
6	Performance study and analysis of an inclined concentrated photovoltaic-phase change material system. <i>Solar Energy</i> , 2017, 150, 229-245.	2.9	114
7	The influence of microchannel heat sink configurations on the performance of low concentrator photovoltaic systems. <i>Applied Energy</i> , 2017, 206, 594-611.	5.1	107
8	Enhancing the performance of concentrator photovoltaic systems using Nanoparticle-phase change material heat sinks. <i>Energy Conversion and Management</i> , 2019, 179, 229-242.	4.4	98
9	Experimental investigation of humidification-dehumidification desalination system with corrugated packing in the humidifier. <i>Desalination</i> , 2017, 410, 19-29.	4.0	80
10	Thermal management of concentrator photovoltaic systems using two-phase flow boiling in double-layer microchannel heat sinks. <i>Applied Energy</i> , 2019, 241, 404-419.	5.1	77
11	Thermal management of concentrator photovoltaic systems using new configurations of phase change material heat sinks. <i>Solar Energy</i> , 2019, 183, 632-652.	2.9	75
12	Analysis and simulation of concentrating photovoltaic systems with a microchannel heat sink. <i>Solar Energy</i> , 2016, 136, 35-48.	2.9	73
13	Uniform cooling for concentrator photovoltaic cells and electronic chips by forced convective boiling in 3D-printed monolithic double-layer microchannel heat sink. <i>Energy Conversion and Management</i> , 2018, 166, 356-371.	4.4	69
14	Performance enhancement of twisted-bladed Savonius vertical axis wind turbines. <i>Energy Conversion and Management</i> , 2020, 209, 112673.	4.4	67
15	Thermal management of electronic devices and concentrator photovoltaic systems using phase change material heat sinks: Experimental investigations. <i>Renewable Energy</i> , 2019, 141, 322-339.	4.3	63
16	Thermal management of concentrator photovoltaic systems using microchannel heat sink with nanofluids. <i>Solar Energy</i> , 2018, 171, 229-246.	2.9	58
17	Performance evaluation of new modified low-concentrator polycrystalline silicon photovoltaic/thermal systems. <i>Energy Conversion and Management</i> , 2017, 149, 593-607.	4.4	57
18	Enhancing the performance of a solar driven hybrid solar still/humidification-dehumidification desalination system integrated with solar concentrator and photovoltaic panels. <i>Desalination</i> , 2018, 430, 165-179.	4.0	57

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19	Influence of spinning cup and disk atomizer configurations on droplet size and velocity characteristics. <i>Chemical Engineering Science</i> , 2014, 107, 149-157.	1.9	54
20	Performance evaluation of a new design of concentrator photovoltaic and solar thermoelectric generator hybrid system. <i>Energy Conversion and Management</i> , 2019, 195, 1382-1401.	4.4	54
21	Performance evaluation of concentrator photovoltaic systems integrated with a new jet impingement-microchannel heat sink and heat spreader. <i>Solar Energy</i> , 2020, 199, 852-863.	2.9	53
22	Laminar forced convection of a nanofluid in a microchannel: Effect of flow inertia and external forces on heat transfer and fluid flow characteristics. <i>Applied Thermal Engineering</i> , 2015, 78, 326-338.	3.0	52
23	New High Voltage Gain Dual-boost DC-DC Converter for Photovoltaic Power Systems. <i>Electric Power Components and Systems</i> , 2012, 40, 711-728.	1.0	50
24	Performance study of solid oxide fuel cell with various flow field designs: numerical study. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 20931-20946.	3.8	47
25	Efficient fuel utilization by enhancing the under-rib mass transport using new serpentine flow field designs of direct methanol fuel cells. <i>Energy Conversion and Management</i> , 2017, 144, 88-103.	4.4	43
26	Performance analysis of a new concentrator photovoltaic system integrated with phase change material and water jacket. <i>Solar Energy</i> , 2018, 173, 1158-1172.	2.9	43
27	Modeling of Solution Droplet Evaporation and Particle Evolution in Droplet-to-Particle Spray Methods. <i>Drying Technology</i> , 2009, 27, 3-13.	1.7	42
28	Effect of injection pressure and ambient density on spray characteristics of diesel and biodiesel surrogate fuels. <i>Fuel</i> , 2019, 254, 115674.	3.4	38
29	The effect of microwave drying pretreatment on dry torrefaction of agricultural biomasses. <i>Bioresource Technology</i> , 2019, 286, 121400.	4.8	38
30	Performance evaluation of a novel vertical axis wind turbine using twisted blades in multi-stage Savonius rotors. <i>Energy Conversion and Management</i> , 2021, 235, 114013.	4.4	38
31	Effect of compression ratio on performance, combustion and emissions characteristics of compression ignition engine fueled with jojoba methyl ester. <i>Renewable Energy</i> , 2019, 141, 632-645.	4.3	35
32	Characteristics of Mean Droplet Size Produced by Spinning Disk Atomizers. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2012, 134, .	0.8	32
33	Performance assessment study of photo-electro-chemical water-splitting reactor designs for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 9237-9247.	3.8	32
34	Energy/exergy analysis of solar driven mechanical vapor compression desalination system with nano-filtration pretreatment. <i>Desalination</i> , 2021, 509, 115078.	4.0	30
35	Numerical Simulation of Natural Convection of a Nanofluid in an Inclined Heated Enclosure Using Two-Phase Lattice Boltzmann Method: Accurate Effects of Thermophoresis and Brownian Forces. <i>Nanoscale Research Letters</i> , 2015, 10, 1006.	3.1	29
36	Investigations of solid oxide fuel cells with functionally graded electrodes for high performance and safe thermal stress. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 15887-15902.	3.8	28

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37	Influence of partial solar energy storage and solar concentration ratio on the productivity of integrated solar still/humidification-dehumidification desalination systems. <i>Desalination</i> , 2019, 467, 29-42.	4.0	27
38	Enhancing under-rib mass transport in proton exchange membrane fuel cells using new serpentine flow field designs. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30644-30662.	3.8	27
39	Natural convection in a differentially-heated square enclosure filled with a nanofluid: Significance of the thermophoresis force and slip/drift velocity. <i>International Communications in Heat and Mass Transfer</i> , 2014, 58, 1-11.	2.9	26
40	Simulation of transport phenomena in a photo-electrochemical reactor for solar hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2016, 41, 8020-8031.	3.8	26
41	Characteristics of liquid sheets formed by splash plate nozzles. <i>Experiments in Fluids</i> , 2007, 44, 125-136.	1.1	24
42	Characteristics of heat transfer and fluid flow in a channel with single-row plates array oblique to flow direction for photovoltaic/thermal system. <i>Energy</i> , 2010, 35, 3524-3534.	4.5	24
43	Break-Up Length and Spreading Angle of Liquid Sheets Formed by Splash Plate Nozzles. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2009, 131, .	0.8	23
44	Effects of photo-generated gas bubbles on the performance of tandem photoelectrochemical reactors for hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 10286-10300.	3.8	22
45	Predicting the onset of consequent stenotic regions in carotid arteries using computational fluid dynamics. <i>Physics of Fluids</i> , 2021, 33, .	1.6	21
46	Using multi-path spiral flow fields to enhance under-rib mass transport in direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 30663-30681.	3.8	19
47	Performance evaluation of concentrator photovoltaic systems integrated with combined passive cooling techniques. <i>Solar Energy</i> , 2021, 228, 447-463.	2.9	19
48	Performance assessment of a novel integrated concentrator photovoltaic system with encapsulated phase change materials. <i>Energy Conversion and Management</i> , 2022, 266, 115854.	4.4	19
49	Using digital photogrammetry for pipe-works progress tracking1This paper is one of a selection of papers in this Special Issue on Construction Engineering and Management.. <i>Canadian Journal of Civil Engineering</i> , 2012, 39, 1062-1071.	0.7	18
50	Assessment of wind turbine transient overvoltages when struck by lightning: experimental and analytical study. <i>IET Renewable Power Generation</i> , 2019, 13, 1360-1368.	1.7	18
51	Influence of varying the Ethylene-Vinyl Acetate layer thicknesses on the performance of a polycrystalline silicon solar cell integrated with a microchannel heat sink. <i>Solar Energy</i> , 2020, 195, 592-609.	2.9	17
52	Numerical simulation of condensate removal from gas channels of PEM fuel cells using corrugated walls. <i>International Journal of Energy Research</i> , 2018, 42, 1664-1676.	2.2	15
53	Thermal management of concentrator photovoltaic systems using nano-enhanced phase change materials-based heat sink. <i>International Journal of Energy Research</i> , 2020, 44, 7713-7733.	2.2	14
54	Enhancing the performance of direct methanol fuel cells via a new anode design for carbon dioxide bubbles removal. <i>Energy Conversion and Management</i> , 2022, 251, 114958.	4.4	14

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55	Performance and thermal stresses in functionally graded anode-supported honeycomb solid-oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 33010-33027.	3.8	13
56	Experimental study of the performance of concentrator photovoltaic/thermoelectric generator system integrated with a new 3D printed microchannel heat sink. <i>International Journal of Energy Research</i> , 2021, 45, 7741-7763.	2.2	13
57	A One-Dimensional Model of Viscous Liquid Jets Breakup. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2011, 133, .	0.8	12
58	Comparative Study of Active and Passive Cooling Techniques for Concentrated Photovoltaic Systems. , 2018, , 475-505.		12
59	Modeling of the Onset of Gas Entrainment Through a Finite-Side Branch. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2003, 125, 902-909.	0.8	11
60	Influence of Breakup Regimes on the Droplet Size Produced by Splash-Plate Nozzles. <i>AIAA Journal</i> , 2009, 47, 516-522.	1.5	10
61	Performance enhancement of the concentrated photovoltaic using different phase change material configurations. <i>Energy Procedia</i> , 2017, 141, 61-65.	1.8	10
62	A Theoretical Model for the Formation of Functional Micro- and Nano-Particles from Combustion of Emulsion Droplets. <i>Drying Technology</i> , 2011, 29, 1025-1036.	1.7	8
63	Two-dimensional modeling of viscous liquid jet breakup. <i>Acta Mechanica</i> , 2013, 224, 499-512.	1.1	8
64	Analysis of the effect of guidewire position on stenosis diagnosis using computational fluid dynamics. <i>Computers in Biology and Medicine</i> , 2020, 121, 103777.	3.9	8
65	Assessing and Comparing the Characteristics of CI Engine Powered by Biodiesel“Diesel and Biodiesel“Kerosene Blends. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 11771-11782.	1.7	8
66	Effect of guidewire insertion in fractional flow reserve procedure for real geometry using computational fluid dynamics. <i>BioMedical Engineering OnLine</i> , 2021, 20, 95.	1.3	8
67	Influence of design and operating conditions on the performance of tandem photoelectrochemical reactors. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 1285-1302.	3.8	7
68	The onset of gas pull-through during dual discharge from a stratified two-phase region: Theoretical analysis. <i>Physics of Fluids</i> , 2004, 16, 3385-3392.	1.6	6
69	Theoretical Analysis of the Onset of Gas Entrainment from a Stratified Two-Phase Region Through Two Side-Oriented Branches Mounted on a Vertical Wall. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , 2006, 128, 131-141.	0.8	6
70	Performance Enhancement of Concentrated Photovoltaic System Using Phase-Change Material. , 2016, , .		6
71	Enhancing the Impact of Biodiesel Blend on Combustion, Emissions, and Performance of DI Diesel Engine. <i>Arabian Journal for Science and Engineering</i> , 2020, 45, 1109-1123.	1.7	6
72	A new standalone single effect thermal vapor compression desalination plant with nano-filtration pretreatment. <i>Energy Conversion and Management</i> , 2022, 252, 115095.	4.4	6

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73	Performance assessment of a dual-axis solar tracker for concentrator photovoltaic systems. International Journal of Energy Research, 2022, 46, 13424-13440.	2.2	6
74	Carbon Dioxide Bubbles Removal by Capillary Actuation in the Anode Channel of Direct Methanol Fuel Cells. Journal of Energy Resources Technology, Transactions of the ASME, 2021, 143, .	1.4	5
75	Cooling of Concentrated Photovoltaic System Using Various Configurations of Phase-Change Material Heat Sink. , 2016, , .		4
76	Analysis of a New Hybrid Water-Phase Change Material Heat Sink for Low Concentrated Photovoltaic Systems. , 2017, , .		4
77	Influence of Varying the Stage Aspect Ratio on the Performance of Multi-Stage Savonius Wind Rotors. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	4
78	Performance enhancement of direct methanol fuel cell using multi-zone narrow flow fields. International Journal of Energy Research, 2019, 43, 8257.	2.2	3
79	Effect of anode channel shape and wettability on CO ₂ bubble evolution in direct methanol fuel cells. Physics of Fluids, 2022, 34, .	1.6	3
80	Theoretical Analysis of the Onset of Gas Entrainment from a Stratified Region through a Single Side-Oriented Branch at Moderate Froude Numbers. Canadian Journal of Chemical Engineering, 2004, 82, 1175-1182.	0.9	2
81	Performance of Concentrated Photovoltaic Cells Using Various Microchannel Heat Sink Designs. , 2016, , .		2
82	Performance of Two-Dimensional Functionally Graded Anode Supported Solid-Oxide Fuel Cells. Journal of Energy Resources Technology, Transactions of the ASME, 2022, 144, .	1.4	2
83	Influence of Wall Inclination Angles on the Onset of Gas Entrainment During Single and Dual Discharges From a Reservoir. Journal of Fluids Engineering, Transactions of the ASME, 2008, 130, .	0.8	1
84	The onset of liquid entrainment from a stratified two-phase region through small branches. Acta Mechanica, 2014, 225, 3023-3039.	1.1	1
85	DESIGN OF A NOVEL PHOTOELECTROCHEMICAL REACTOR FOR HYDROGEN PRODUCTION. , 2017, , .		1
86	An Investigation of a Novel Structure Polycrystalline Silicon Solar Cell for Concentrated Solar Power. , 2017, , .		0
87	Enhancement of concentrator photovoltaic cooling using phase change material by adding bulk over regular configuration. , 2018, , .		0
88	Cooling of Concentrator Photovoltaic Cells Using Mini-Scale Jet Impingement Heat Sinks. , 2018, , .		0
89	Comparative study of combustion, performance, and emissions of a diesel engine fuelled with biodiesel blend with metallic and organic nano-particles. International Journal of Global Warming, 2020, 22, 133.	0.2	0