

Athikesavan Muthu Manokar

List of Publications by Year in descending order

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109
papers

4,257
citations

87888

38
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133252

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116
all docs

116
docs citations

116
times ranked

1332
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of water depth on a novel absorber plate of pyramid solar still coated with TiO ₂ nano black paint. <i>Journal of Cleaner Production</i> , 2019, 213, 185-191.	9.3	199
2	Experimental study on tubular solar still using Graphene Oxide Nano particles in Phase Change Material (NPCM's) for fresh water production. <i>Journal of Energy Storage</i> , 2020, 28, 101204.	8.1	185
3	Different parameters affecting the rate of evaporation and condensation on passive solar still – A review. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 38, 309-322.	16.4	154
4	Sustainable fresh water and power production by integrating PV panel in inclined solar still. <i>Journal of Cleaner Production</i> , 2018, 172, 2711-2719.	9.3	152
5	Experimental investigation on Peltier based hybrid PV/T active solar still for enhancing the overall performance. <i>Energy Conversion and Management</i> , 2018, 168, 371-381.	9.2	136
6	Experimental investigation on hybrid PV/T active solar still with effective heating and cover cooling method. <i>Desalination</i> , 2018, 435, 140-151.	8.2	112
7	Investigation of Inorganic Phase Change Material for a Semi-Transparent Photovoltaic (STPV) Module. <i>Energies</i> , 2020, 13, 3582.	3.1	100
8	Experimental investigation on the effect of water mass in triangular pyramid solar still integrated to inclined solar still. <i>Groundwater for Sustainable Development</i> , 2017, 5, 229-234.	4.6	96
9	Comparative study of an inclined solar panel basin solar still in passive and active mode. <i>Solar Energy</i> , 2018, 169, 206-216.	6.1	89
10	Experimental study on enhancing the yield from stepped solar still coated using fumed silica nanoparticle in black paint. <i>Materials Letters</i> , 2020, 272, 127873.	2.6	88
11	Experimental study on single slope single basin solar still using TiO ₂ nano layer for natural clean water invention. <i>Journal of Energy Storage</i> , 2020, 30, 101522.	8.1	87
12	Integrated PV/T solar still- A mini-review. <i>Desalination</i> , 2018, 435, 259-267.	8.2	82
13	Wall-suspended trays inside stepped distiller with Al ₂ O ₃ /paraffin wax mixture and vapor suction: Experimental implementation. <i>Journal of Energy Storage</i> , 2020, 32, 102008.	8.1	80
14	Comparative Study of Tubular Solar Stills with Phase Change Material and Nano-Enhanced Phase Change Material. <i>Energies</i> , 2020, 13, 3989.	3.1	68
15	A Review on Different Design Modifications Employed in Inclined Solar Still for Enhancing the Productivity. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2019, 141, .	1.8	66
16	Improvising the efficiency of single-sloped solar still using thermally conductive nano-ferric oxide. <i>Environmental Science and Pollution Research</i> , 2020, 27, 32191-32204.	5.3	65
17	Battery thermal management: An optimization study of parallelized conjugate numerical analysis using Cuckoo search and Artificial bee colony algorithm. <i>International Journal of Heat and Mass Transfer</i> , 2021, 166, 120798.	4.8	65
18	Annual performance analysis of adding different nanofluids in stepped solar still. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 138, 3175-3182.	3.6	63

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19	Experimental investigation on the effect of MgO and TiO ₂ nanoparticles in stepped solar still. <i>International Journal of Energy Research</i> , 2019, 43, 3295-3305.	4.5	62
20	Experimental investigation on cooling the photovoltaic panel using hybrid nanofluids. <i>Applied Nanoscience (Switzerland)</i> , 2021, 11, 363-374.	3.1	62
21	Effect of fins and silicon dioxide nanoparticle black paint on the absorber plate for augmenting yield from tubular solar still. <i>Environmental Science and Pollution Research</i> , 2021, 28, 35102-35112.	5.3	60
22	Use of solar photovoltaic with active solar still to improve distillate output: A review. <i>Groundwater for Sustainable Development</i> , 2020, 10, 100341.	4.6	56
23	Effect of water depth and insulation on the productivity of an acrylic pyramid solar still – An experimental study. <i>Groundwater for Sustainable Development</i> , 2020, 10, 100319.	4.6	54
24	Augmenting the productivity of stepped distiller by corrugated and curved liners, CuO/paraffin wax, wick, and vapor suctioning. <i>Environmental Science and Pollution Research</i> , 2021, 28, 56955-56965.	5.3	54
25	Extracting water content from the ambient air in a double-slope half-cylindrical basin solar still using silica gel under Egyptian conditions. <i>Sustainable Energy Technologies and Assessments</i> , 2020, 39, 100712.	2.7	52
26	Investigation on the effect of cottonseed oil blended with different percentages of octanol and suspended MWCNT nanoparticles on diesel engine characteristics. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 525-542.	3.6	51
27	Enhancing the fresh water produced from inclined cover stepped absorber solar still using wick and energy storage materials. <i>Environmental Science and Pollution Research</i> , 2021, 28, 18146-18162.	5.3	50
28	Enhancement of PV/T-integrated single slope solar desalination still productivity using water film cooling and hybrid composite insulation. <i>Environmental Science and Pollution Research</i> , 2020, 27, 32179-32190.	5.3	48
29	Enhancement of potable water production from an inclined photovoltaic panel absorber solar still by integrating with flat-plate collector. <i>Environment, Development and Sustainability</i> , 2020, 22, 4145-4167.	5.0	47
30	Investigation of performance enhancement of solar still incorporated with Gallus gallus domesticus cascara as sensible heat storage material. <i>Environmental Science and Pollution Research</i> , 2021, 28, 611-624.	5.3	47
31	Effect of aluminum balls on the productivity of solar distillate. <i>Journal of Energy Storage</i> , 2020, 30, 101466.	8.1	47
32	Economic and exergy investigation of triangular pyramid solar still integrated to inclined solar still with baffles. <i>International Journal of Ambient Energy</i> , 2019, 40, 571-576.	2.5	46
33	Comparative analysis on freshwater yield from conventional basin-type single slope solar still with cement-coated red bricks: an experimental approach. <i>Environmental Science and Pollution Research</i> , 2020, 27, 32218-32228.	5.3	45
34	Hybrid cooling of cylindrical battery with liquid channels in phase change material. <i>International Journal of Energy Research</i> , 2021, 45, 11065-11083.	4.5	45
35	Different parameters affecting the condensation rate on an active solar still – A review. <i>Environmental Progress and Sustainable Energy</i> , 2019, 38, 286-296.	2.3	44
36	Different parameter and technique affecting the rate of evaporation on active solar still -a review. <i>Heat and Mass Transfer</i> , 2018, 54, 593-630.	2.1	42

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37	Extraction of drinking water from modified inclined solar still incorporated with spiral tube solar water heater. <i>Journal of Water Process Engineering</i> , 2020, 38, 101613.	5.6	42
38	Exergy Analysis of Solar Still with Sand Heat Energy Storage. <i>Applied Solar Energy (English)</i> Tj ETQq0 0 0 rgBT /Overlock 10 Tf, 50 702 Td	1.6	41
39	Experimental studies on inclined PV panel solar still with cover cooling and PCM. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 138, 3987-3995.	3.6	39
40	Phosphate bed as energy storage materials for augmentation of conventional solar still productivity. <i>Environmental Progress and Sustainable Energy</i> , 2021, 40, e13581.	2.3	39
41	Performance analysis of a modified solar still using reduced graphene oxide coated absorber plate with activated carbon pellet. <i>Sustainable Energy Technologies and Assessments</i> , 2021, 45, 101046.	2.7	38
42	Sustainable potable water production from conventional solar still during the winter season at Algerian dry areas: energy and exergy analysis. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 145, 1215-1225.	3.6	37
43	Phosphate bags as energy storage materials for enhancement of solar still performance. <i>Environmental Science and Pollution Research</i> , 2021, 28, 21540-21552.	5.3	37
44	Improvement of humidificationâ€“dehumidification desalination unit using a desiccant wheel. <i>Chemical Engineering Research and Design</i> , 2018, 131, 104-116.	5.6	36
45	Rehash of cooked oil for the palatable water production using single slope solar still. <i>Fuel</i> , 2020, 271, 117613.	6.4	36
46	Energy and exergy efficiency analysis of solar still incorporated with copper plate and phosphate pellets as energy storage material. <i>Environmental Science and Pollution Research</i> , 2021, 28, 48628-48636.	5.3	36
47	Augmenting the potable water produced from single slope solar still using CNT-doped paraffin wax as energy storage: an experimental approach. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2020, 42, 1.	1.6	34
48	A comparative energy and exergy efficiency study of hemispherical and single-slope solar stills. <i>Environmental Science and Pollution Research</i> , 2021, 28, 35649-35659.	5.3	34
49	Recent advancements, technologies, and developments in inclined solar stillâ€“a comprehensive review. <i>Environmental Science and Pollution Research</i> , 2021, 28, 35346-35375.	5.3	34
50	Design and Analysis of Solar Still. <i>Materials Today: Proceedings</i> , 2017, 4, 9179-9185.	1.8	33
51	Experimental studies on passive inclined solar panel absorber solar still. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 3649-3660.	3.6	33
52	Building integrated photovoltaic modules and the integration of phase change materials for equatorial applications. <i>Building Services Engineering Research and Technology</i> , 2020, 41, 634-652.	1.8	33
53	Review of different methods employed in pyramidal solar still desalination to augment the yield of freshwater. , 0, 136, 20-30.		32
54	A comprehensive review on recent advancements in cooling of solar photovoltaic systems using phase change materials. <i>International Journal of Low-Carbon Technologies</i> , 2022, 17, 768-783.	2.6	31

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55	Comparative study of finned acrylic solar still and galvanised iron solar still. <i>Materials Today: Proceedings</i> , 2017, 4, 8323-8327.	1.8	29
56	Experimental investigation on pyramid solar still in passive and active mode. <i>Heat and Mass Transfer</i> , 2019, 55, 1045-1058.	2.1	29
57	Experimental and empirical investigation of a CI engine fuelled with blends of diesel and roselle biodiesel. <i>Scientific Reports</i> , 2021, 11, 18865.	3.3	27
58	An experimental investigation of a water desalination unit using different microparticle-coated absorber plate: yield, thermal, economic, and environmental assessments. <i>Environmental Science and Pollution Research</i> , 2021, 28, 37371-37386.	5.3	26
59	Experimental Analysis of Single Basin Single Slope Finned Acrylic Solar Still. <i>Materials Today: Proceedings</i> , 2017, 4, 7234-7239.	1.8	25
60	Performance enhancements of conventional solar still using reflective aluminium foil sheet and reflective glass mirrors: energy and exergy analysis. <i>Environmental Science and Pollution Research</i> , 2021, 28, 32508-32516.	5.3	25
61	Enhancing the solar still output using micro/nano-particles of aluminum oxide at different concentrations: An experimental study, energy, exergy and economic analysis. <i>Sustainable Materials and Technologies</i> , 2021, 29, e00291.	3.3	23
62	Energy, exergy and economic investigation of passive and active inclined solar still: experimental study. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 145, 1091-1102.	3.6	22
63	Experimental investigation on the effect of sensible heat energy storage in an inclined solar still with baffles. , 0, 116, 49-56.		22
64	Experimental study on conventional solar still integrated with inclined solar still under different water depth. <i>Heat Transfer - Asian Research</i> , 2019, 48, 100-114.	2.8	21
65	Integrated Taguchi-GRA-RSM optimization and ANN modelling of thermal performance of zinc oxide nanofluids in an automobile radiator. <i>Case Studies in Thermal Engineering</i> , 2021, 26, 101068.	5.7	21
66	Energy and exergy analysis of conventional acrylic solar still with and without copper fins. <i>Environmental Science and Pollution Research</i> , 2022, 29, 6194-6204.	5.3	21
67	Effect of mass flow rate on fresh water improvement from inclined PV panel basin solar still. <i>Materials Today: Proceedings</i> , 2020, 32, 374-378.	1.8	20
68	Energy, Exergy Analysis, and Optimizations of Collector Cover Thickness of a Solar Still in El Oued Climate, Algeria. <i>International Journal of Photoenergy</i> , 2021, 2021, 1-8.	2.5	20
69	Experimental investigation on the thermal performance of inserted helical tube three-fluid heat exchanger using graphene/water nanofluid. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 5087-5100.	3.6	20
70	Sand dunes effect on the productivity of a single slope solar distiller. <i>Heat and Mass Transfer</i> , 2020, 56, 1117-1126.	2.1	19
71	Performance assessment of free standing and building integrated grid connected photovoltaic system for southern part of India. <i>Building Services Engineering Research and Technology</i> , 2021, 42, 237-248.	1.8	19
72	Influence of fins on the absorber plate of tubular solar still- An experimental study. <i>Materials Today: Proceedings</i> , 2021, 46, 3270-3274.	1.8	19

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73	Experimental study on effect of different mass flow rate in an inclined solar panel absorber solar still integrated with spiral tube water heater. , 0, 176, 285-291.		18
74	Experimental investigation on pyramid solar still with single and double collector coverâ€”Comparative study. Heat Transfer - Asian Research, 2020, 49, 103-119.	2.8	17
75	Year around distilled water production, energy, and economic analysis of solar stillsâ€”A comparative study. Heat Transfer, 2020, 49, 3651-3662.	3.0	17
76	Experimental investigation on pressure and heat release HCCI engine operated with chicken fat oil/diesel-gasoline blends. Materials Today: Proceedings, 2020, 32, 437-444.	1.8	17
77	Investigating the effect of sensible and latent heat storage materials on the performance of a single basin solar still during winter days. Journal of Energy Storage, 2021, 44, 103480.	8.1	17
78	Performance Analysis of Parabolic trough Concentrating Photovoltaic Thermal System. Procedia Technology, 2016, 24, 485-491.	1.1	16
79	An extensive review on thermodynamic aspect based solar desalination techniques. Journal of Thermal Analysis and Calorimetry, 2021, 145, 1103-1119.	3.6	16
80	Comparative study of a conventional solar still with different basin materials using exergy analysis. , 0, 224, 55-64.		16
81	A comparative study of 3E (energy, exergy, and economy) analysis of various solar stills. Heat Transfer, 2020, 49, 4394-4409.	3.0	15
82	Effect of Design Parameters on Fresh Water Produced from Triangular Basin and Conventional Basin Solar Still. International Journal of Photoenergy, 2021, 2021, 1-8.	2.5	15
83	Review on progress in concrete solar water collectors. Environmental Science and Pollution Research, 2021, 28, 22296-22309.	5.3	15
84	Exergy and energy analysis of a tubular solar still with and without fins: a comparative theoretical and experimental approach. Environmental Science and Pollution Research, 2022, 29, 6612-6621.	5.3	15
85	Exploitation of an insulated air chamber as a glazed cover of a conventional solar still. Heat Transfer - Asian Research, 2019, 48, 1563-1574.	2.8	14
86	Experimental investigation of a hybrid setup for distilled water and power production. , 0, 162, 30-36.		14
87	Effect of Insulation on Energy and Exergy Effectiveness of a Solar Photovoltaic Panel Incorporated Inclined Solar Stillâ€”An Experimental Investigation. Green Energy and Technology, 2019, , 275-292.	0.6	13
88	Experimental investigation on the effect of photovoltaic panel partially and fully submerged in water. Heat Transfer - Asian Research, 2019, 48, 1709-1721.	2.8	13
89	Exhaust emission characteristics study of light and heavy-duty diesel vehicles in India. Case Studies in Thermal Engineering, 2022, 29, 101709.	5.7	13
90	Theoretical Analysis of Continuous Heat Extraction from Absorber of Solar Still for Improving the Productivity. Periodica Polytechnica, Mechanical Engineering, 2018, 62, 187-195.	1.4	12

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91	Experimental investigation of an active inclined solar panel absorber solar stillâ€™ energy and exergy analysis. Environmental Science and Pollution Research, 2022, 29, 14005-14018.	5.3	12
92	A relative study on energy and exergy analysis between conventional single slope and novel stepped absorbable plate solar stills. Environmental Science and Pollution Research, 2021, 28, 57602-57618.	5.3	11
93	Performance Evaluation of Modified Solar Still Using Aluminum Foil Sheet as Absorber Cover â€™ A Comparative Study. Journal of Testing and Evaluation, 2021, 49, 3565-3576.	0.7	11
94	Investigation on the performance enhancement of single-slope solar still using green fibre insulation derived from Artocarpus heterophyllus rags reinforced with Azadirachta indica gum. Environmental Science and Pollution Research, 2021, 28, 32879-32890.	5.3	10
95	A study of life cycle conversion efficiency and CO2 role in the pyramid shape solar stills â€™ Comparative analysis. Groundwater for Sustainable Development, 2020, 11, 100413.	4.6	9
96	Performance analysis of a novel thermal energy storage integrated solar dryer for drying of coconuts. Environmental Science and Pollution Research, 2022, 29, 35230-35240.	5.3	9
97	Investigation on heat transfer enhancement of conventional and staggered fin solar air heater coated with CNT-black paintâ€™an experimental approach. Environmental Science and Pollution Research, 2020, 27, 32251-32269.	5.3	8
98	Experimental studies on natural convection open and closed solar drying using external reflector. Environmental Science and Pollution Research, 2022, 29, 1391-1400.	5.3	7
99	Performance analysis of spiral and serpentine tube solar collector with carbon nanotube nanofluids under natural flow method. Heat Transfer - Asian Research, 2019, 48, 2428-2439.	2.8	6
100	Numerical analysis and machine learning for battery thermal performance cooled with different fluids. International Journal of Energy Research, 2022, 46, 21452-21466.	4.5	6
101	Performance improvements of hemispherical solar still using internal aluminum foil sheet as reflector: energy and exergy analysis. Environmental Science and Pollution Research, 2022, 29, 36887-36896.	5.3	5
102	Analysis of a solar still with photovoltaic modules and electrical heater - Energy and exergy approach. Environmental Science and Pollution Research, 2022, 29, 57453-57465.	5.3	5
103	PROCESS OPTIMIZATION AND CHARACTERIZATION OF MANILA TAMARIND SEED OIL EXTRACTED BY THE SOXHLET METHOD. International Journal of Energy for A Clean Environment, 2021, 22, 31-52.	1.1	4
104	Performance analysis of a solar dryer integrated with thermal energy storage using PCM-Al2O3 nanofluids. Environmental Science and Pollution Research, 2022, 29, 50617-50631.	5.3	4
105	Effect of Fly Ash on Mechanical Properties of Compacted Magnesium Reinforced With Sic Particles. Materials Today: Proceedings, 2019, 16, 547-553.	1.8	2
106	Inferences on the effects of geometries and heat transfer fluids in multi-cavity solar receivers by using CFD. Environmental Science and Pollution Research, 2020, 27, 32205-32217.	5.3	2
107	Annual Yield, Energy and Economic Analysis of Tubular Solar Stills with Phase Change Material and Nano-enhanced Phase Change Material. Lecture Notes on Data Engineering and Communications Technologies, 2021, , 463-472.	0.7	2
108	A comparative analysis of the role of carbon dioxide in multi-slope solar stills. International Journal of Ambient Energy, 0, , 1-10.	2.5	2

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109	A brief review of pre-installation requirements of earth-air heat exchanger system for space heating and cooling. Environmental Science and Pollution Research, 0, , .	5.3	0