## Shanmugan Sengottaiyan

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Wick type solar stills: A review. Renewable and Sustainable Energy Reviews, 2013, 20, 322-335.	16.4	88
2	Productivity enhancement of solar still by PCM and Nanoparticles miscellaneous basin absorbing materials. Desalination, 2018, 433, 186-198.	8.2	88
3	Experimental study on single slope single basin solar still using TiO2 nano layer for natural clean water invention. Journal of Energy Storage, 2020, 30, 101522.	8.1	87
4	Experimental and water quality analysis of solar stills with vertical and inclined fins. Groundwater for Sustainable Development, 2020, 11, 100410.	4.6	83
5	Wall-suspended trays inside stepped distiller with Al2O3/paraffin wax mixture and vapor suction: Experimental implementation. Journal of Energy Storage, 2020, 32, 102008.	8.1	80
6	Experimental enhancement of tubular solar still performance using rotating cylinder, nanoparticles' coating, parabolic solar concentrator, and phase change material. Case Studies in Thermal Engineering, 2022, 29, 101705.	5.7	75
7	Titanium oxide nanoparticles as additives in engine oil. Journal of King Saud University, Engineering Sciences, 2018, 30, 116-122.	2.0	72
8	Fine-tuned artificial intelligence model using pigeon optimizer for prediction of residual stresses during turning of Inconel 718. Journal of Materials Research and Technology, 2021, 15, 3622-3634.	5.8	67
9	Performance assessment of a novel solar distiller with a double slope basin covered by coated wick with lanthanum cobalt oxide nanoparticles. Case Studies in Thermal Engineering, 2022, 32, 101859.	5.7	64
10	Efficient artificial intelligence forecasting models for COVID-19 outbreak in Russia and Brazil. Chemical Engineering Research and Design, 2021, 149, 399-409.	5.6	60
11	Performance of single-slope single-basin solar still with sensible heat storage materials. Desalination and Water Treatment, 2012, 41, 195-203.	1.0	54
12	Investigation into the effects of SiO <sub>2</sub> /TiO <sub>2</sub> nanolayer on the thermal performance of solar box type cooker. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2021, 43, 2724-2737.	2.3	54
13	Extracting water content from the ambient air in a double-slope half-cylindrical basin solar still using silica gel under Egyptian conditions. Sustainable Energy Technologies and Assessments, 2020, 39, 100712.	2.7	52
14	Improving the tribological properties of AISI M50 steel using Sns/Zno solid lubricants. Journal of Alloys and Compounds, 2020, 821, 153494.	5.5	50
15	Achievements in mid and high-temperature selective absorber coatings by physical vapor deposition (PVD) for solar thermal Application-A review. Journal of Alloys and Compounds, 2020, 839, 155510.	5.5	50
16	Study on thermal performance of high power LED employing aluminum filled epoxy composite as thermal interface material. Microelectronics Journal, 2014, 45, 1726-1733.	2.0	48
17	Performance enhancement of stepped basin solar still based on OSELM with traversal tree for higher energy adaptive control. Desalination, 2021, 502, 114926.	8.2	45
18	Graphite powder mixed with black paint on the absorber plate of the solar still to enhance yield: An experimental investigation. Desalination, 2021, 520, 115349.	8.2	42

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19	An effect of N+ ion bombardment on the properties of CdTe thin films. Radiation Physics and Chemistry, 2012, 81, 201-207.	2.8	41
20	Performance study on an acrylic mirror boosted solar distillation unit utilizing seawater. Desalination, 2008, 230, 281-287.	8.2	39
21	Thermal investigation of a solar box-type cooker with nanocomposite phase change materials using flexible thermography. Renewable Energy, 2021, 178, 260-282.	8.9	39
22	Thermal analysis of power LED employing dual interface method and water flow as a cooling system. Thermochimica Acta, 2011, 523, 237-244.	2.7	38
23	Fabrication techniques of polymeric nanocomposites: A comprehensive review. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2022, 236, 4843-4861.	2.1	37
24	Artificial Intelligence for Forecasting the Prevalence of COVID-19 Pandemic: An Overview. Healthcare (Switzerland), 2021, 9, 1614.	2.0	33
25	Influence of Sm3+ ion in structural, morphological, and electrochemical properties of LiMn2O4 synthesized by microwave calcination. Ionics, 2010, 16, 351-360.	2.4	29
26	Energy and exergy analysis of single slope single basin solar still. International Journal of Ambient Energy, 2012, 33, 142-151.	2.5	27
27	Revealing prediction of perched cum off-centered wick solar still performance using network based on optimizer algorithm. Chemical Engineering Research and Design, 2022, 161, 188-200.	5.6	26
28	Improvement of Thermal Performance of a Solar Box Type Cooker Using SiO2/TiO2 Nanolayer. Silicon, 2022, 14, 557-565.	3.3	25
29	Review on passive solar distillation. Desalination and Water Treatment, 2011, 28, 217-238.	1.0	24
30	Synthesis and characterization of 10% Sb doped CdTe thin films by stacked elemental layer (SEL) method. Materials Letters, 2009, 63, 1189-1191.	2.6	23
31	Investigation on single crystal by tartaric acid–barium chloride: growth and characterization of novel NLO materials. Bulletin of Materials Science, 2020, 43, 1.	1.7	22
32	Applications of Heat Exchanger in Solar Desalination: Current Issues and Future Challenges. Water (Switzerland), 2022, 14, 852.	2.7	22
33	Low-cost bilayered structure for improving the performance of solar stills: Performance/cost analysis and water yield prediction using machine learning. Sustainable Energy Technologies and Assessments, 2022, 49, 101783.	2.7	19
34	Thermal Resistance Analysis of High Power Light Emitting Diode Using Aluminum Nitride Thin Film-Coated Copper Substrates as Heat Sink. Journal of Electronic Packaging, Transactions of the ASME, 2014, 136, .	1.8	18
35	Thermal resistance of CNTs-based thermal interface material for high power solid state device packages. Applied Physics A: Materials Science and Processing, 2014, 114, 1145-1152.	2.3	18
36	Experimental and numerical investigation of pressure drop and heat transfer coefficient in converging–diverging microchannel heat sink. Heat and Mass Transfer, 2017, 53, 2265-2277.	2.1	18

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37	Effect of water flow in a solar still using novel materials. Journal of Thermal Analysis and Calorimetry, 0, , 1.	3.6	18
38	Energy and Environment control to Box type Solar Cooker and Nanoparticles mixed bar plate coating with Effect of Thermal Image cooking pot. Materials Today: Proceedings, 2019, 18, 1243-1255.	1.8	18
39	Effect of Ar+ ion irradiation on structural and optical properties of e-beam evaporated cadmium telluride thin films. Materials Science in Semiconductor Processing, 2010, 13, 298-302.	4.0	17
40	Studies on morphological change and optical properties for various Zn concentrations in CdTe thin film prepared by stacked elemental layer method. Journal of Alloys and Compounds, 2011, 509, 2143-2148.	5.5	16
41	Energy, exergy and entropy analysis of a single-slope floating-cum-tilted wick-type solar still. International Journal of Ambient Energy, 2014, 35, 2-12.	2.5	15
42	Performance analysis of IC engine with ceramic-coated piston. Environmental Science and Pollution Research, 2018, 25, 35210-35220.	5.3	15
43	Evaluation of fuzzy inference in box type solar cooking food image of thermal effect. Environmental and Sustainability Indicators, 2019, 1-2, 100002.	3.3	14
44	Enhancing the use of coal-fly ash in coarse aggregates concrete. Materials Today: Proceedings, 2020, 30, 174-182.	1.8	13
45	Performance Testing of 3-W LED Mounted on ZnO Thin Film Coated Al as Heat Sink Using Dual Interface Method. IEEE Transactions on Electron Devices, 2013, 60, 2290-2295.	3.0	12
46	Fuzzy Interference Treatment applied to Energy Control with effect of Box type Affordable Solar Cooker. Materials Today: Proceedings, 2019, 18, 1280-1290.	1.8	12
47	Revealing an OSELM based on traversal tree for higher energy adaptive control using an efficient solar box cooker. Solar Energy, 2021, 218, 320-336.	6.1	12
48	Synthesis and enhanced antibacterial using plant extracts with silver nanoparticles: Therapeutic application. Inorganic Chemistry Communication, 2021, 134, 109045.	3.9	12
49	SiO2/TiO2 nanolayer synergistically trigger thermal absorption inflammatory responses materials for performance improvement of stepped basin solar still natural distiller. Sustainable Energy Technologies and Assessments, 2022, 52, 101974.	2.7	12
50	Ground water treatment using solar radiation-vaporization & condensation-techniques by solar desalination system. International Journal of Ambient Energy, 2022, 43, 2868-2874.	2.5	11
51	Comparative Study between SiC Reinforced Al 64430 Metal Matrix Composites and RHA Reinforced Al 64430 Metal Matrix Composites. Advanced Materials Research, 0, 1119, 234-238.	0.3	10
52	Poly (3-hydroxybutyrate- <i>co</i> -15 mol% 3hydroxyhexanoate)/ZnO nanocomposites by solvent casting method: a study of optical, surface, and thermal properties. Materials Research Express, 2017, 4, 015301.	1.6	10
53	Performance and Thermal Analysis of Aluminium Oxide Filled Epoxy Composite as TIM for LEDs. Material Science Research India, 2014, 11, 35-41.	0.7	10
54	Microcontroller PIC 16F877A standard based on solar cooker using PV—evacuated tubes with an extension of heat integrated energy system. Environmental Science and Pollution Research, 2022, 29, 15863-15875.	5.3	10

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55	Thermal asymmetry model of single slope single basin solar still with sponge liner. Thermal Science, 2014, 18, 439-450.	1.1	9
56	BN thin film as thermal interface mateiral for high power LED: thermal resistance and optical analysis. Optical and Quantum Electronics, 2014, 46, 337-344.	3.3	9
57	Influence of annealed Cu–Al2O3 thin film on the performance of high power LED: thermal and optical analysis. Optical and Quantum Electronics, 2016, 48, 1.	3.3	9
58	Structural Analysis of ZnO Nanoparticles Reinforced P(3HB-co-15Âmol% 3HHx) Bioplastic Composite. Journal of Polymers and the Environment, 2017, 25, 1251-1261.	5.0	9
59	Performance analysis of waste brick magnesia as a storage material in a solar still. Heat Transfer, 2021, 50, 1799-1811.	3.0	9
60	Simulation study on thermal performance of a Solar box Cooker using nanocomposite for natural Food invention. Environmental Science and Pollution Research, 2021, 28, 50649-50667.	5.3	9
61	Extraction and characterization of silica from agro-waste for energy applications. , 2017, , .		8
62	Influence of Molar Concentration: Sol-Gel Synthesized Magnesium Oxide Thin Films for High Power Light Emitting Diode Thermal Management. IOP Conference Series: Earth and Environmental Science, 2019, 268, 012118.	0.3	8
63	Experimental analysis of Energy and Environment redeemable in solar Nano-basin still to improve Sullage Water Natural Treatment of Fuzzy Application. Materials Today: Proceedings, 2019, 18, 1263-1271.	1.8	8
64	Solar cooking thermal image processing applied to time series analysis of fuzzy stage and inconsiderable Fourier transform method. Materials Today: Proceedings, 2021, 34, 460-468.	1.8	8
65	Experimental Investigation on the Performance of a Solar Still Using SiO2 Nanoparticles /Jatropha curcas L. Silicon, 2022, 14, 3501-3514.	3.3	8
66	A concise review on Solar still with parabolic trough collector. International Journal of Ambient Energy, 2022, 43, 4812-4819.	2.5	8
67	Antibacterial Activity and Electrical Properties of Gold Nanoparticle Doped Ceria-Rice Husk Silica (Au/Ce-Silica) Nanocomposites Derived From Biomass. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2015, 45, 304-308.	0.6	7
68	Heat transfer enhancement in lightâ€emitting diode packaging employing different molar concentration of magnesium oxide thin films as a heat spreader. International Journal of Energy Research, 2020, 44, 9527-9537.	4.5	7
69	Laplacian tactic for the prediction of the temperature components of solar cooker with logical prediction by fuzzy rules. Solar Energy, 2022, 236, 369-382.	6.1	7
70	Structural and thermal performance of Ag, Ni, and Ag/Ni thin films as thermal interface material for light-emitting diode application. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	6
71	Performance of Chemical Vapor Deposited Boron-Doped AlN Thin Film as Thermal Interface Materials for 3-W LED: Thermal and Optical Analysis. Acta Metallurgica Sinica (English Letters), 2018, 31, 97-104.	2.9	6
72	Formation and speciation of Sullage Water Natural Conduct analysis of Fuzzy logic Application by Solar Distillation. International Journal of Engineering and Technology(UAE), 2018, 7, 444.	0.3	6

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73	Parametric optimization of a box-type solar cooker with an inbuilt paraboloid reflector using Cramer's rule. International Journal of Sustainable Energy, 2012, 31, 213-227.	2.4	5
74	Synthesis of In2O3 Thin Films from Indium Thin Film by Hot-Water Oxidation Method. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2012, 43, 6-9.	2.2	5
75	Synthesis and Properties of Nano Structured SnO2 Thin Films Prepared by Hot Water Oxidation of Metallic Sn Thin Film. Materials Focus, 2014, 3, 48-54.	0.4	5
76	Growth and Characterization of L-Lysine Monohydrochloride Dihydrate (LMHCl) Single Crystals by Slow Evaporation Technique. Materials Today: Proceedings, 2019, 18, 1256-1262.	1.8	5
77	Performance of single slope solar still for socio-economic development in coast locations in India. International Journal of Ambient Energy, 2022, 43, 5175-5183.	2.5	5
78	Optical properties of amorphous ZnO thin film prepared from boiled Zn thin film in ultra high pure water. EPJ Applied Physics, 2012, 58, 30301.	0.7	4
79	Thermal transient analysis of LED using carbon doped AlN film deposited on metal substrate as heat sink. Optical and Quantum Electronics, 2015, 47, 1245-1253.	3.3	4
80	High Performance of Solar Cooker by Heat Transfer Mode Condition System Using Fuzzy Logic Controller Applications. International Journal of Engineering and Technology(UAE), 2018, 7, 278.	0.3	4
81	Impact of ZnO Nanoparticles on Thermal Properties of Poly(3-hydroxybutyrate-co-10 mol %) Tj ETQq1 1 0.784314	rgBT /Ove	erlock 10 Tf
82	Polysiloxane-graphite composites as thermal interface material for light emitting diode application: a study on impact of graphite nanopowder on thermal and surface properties. Polymer-Plastics Technology and Materials, 2020, 59, 106-115.	1.3	4
83	Melt compounded polylactic acid-hexagonal boron nitride-aluminum oxide hybrid composites for electronic applications: impact of hybrid fillers on thermophysical, dielectric, optical, and hardness properties. Polymer-Plastics Technology and Materials, 2021, 60, 147-164.	1.3	4
84	Synthesis and Characterization of Powder Silica: A Judicious Recycling of the Natural Ceramic Rice Husk Ash. Silicon, 0, , 1.	3.3	4
85	High thermal conductivity, UV-stabilized poly(3-hydroxybutyrate-co-3-hydroxyvalerate) hybrid composites for electronic applications: effect of different hybrid fillers on structural, thermal, optical, and mechanical properties. Polymer-Plastics Technology and Materials, 2021, 60, 1273-1291.	1.3	4
86	Stability Analysis of Self-propelled Aerial Man Lift Vehicles. International Journal of Vehicle Structures and Systems, 2018, 9, .	0.2	4
87	Heat transfer in high-power LED with thermally conductive particle-filled epoxy composite as thermal interface material for system-level analysis. , 2013, , .		3
88	Performance evaluation of an acrylic mirror booster solar still for neera concentration in jaggery-making industry. International Journal of Sustainable Energy, 2014, 33, 261-272.	2.4	3
89	Investigation of third-order nonlinear optical semi organic potassium bromide malate single crystals for optoelectronic applications. Materials Today: Proceedings, 2020, 30, 115-122.	1.8	3
90	A new class single crystal l-lysine hydrogen chloride (LLHC) for optoelectronic applications. Journal of Materials Science: Materials in Electronics, 2021, 32, 26351-26358.	2.2	3

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91	Optical Properties and Surface Morphology of Zinc Telluride Thin Films Prepared by Stacked Elemental Layer Method. Medziagotyra, 2012, 18, .	0.2	2
92	Thermal analysis of single slope single basin solar still with fin wick material in the basin. , 2013, , .		2
93	Study on thermal performance of high power LED employing aluminium filled epoxy composite as thermal interface material. , 2013, , .		2
94	Modeling and performance analysis of honeycomb double exposure solar still. , 2013, , .		2
95	Analysis of ZnO Thin Film as Thermal Interface Material for High Power Light Emitting Diode Application. Journal of Electronic Packaging, Transactions of the ASME, 2016, 138, .	1.8	2
96	Synthesis, characterization of Ta2O5 nanoparticles with doping SnO2– Ag on solar absorber material and designs analysis of energy production for solar cooker. Materials Today: Proceedings, 2020, 30, 190-196.	1.8	2
97	Synthesis and characterization of crystalline perfection on l-Lysine co-doping glycine barium chloride/C6H14N2O2 (L-LGBCAC) single crystal for NLO materials. Materials Today: Proceedings, 2020, 30, 57-61.	1.8	2
98	Synthesis and characterization of L-threonine ammonium bromide: grown on single crystal with experimental studies on NLO. Bulletin of Materials Science, 2021, 44, 1.	1.7	2
99	Synthesis and properties of 10% Zn layered CdTe thin films by SEL method. EPJ Applied Physics, 2011, 56, 10301.	0.7	1
100	Electrical and morphological analysis of oxygen plasma treated Zn metal thin films. EPJ Applied Physics, 2012, 58, 10802.	0.7	1
101	Formation of Copper oxide thin films from RF sputtered Cu thin film by ultra high pure boiled water. , 2012, , .		1
102	Thermal resistance of high power LED on surface modified heat sink. Frontiers of Optoelectronics, 2013, 6, 160-166.	3.7	1
103	Thermal modeling of double slope wick-type solar still with different thickness insulation absorption of wick surface. , 2013, , .		1
104	Surface and electrical properties of plasma processed RF sputtered GaN thin films. EPJ Applied Physics, 2014, 68, 30303.	0.7	1
105	Structural and Optical Properties of Ultra-high Pure Hot Water Processed Ga2O3 Thin Film. Medziagotyra, 2016, 22, .	0.2	1
106	Thermal substrates for efficient heat dissipation in LED packaging application. , 2016, , .		1
107	Properties of inductively coupled N2plasma processed AlInN thin film prepared by post annealing of rf sputtered Al/InN stack. Materials Research Express, 2016, 3, 126301.	1.6	1
108	Heat transfer enhancement in MOSFET mounted on different FR4 substrates by thermal transient measurement. Chinese Physics B, 2017, 26, 098901.	1.4	1

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109	EVALUATION ON THE THERMAL AND STRUCTURAL PROPERTIES OF COPPER ALUMINUM OXIDE (Cu-Al2O3) THIN FILM ON AL SUBSTRATE: EFFECT OF ANNEALING TEMPERATURE. Surface Review and Letters, 2018, 25, 1950017.	1.1	1
110	A review on various CMOS circuit styles. Materials Today: Proceedings, 2020, 30, 104-114.	1.8	1
111	Impact of aluminum oxide nanopowder on thermal, optical and surface properties of polysiloxane-aluminum oxide composites as elastomeric thermal pad for light emitting diode application. Polymer-Plastics Technology and Materials, 2020, 59, 1124-1137.	1.3	1
112	The influence of Cu2ZnSnS4 thin films with characteristics of treatment conditions on spray pyrolysis technique for solar cells applications. Indian Journal of Physics, 2022, 96, 707-716.	1.8	1
113	Solar cells absorption viewpoint of Mie theory: Experimental analysis of TiO2 doping V/Ce. Materials Today: Proceedings, 2022, 51, 1124-1128.	1.8	1
114	Biogenic silver nanoparticles of antibacterial activities for poly-herbal extracts in novel medicine. Materials Today: Proceedings, 2022, 51, 1107-1114.	1.8	1
115	Performance of Light Emitting Diode on Surface Machined Heat Sink. International Journal of Power Electronics and Drive Systems, 2012, 2, .	0.6	1
116	Morphological Studies on Ag Doped CdTe Thin Films Prepared By Stacked Elemental Layer (SEL) Method. , 2010, , .		0
117	Studies on Structural Properties of CdTe (Doped Ag) Thin Films on Glass Substrates-Solar Cell Applications. , 2010, , .		0
118	Structural and Optical Properties of Zn Doped CdTe Thin Films by Stacked Elemental Layer Method. Advanced Materials Research, 0, 383-390, 3279-3285.	0.3	0
119	A Study on the Effect of Process Parameters on Surface Topography of Al Thin Films on Various Substrates Using AFM. Advanced Materials Research, 0, 383-390, 903-908.	0.3	0
120	Thermal modeling of double slope wick-type solar still with different thickness insulation absorption of wick surface. , 2013, , .		0
121	Thermal performance of box-type solar cooker with inbuilt paraboloid reflector. , 2013, , .		0
122	GROWTH OF SPUTTERED-ALUMINUM OXIDE THIN FILMS ON Si (100) AND Si (111) SUBSTRATES WITH Al2O3 BUFFER LAYER. Surface Review and Letters, 2016, 23, 1650016.	1.1	0
123	Sullage treatment of full solar energy process high way service of H <inf>2</inf> O in nano particles — Solar still waste water. , 2017, , .		0
124	Experimental analysis of a multi-sponge liner basins techniques of solar distillation. , 2017, , .		0
125	Trans membranous fetal movement and pressure sensing. Materials Today: Proceedings, 2020, 30, 62-68.	1.8	0
126	Growth and characterization study of pure and C4H6O5/C2H2O4/Li2SO4 doped L-Lysine single crystal for NLO applications. Materials Today: Proceedings, 2020, 30, 69-77.	1.8	0

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127	Strategies in Absorbing Materials Productivity (H2O) of Renewable Energy Utilization by a Solar Still to Enhancement of Water Flowing over Glass Cover with the Influence of PCM and Nanoparticles. , 2020, , .		0
128	Growth and investigation on novel single crystal of β-cyclodextrin 2, 4-dinitrophenylhydrazine for optical sensors applications. Materials Today: Proceedings, 2020, 30, 45-51.	1.8	0
129	Influence of l-Lysine-doped Tartaric Acid–Potassium Bromide single crystals: growth and characterization of photonic applications. Indian Journal of Physics, 2021, 95, 1325-1331.	1.8	0
130	Synergetic effect of micro-hBN and nano-Al2O3 fillers on structural, surface, thermal, and mechanical properties of PLA/hBN/Al <sub>2</sub> O <sub>3</sub> hybrid composites: experimental and theoretical investigation. Polymer-Plastics Technology and Materials, 2021, 60, 917-936.	1.3	0
131	Synthesis of Nano-Structured Sb <sub>2</sub> Te <sub>3</sub> Thin Films by Stacked Elemental Layer Method. Journal of Nanoelectronics and Optoelectronics, 2010, 5, 304-309.	0.5	0
132	Finite Element Modelling of Bi-Material Interface for Crack Growth Evaluation: Technical Note. International Journal of Vehicle Structures and Systems, 2018, 9, .	0.2	0
133	Testing and Analysis of Ar Plasma Processed LED at Different Ar Gas Flow Rate and Process Time: Thermal and Surface Verification. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2022, 12, 1007-1014	2.5	Ο