

# Fahad

## List of Publications by Citations

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124  
papers

5,533  
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g-index

129  
ext. papers

6,960  
ext. citations

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avg, IF

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L-index

#	Paper	IF	Citations
124	A review on current status and challenges of inorganic phase change materials for thermal energy storage systems. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 70, 1072-1089	16.2	308
123	Heat transfer enhancement of phase change materials for thermal energy storage applications: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 74, 26-50	16.2	284
122	Exergy modeling of a new solar driven trigeneration system. <i>Solar Energy</i> , <b>2011</b> , 85, 2228-2243	6.8	168
121	Performance comparison of different supercritical carbon dioxide Brayton cycles integrated with a solar power tower. <i>Energy</i> , <b>2015</b> , 82, 61-71	7.9	164
120	Performance assessment of a novel system using parabolic trough solar collectors for combined cooling, heating, and power production. <i>Renewable Energy</i> , <b>2012</b> , 48, 161-172	8.1	164
119	Exergy analysis of parabolic trough solar collectors integrated with combined steam and organic Rankine cycles. <i>Energy Conversion and Management</i> , <b>2014</b> , 77, 441-449	10.6	156
118	Energy analysis of a trigeneration plant based on solid oxide fuel cell and organic Rankine cycle. <i>International Journal of Hydrogen Energy</i> , <b>2010</b> , 35, 5104-5113	6.7	153
117	Exergy analysis of an integrated solid oxide fuel cell and organic Rankine cycle for cooling, heating and power production. <i>Journal of Power Sources</i> , <b>2010</b> , 195, 2346-2354	8.9	152
116	Carbon nanotube nanofluid in enhancing the efficiency of evacuated tube solar collector. <i>Renewable Energy</i> , <b>2018</b> , 121, 36-44	8.1	142
115	Evaluation of solar collector designs with integrated latent heat thermal energy storage: A review. <i>Solar Energy</i> , <b>2018</b> , 166, 334-350	6.8	133
114	Trigeneration: A comprehensive review based on prime movers. <i>International Journal of Energy Research</i> , <b>2011</b> , 35, 233-258	4.5	128
113	Energy and exergy analyses of a biomass trigeneration system using an organic Rankine cycle. <i>Energy</i> , <b>2012</b> , 45, 975-985	7.9	124
112	Vibration analysis of drillstrings with self-excited stick-slip oscillations. <i>Journal of Sound and Vibration</i> , <b>2007</b> , 299, 540-558	3.9	122
111	Supercooling of phase-change materials and the techniques used to mitigate the phenomenon. <i>Applied Energy</i> , <b>2019</b> , 240, 793-817	10.7	118
110	A review for phase change materials (PCMs) in solar absorption refrigeration systems. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 76, 105-137	16.2	111
109	Diatomite/CNTs/PEG composite PCMs with shape-stabilized and improved thermal conductivity: Preparation and thermal energy storage properties. <i>Energy and Buildings</i> , <b>2018</b> , 164, 166-175	7	109
108	Experimental and numerical performance analysis of a converging channel heat exchanger for PV cooling. <i>Energy Conversion and Management</i> , <b>2015</b> , 103, 14-27	10.6	97

107	A hybrid renewable energy system as a potential energy source for water desalination using reverse osmosis: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 97, 456-477	16.2	93
106	Greenhouse gas emission and exergy assessments of an integrated organic Rankine cycle with a biomass combustor for combined cooling, heating and power production. <i>Applied Thermal Engineering</i> , <b>2011</b> , 31, 439-446	5.8	87
105	Superhydrophobic surfaces with antireflection properties for solar applications: A critical review. <i>Solar Energy Materials and Solar Cells</i> , <b>2016</b> , 157, 604-623	6.4	83
104	Silica fume/capric acid-palmitic acid composite phase change material doped with CNTs for thermal energy storage. <i>Solar Energy Materials and Solar Cells</i> , <b>2018</b> , 179, 353-361	6.4	82
103	Development of a thermal model for a hybrid photovoltaic module and phase change materials storage integrated in buildings. <i>Solar Energy</i> , <b>2016</b> , 124, 114-123	6.8	79
102	Grid Integration Challenges of Wind Energy: A Review. <i>IEEE Access</i> , <b>2020</b> , 8, 10857-10878	3.5	78
101	A review on recent development for the design and packaging of hybrid photovoltaic/thermal (PV/T) solar systems. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 95, 110-129	16.2	77
100	Humidification dehumidification desalination system using parabolic trough solar air collector. <i>Applied Thermal Engineering</i> , <b>2015</b> , 75, 809-816	5.8	76
99	Thermoeconomic optimization of three trigeneration systems using organic Rankine cycles: Part I □ Formulations. <i>Energy Conversion and Management</i> , <b>2013</b> , 69, 199-208	10.6	76
98	Energy and exergy analyses of solar tower power plant driven supercritical carbon dioxide recompression cycles for six different locations. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 68, 153-167	16.2	75
97	Techno-economic performance analysis of parabolic trough collector in Dhahran, Saudi Arabia. <i>Energy Conversion and Management</i> , <b>2014</b> , 86, 622-633	10.6	74
96	Optical properties of various nanofluids used in solar collector: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 73, 1014-1030	16.2	72
95	Review of recent developments and persistent challenges in stability of perovskite solar cells. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 90, 210-222	16.2	72
94	Performance and cost assessment of solar driven humidification dehumidification desalination system. <i>Energy Conversion and Management</i> , <b>2017</b> , 132, 28-39	10.6	69
93	Preparation, characterization and thermal regulation performance of cement based-composite phase change material. <i>Solar Energy Materials and Solar Cells</i> , <b>2018</b> , 174, 523-529	6.4	67
92	Performance comparison of three trigeneration systems using organic rankine cycles. <i>Energy</i> , <b>2011</b> , 36, 5741-5754	7.9	67
91	State-of-the-art heat transfer fluids for parabolic trough collector. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 152, 119541	4.9	66
90	Thermoeconomic optimization of three trigeneration systems using organic Rankine cycles: Part II □ Applications. <i>Energy Conversion and Management</i> , <b>2013</b> , 69, 209-216	10.6	57

89	Entropy, exergy, and cost analyses of solar driven cogeneration systems using supercritical CO <sub>2</sub> Brayton cycles and MEE-TVC desalination system. <i>Energy Conversion and Management</i> , <b>2016</b> , 115, 253-264	10.6	56
88	Feasibility study of the grid connected 10 MW installed capacity PV power plants in Saudi Arabia. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 80, 319-329	16.2	54
87	Energy and sizing analyses of parabolic trough solar collector integrated with steam and binary vapor cycles. <i>Energy</i> , <b>2013</b> , 58, 561-570	7.9	54
86	Effect of temperature on the photovoltaic performance and stability of solid-state dye-sensitized solar cells: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 79, 946-959	16.2	52
85	Optimization of heliostat field layout in solar central receiver systems on annual basis using differential evolution algorithm. <i>Energy Conversion and Management</i> , <b>2015</b> , 95, 1-9	10.6	50
84	Solar absorption systems with integrated absorption energy storage—A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2018</b> , 82, 1602-1610	16.2	49
83	Optical, stability and energy performance of water-based MXene nanofluids in hybrid PV/thermal solar systems. <i>Solar Energy</i> , <b>2020</b> , 204, 32-47	6.8	46
82	Improved Thermophysical Properties and Energy Efficiency of Aqueous Ionic Liquid/MXene Nanofluid in a Hybrid PV/T Solar System. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	46
81	Performance optimization of a hybrid PV/T solar system using Soybean oil/MXene nanofluids as A new class of heat transfer fluids. <i>Solar Energy</i> , <b>2020</b> , 208, 124-138	6.8	45
80	Characterization of dust collected from PV modules in the area of Dhahran, Kingdom of Saudi Arabia, and its impact on protective transparent covers for photovoltaic applications. <i>Solar Energy</i> , <b>2017</b> , 141, 203-209	6.8	42
79	CO <sub>2</sub> laser cutting of a carbon/carbon multi-lamelled plain-weave structure. <i>Journal of Materials Processing Technology</i> , <b>2006</b> , 173, 345-351	5.3	42
78	Recent progress and remaining challenges in organometallic halides based perovskite solar cells. <i>Renewable and Sustainable Energy Reviews</i> , <b>2017</b> , 78, 1-14	16.2	39
77	Energy analysis of a solar driven cogeneration system using supercritical CO <sub>2</sub> power cycle and MEE-TVC desalination system. <i>Energy</i> , <b>2017</b> , 119, 996-1009	7.9	39
76	Numerical investigation of the effects of the nano-enhanced phase change materials on the thermal and electrical performance of hybrid PV/thermal systems. <i>Energy Conversion and Management</i> , <b>2020</b> , 205, 112449	10.6	38
75	The potential of energy savings and the prospects of cleaner energy production by solar energy integration in the residential buildings of Saudi Arabia. <i>Journal of Cleaner Production</i> , <b>2018</b> , 183, 1122-1130	10.3	37
74	Exergy analysis of a high-temperature-steam-driven, varied-pressure, humidification-dehumidification system coupled with reverse osmosis. <i>Applied Energy</i> , <b>2013</b> , 103, 552-561	10.7	37
73	Performance characteristics of a solar driven lithium bromide-water absorption chiller integrated with absorption energy storage. <i>Energy Conversion and Management</i> , <b>2017</b> , 150, 188-200	10.6	35
72	Optimum selection of solar water heating (SWH) systems based on their comparative techno-economic feasibility study for the domestic sector of Saudi Arabia. <i>Renewable and Sustainable Energy Reviews</i> , <b>2016</b> , 62, 336-349	16.2	33

71	Performance assessment of a solar powered ammonia-water absorption refrigeration system with storage units. <i>Energy Conversion and Management</i> , <b>2016</b> , 126, 316-328	10.6	32
70	Experimental testing of the performance of a solar absorption cooling system assisted with ice-storage for an office space. <i>Energy Conversion and Management</i> , <b>2017</b> , 148, 1399-1408	10.6	31
69	Development and assessment of integrating parabolic trough collectors with steam generation side of gas turbine cogeneration systems in Saudi Arabia. <i>Applied Energy</i> , <b>2015</b> , 141, 131-142	10.7	30
68	Synthesis of zinc oxide/titanium dioxide (ZnO/TiO <sub>2</sub> ) nanocomposites by wet impregnation method and preparation of ZnO/TiO <sub>2</sub> paste using poly(vinylpyrrolidone) for efficient dye-sensitized solar cells. <i>Electrochimica Acta</i> , <b>2016</b> , 222, 473-480	6.7	29
67	Investigation of thermal properties and enhanced energy storage/release performance of silica fume/myristic acid composite doped with carbon nanotubes. <i>Renewable Energy</i> , <b>2019</b> , 140, 779-788	8.1	28
66	Development of a mathematical model for optimizing a heliostat field layout using differential evolution method. <i>International Journal of Energy Research</i> , <b>2015</b> , 39, 1241-1255	4.5	27
65	Comparative studies of encapsulation and glass surface modification impacts on PV performance in a desert climate. <i>Solar Energy</i> , <b>2017</b> , 142, 288-298	6.8	26
64	Optical behavior of a water/silver nanofluid and their influence on the performance of a photovoltaic-thermal collector. <i>Solar Energy Materials and Solar Cells</i> , <b>2019</b> , 201, 110054	6.4	25
63	Performance assessment of water production from solar cooling system in humid climate. <i>Energy Conversion and Management</i> , <b>2016</b> , 127, 647-655	10.6	23
62	Thermal regulation and performance assessment of a hybrid photovoltaic/thermal system using different combinations of nano-enhanced phase change materials. <i>Solar Energy Materials and Solar Cells</i> , <b>2020</b> , 215, 110645	6.4	20
61	Form-Stabilized Polyethylene Glycol/Palygorskite Composite Phase Change Material: Thermal Energy Storage Properties, Cycling Stability, and Thermal Durability. <i>Polymer Engineering and Science</i> , <b>2020</b> , 60, 909-916	2.3	18
60	Segmented thermoelectric generator: Influence of pin shape configuration on the device performance. <i>Energy</i> , <b>2016</b> , 111, 439-452	7.9	18
59	Performance enhancement of dye-sensitized solar cells via cosensitization of ruthenizer Z907 and organic sensitizer SQ2. <i>International Journal of Energy Research</i> , <b>2018</b> , 42, 3957-3965	4.5	17
58	Electrochemical Impedance Spectroscopy and Photovoltaic Analyses of Dye-Sensitized Solar Cells Based on Carbon/TiO <sub>2</sub> Composite Counter Electrode. <i>Journal of the Electrochemical Society</i> , <b>2016</b> , 163, H339-H342	3.9	16
57	On the auxiliary boiler sizing assessment for solar driven supercritical CO <sub>2</sub> double recompression Brayton cycles. <i>Applied Energy</i> , <b>2016</b> , 183, 408-418	10.7	16
56	State-of-the-art ionic liquid & ionanofluids incorporated with advanced nanomaterials for solar energy applications. <i>Journal of Molecular Liquids</i> , <b>2021</b> , 336, 116563	6	16
55	A novel design of a multistage stepped bubble column humidifier for the humidification of air. <i>Applied Thermal Engineering</i> , <b>2017</b> , 120, 530-536	5.8	15
54	Thermoeconomic analysis of shrouded wind turbines. <i>Energy Conversion and Management</i> , <b>2015</b> , 96, 599-604	10.4	15

53	Estimation of monthly average daily and hourly solar radiation impinging on a sloped surface using the isotropic sky model for Dhahran, Saudi Arabia. <i>Renewable Energy</i> , <b>1997</b> , 11, 257-262	8.1	15
52	Optical properties and stability of water-based nanofluids mixed with reduced graphene oxide decorated with silver and energy performance investigation in hybrid photovoltaic/thermal solar systems. <i>International Journal of Energy Research</i> , <b>2020</b> , 44, 11487-11508	4.5	15
51	Effects of carbon-based fillers on thermal properties of fatty acids and their eutectics as phase change materials used for thermal energy storage: A Review. <i>Journal of Energy Storage</i> , <b>2021</b> , 35, 102329	7.8	15
50	Performance analysis of a solar chimney power plant design aided with reflectors. <i>Energy Conversion and Management</i> , <b>2018</b> , 177, 30-42	10.6	15
49	Evaluation of the effects of optical filtration and nanoPCM on the performance of a hybrid photovoltaic-thermal solar collector. <i>Energy Conversion and Management</i> , <b>2019</b> , 195, 139-156	10.6	14
48	Thermal energy storage and thermal conductivity properties of fatty acid/fatty acid-grafted-CNTs and fatty acid/CNTs as novel composite phase change materials. <i>Scientific Reports</i> , <b>2020</b> , 10, 15388	4.9	14
47	A survey of energy consumption and failure patterns of residential air-conditioning units in Eastern Saudi Arabia. <i>Energy</i> , <b>1996</b> , 21, 967-975	7.9	13
46	Optical and conductivity studies of polyvinyl alcohol-MXene (PVA-MXene) nanocomposite thin films for electronic applications. <i>Optics and Laser Technology</i> , <b>2021</b> , 136, 106772	4.2	13
45	Thermal energy storage and thermal conductivity properties of Octadecanol-MWCNT composite PCMs as promising organic heat storage materials. <i>Scientific Reports</i> , <b>2020</b> , 10, 9168	4.9	12
44	Impact resistance of composite laminate flat plates I A parametric sensitivity analysis approach. <i>Composite Structures</i> , <b>2013</b> , 102, 138-147	5.3	12
43	State-of-the-art review on water-based nanofluids for low temperature solar thermal collector application. <i>Solar Energy Materials and Solar Cells</i> , <b>2021</b> , 230, 111220	6.4	12
42	Analysis of environmental dust and mud adhesion on aluminum surface in relation to solar energy harvesting. <i>Solar Energy</i> , <b>2017</b> , 153, 590-599	6.8	11
41	Energy and Exergy Analyses of Recompression Brayton Cycles Integrated with a Solar Power Tower through a Two-Tank Thermal Storage System. <i>Journal of Energy Engineering - ASCE</i> , <b>2018</b> , 144, 04018036	1.7	11
40	Energy, exergy, economic and environmental (4E) analysis of a parabolic trough solar collector using MXene based silicone oil nanofluids. <i>Solar Energy Materials and Solar Cells</i> , <b>2022</b> , 239, 111633	6.4	11
39	A detailed parametric study of a solar driven double-effect absorption chiller under various solar radiation data. <i>Journal of Cleaner Production</i> , <b>2020</b> , 251, 119750	10.3	10
38	An experimental investigation of a novel design air humidifier using direct solar thermal heating. <i>Energy Conversion and Management</i> , <b>2016</b> , 127, 667-678	10.6	10
37	Investigation of the performance of a hybrid PV/thermal system using water/silver nanofluid-based optical filter. <i>Energy</i> , <b>2021</b> , 215, 119172	7.9	10
36	Applications of wind power on the East coast of Saudi Arabia. <i>Renewable Energy</i> , <b>1992</b> , 2, 47-55	8.1	9

35	Investigation of Electrical Conductivity, Optical Property, and Stability of 2D MXene Nanofluid Containing Ionic Liquids. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 8943	2.6	9
34	Critical analysis of the limitations and validity of the assumptions with the analytical methods commonly used to determine the photovoltaic cell parameters. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 140, 110753	16.2	9
33	Grid Integration Challenges and Solution Strategies for Solar PV Systems: A Review. <i>IEEE Access</i> , <b>2022</b> , 1-1	3.5	9
32	Transparent Conductive Oxide Films for High-Performance Dye-Sensitized Solar Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2017</b> , 7, 518-524	3.7	8
31	Charging and discharging characteristics of absorption energy storage integrated with a solar driven double-effect absorption chiller for air conditioning applications. <i>Journal of Energy Storage</i> , <b>2020</b> , 29, 101374	7.8	7
30	Exploring the potential of MXene-based advanced solar-absorber in improving the performance and efficiency of a solar-desalination unit for brackish water purification. <i>Desalination</i> , <b>2022</b> , 526, 115521	10.3	6
29	Performance and exergoeconomic assessment of a novel combined ejector cooling with humidification-dehumidification (HDH) desalination system. <i>Desalination</i> , <b>2021</b> , 500, 114843	10.3	6
28	Efficiency enhancement of a solar dish collector operating with a novel soybean oil-based-MXene nanofluid and different cavity receivers. <i>Journal of Cleaner Production</i> , <b>2021</b> , 317, 128430	10.3	6
27	Thermal performance of nanomaterial in solar collector: State-of-play for graphene. <i>Journal of Energy Storage</i> , <b>2021</b> , 42, 103022	7.8	6
26	Thermodynamic performance evaluation of a hybrid ejector cooling and humidification-dehumidification desalination system. <i>Energy Conversion and Management</i> , <b>2020</b> , 225, 113450	10.6	5
25	Enhancement of the Photovoltaic Performance of Dye-Sensitized Solar Cells by Cosensitizing TiO <sub>2</sub> Photoanode With Uncapped PbS Nanocrystals and Ruthenizer. <i>IEEE Journal of Photovoltaics</i> , <b>2018</b> , 8, 512-516	3.7	5
24	Effect of Accumulation of Environmental Dust and Subsequent Mud Formation on Textural, Chemical, and Optical Properties of Silicon Wafers for Photovoltaic Cells. <i>IEEE Journal of Photovoltaics</i> , <b>2018</b> , 8, 1274-1280	3.7	5
23	Renewable Portfolio Standard Development Assessment in the Kingdom of Saudi Arabia from the Perspective of Policy Networks Theory. <i>Processes</i> , <b>2021</b> , 9, 1123	2.9	5
22	Exergoeconomic analysis of ejector-augmented shrouded wind turbines. <i>Energy</i> , <b>2017</b> , 128, 264-270	7.9	4
21	Energy and Exergy Analyses of an Air Membrane Heat and Mass Exchanger for Air Conditioning Applications. <i>Journal of Energy Engineering - ASCE</i> , <b>2017</b> , 143, 04017028	1.7	4
20	Assessment of next generation refrigerants for air conditioning systems integrated with air-membrane heat and mass exchangers. <i>Energy Conversion and Management</i> , <b>2017</b> , 154, 344-353	10.6	4
19	Extreme learning machine for real-time damping of LFO in power system networks. <i>Electrical Engineering</i> , <b>2021</b> , 103, 279-292	1.5	4
18	Performance analysis of supercritical CO <sub>2</sub> Brayton cycles integrated with solar central receiver system <b>2014</b> ,		3

17	Experimental investigation of a bubble column humidifier heated through solar energy60, 58-69		3
16	Techno-economic study on grid-connected PV system for major cities in Saudi Arabia. <i>E3S Web of Conferences</i> , <b>2020</b> , 173, 02005	0.5	3
15	Economic analysis of a novel solar-assisted air conditioning system with integral absorption energy storage. <i>Journal of Cleaner Production</i> , <b>2021</b> , 291, 125918	10.3	3
14	Comparative Energy and Exergy Analyses of Air Conditioning Systems Integrated with an Air Enthalpy Exchanger for Different Refrigerants. <i>Journal of Energy Engineering - ASCE</i> , <b>2018</b> , 144, 04018025 <sup>1.7</sup>		2
13	Techno-economic evaluation of different types of solar collectors for water heating application in domestic sector of Saudi Arabia <b>2014</b> ,		2
12	Time Instant Optimization of a Heliostat Field Using a Heuristic Algorithm <b>2014</b> ,		2
11	Performance and cost assessment of a solar HDH desalination system integrated with thermal storage: a case study173, 86-104		2
10	A Comparative Study of Cytotoxicity of PPG and PEG Surface-Modified 2-D TiC MXene Flakes on Human Cancer Cells and Their Photothermal Response. <i>Materials</i> , <b>2021</b> , 14,	3.5	2
9	Evaluation of solar thermal driven cooling system in office buildings in Saudi Arabia. <i>E3S Web of Conferences</i> , <b>2017</b> , 23, 05001	0.5	1
8	Energy and Exergy Assessments of a New Trigenation System Based on Organic Rankine Cycle and Biomass Combustor <b>2010</b> ,		1
7	Instrumentation Selection and Uncertainty Analysis for Performance Test of Small Centrifugal Compressors <b>2004</b> , 701		1
6	Feasibility study for the integration of optical filtration and nano-enhanced phase change materials to the conventional PV-based solar systems. <i>Renewable Energy</i> , <b>2022</b> , 187, 463-483	8.1	1
5	Perovskite-based tandem solar cells: Device architecture, stability, and economic perspectives. <i>Renewable and Sustainable Energy Reviews</i> , <b>2022</b> , 165, 112553	16.2	1
4	Multiwalled CNT and graphene nanoplatelets based nano-enhanced PCMs: Evaluation for the thermal performance and its implications on the performance of hybrid PV/thermal systems. <i>Materials Today Communications</i> , <b>2022</b> , 31, 103618	2.5	0
3	Comparison of physical properties enhancement in various heat transfer nanofluids by MXene <b>2022</b> , 131-150		0
2	Design of Small Centrifugal Compressors Performance Test Facility <b>2004</b> , 227		
1	Energetic Performance Optimization of a H <sub>2</sub> O-LiBr Absorption Chiller Powered by Evacuated Tube Solar Collector. <i>Innovative Renewable Energy</i> , <b>2020</b> , 363-377	0.3	