

L Syam Sundar

List of Publications by Year in descending order

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papers

6,095
citations

61857

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76769

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77
docs citations

77
times ranked

3096
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced heat transfer and friction factor of MWCNT-Fe ₃ O ₄ /water hybrid nanofluids. International Communications in Heat and Mass Transfer, 2014, 52, 73-83.	2.9	482
2	Hybrid nanofluids preparation, thermal properties, heat transfer and friction factor – A review. Renewable and Sustainable Energy Reviews, 2017, 68, 185-198.	8.2	406
3	Investigation of thermal conductivity and viscosity of Fe ₃ O ₄ nanofluid for heat transfer applications. International Communications in Heat and Mass Transfer, 2013, 44, 7-14.	2.9	350
4	Experimental thermal conductivity of ethylene glycol and water mixture based low volume concentration of Al ₂ O ₃ and CuO nanofluids. International Communications in Heat and Mass Transfer, 2013, 41, 41-46.	2.9	240
5	Turbulent heat transfer and friction factor of Al ₂ O ₃ Nanofluid in circular tube with twisted tape inserts. International Journal of Heat and Mass Transfer, 2010, 53, 1409-1416.	2.5	233
6	Thermal conductivity and viscosity of stabilized ethylene glycol and water mixture Al ₂ O ₃ nanofluids for heat transfer applications: An experimental study. International Communications in Heat and Mass Transfer, 2014, 56, 86-95.	2.9	219
7	Estimation of heat transfer coefficient and friction factor in the transition flow with low volume concentration of Al ₂ O ₃ nanofluid flowing in a circular tube and with twisted tape insert. International Communications in Heat and Mass Transfer, 2009, 36, 503-507.	2.9	212
8	Experimental investigation of forced convection heat transfer and friction factor in a tube with Fe ₃ O ₄ magnetic nanofluid. Experimental Thermal and Fluid Science, 2012, 37, 65-71.	1.5	200
9	Empirical and theoretical correlations on viscosity of nanofluids: A review. Renewable and Sustainable Energy Reviews, 2013, 25, 670-686.	8.2	183
10	Recent advances on the fundamental physical phenomena behind stability, dynamic motion, thermophysical properties, heat transport, applications, and challenges of nanofluids. Physics Reports, 2022, 946, 1-94.	10.3	179
11	Thermal conductivity of ethylene glycol and water mixture based Fe ₃ O ₄ nanofluid. International Communications in Heat and Mass Transfer, 2013, 49, 17-24.	2.9	159
12	Nanodiamond-Fe ₃ O ₄ nanofluids: Preparation and measurement of viscosity, electrical and thermal conductivities. International Communications in Heat and Mass Transfer, 2016, 73, 62-74.	2.9	157
13	Enhanced Thermal Conductivity and Viscosity of Nanodiamond-Nickel Nanocomposite Nanofluids. Scientific Reports, 2014, 4, 4039.	1.6	145
14	Experimental investigation of Al ₂ O ₃ /water nanofluids on the effectiveness of solar flat-plate collectors with and without twisted tape inserts. Renewable Energy, 2018, 119, 820-833.	4.3	123
15	Convective heat transfer and friction factor correlations of nanofluid in a tube and with inserts: A review. Renewable and Sustainable Energy Reviews, 2013, 20, 23-35.	8.2	121
16	Viscosity of low volume concentrations of magnetic Fe ₃ O ₄ nanoparticles dispersed in ethylene glycol and water mixture. Chemical Physics Letters, 2012, 554, 236-242.	1.2	120
17	Experimental investigation of the thermal transport properties of graphene oxide/Co ₃ O ₄ hybrid nanofluids. International Communications in Heat and Mass Transfer, 2017, 84, 1-10.	2.9	117
18	Thermal conductivity and viscosity of hybrid nanofluids prepared with magnetic nanodiamond-cobalt oxide (ND-Co ₃ O ₄) nanocomposite. Case Studies in Thermal Engineering, 2016, 7, 66-77.	2.8	106

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19	Thermal conductivity and viscosity of water based nanodiamond (ND) nanofluids: An experimental study. <i>International Communications in Heat and Mass Transfer</i> , 2016, 76, 245-255.	2.9	100
20	Preparation, characterization, stability, and thermal conductivity of rGO-Fe ₃ O ₄ -TiO ₂ hybrid nanofluid: An experimental study. <i>Powder Technology</i> , 2020, 372, 235-245.	2.1	99
21	Heat transfer, entropy generation, economic and environmental analyses of linear fresnel reflector using novel rGO-Co ₃ O ₄ hybrid nanofluids. <i>Renewable Energy</i> , 2021, 165, 420-437.	4.3	98
22	Effect of full length twisted tape inserts on heat transfer and friction factor enhancement with Fe ₃ O ₄ magnetic nanofluid inside a plain tube: An experimental study. <i>International Journal of Heat and Mass Transfer</i> , 2012, 55, 2761-2768.	2.5	95
23	Comparative study on thermal performance of twisted tape and wire coil inserts in turbulent flow using CuO/water nanofluid. <i>Experimental Thermal and Fluid Science</i> , 2014, 57, 65-76.	1.5	90
24	Heat transfer, friction factor and effectiveness analysis of Fe ₃ O ₄ /water nanofluid flow in a double pipe heat exchanger with return bend. <i>International Communications in Heat and Mass Transfer</i> , 2017, 81, 155-163.	2.9	89
25	Heat transfer enhancements of low volume concentration Al ₂ O ₃ nanofluid and with longitudinal strip inserts in a circular tube. <i>International Journal of Heat and Mass Transfer</i> , 2010, 53, 4280-4286.	2.5	84
26	Experimental investigations in heat transfer and friction factor of magnetic Ni nanofluid flowing in a tube. <i>International Journal of Heat and Mass Transfer</i> , 2014, 70, 224-234.	2.5	78
27	Effectiveness analysis of solar flat plate collector with Al ₂ O ₃ water nanofluids and with longitudinal strip inserts. <i>International Journal of Heat and Mass Transfer</i> , 2018, 127, 422-435.	2.5	75
28	Experimental study of heat transfer and friction factor of Al ₂ O ₃ nanofluid in U-tube heat exchanger with helical tape inserts. <i>Experimental Thermal and Fluid Science</i> , 2015, 62, 141-150.	1.5	71
29	Turbulent heat transfer and friction factor of nanodiamond-nickel hybrid nanofluids flow in a tube: An experimental study. <i>International Journal of Heat and Mass Transfer</i> , 2018, 117, 223-234.	2.5	68
30	Numerical validation of experimental heat transfer coefficient with SiO ₂ nanofluid flowing in a tube with twisted tape inserts. <i>Applied Thermal Engineering</i> , 2014, 73, 296-306.	3.0	67
31	Thermophysical properties using ND/water nanofluids: An experimental study, ANFIS-based model and optimization. <i>Journal of Molecular Liquids</i> , 2021, 330, 115659.	2.3	67
32	Thermal conductivity enhancement of nanoparticles in distilled water. <i>International Journal of Nanoparticles</i> , 2008, 1, 66.	0.1	63
33	Heat transfer and friction factor of multi-walled carbon nanotubes-Fe ₃ O ₄ nanocomposite nanofluids flow in a tube with/without longitudinal strip inserts. <i>International Journal of Heat and Mass Transfer</i> , 2016, 100, 691-703.	2.5	62
34	Optimizing density, dynamic viscosity, thermal conductivity and specific heat of a hybrid nanofluid obtained experimentally via ANFIS-based model and modern optimization. <i>Journal of Molecular Liquids</i> , 2021, 321, 114287.	2.3	61
35	Experimental heat transfer, friction factor and effectiveness analysis of Fe ₃ O ₄ nanofluid flow in a horizontal plain tube with return bend and wire coil inserts. <i>International Journal of Heat and Mass Transfer</i> , 2017, 109, 440-453.	2.5	60
36	Thermophysical properties of water, water and ethylene glycol mixture-based nanodiamond-Fe ₃ O ₄ hybrid nanofluids: An experimental assessment and application of data-driven approaches. <i>Journal of Molecular Liquids</i> , 2022, 347, 117944.	2.3	58

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37	Experimental investigation of thermo-physical properties, heat transfer, pumping power, entropy generation, and exergy efficiency of nanodiamond+Fe ₃ O ₄ /60:40% water-ethylene glycol hybrid nanofluid flow in a tube. <i>Thermal Science and Engineering Progress</i> , 2021, 21, 100799.	1.3	55
38	Synthesis, stability, thermophysical properties and AI approach for predictive modelling of Fe ₃ O ₄ coated MWCNT hybrid nanofluids. <i>Journal of Molecular Liquids</i> , 2021, 340, 117291.	2.3	55
39	Experimental investigation of heat transfer and friction factor with water-propylene glycol based CuO nanofluid in a tube with twisted tape inserts. <i>International Communications in Heat and Mass Transfer</i> , 2013, 46, 13-21.	2.9	54
40	Experimental study on heat transfer, friction factor, entropy and exergy efficiency analyses of a corrugated plate heat exchanger using Ni/water nanofluids. <i>International Journal of Thermal Sciences</i> , 2021, 165, 106935.	2.6	53
41	Heat Transfer Enhancement of Low Volume Concentration of Carbon Nanotube-Fe ₃ O ₄ /Water Hybrid Nanofluids in a Tube With Twisted Tape Inserts Under Turbulent Flow. <i>Journal of Thermal Science and Engineering Applications</i> , 2015, 7, .	0.8	52
42	Experimental thermal conductivity and viscosity of nanodiamond-based propylene glycol and water mixtures. <i>Diamond and Related Materials</i> , 2016, 69, 49-60.	1.8	49
43	Entropy generation and exergy efficiency analysis of ethylene glycol-water based nanodiamond+Fe ₃ O ₄ hybrid nanofluids in a circular tube. <i>Powder Technology</i> , 2021, 380, 430-442.	2.1	48
44	Electrical conductivity enhancement of nanodiamond-nickel (ND-Ni) nanocomposite based magnetic nanofluids. <i>International Communications in Heat and Mass Transfer</i> , 2014, 57, 1-7.	2.9	42
45	Heat Transfer and Second Law Analysis of Ethylene Glycol-Based Ternary Hybrid Nanofluid Under Laminar Flow. <i>Journal of Thermal Science and Engineering Applications</i> , 2021, 13, .	0.8	41
46	Heat transfer, friction factor and effectiveness of Fe ₃ O ₄ nanofluid flow in an inner tube of double pipe U-bend heat exchanger with and without longitudinal strip inserts. <i>Experimental Thermal and Fluid Science</i> , 2017, 85, 331-343.	1.5	39
47	Heat transfer and effectiveness experimentally-based analysis of wire coil with core-rod inserted in Fe ₃ O ₄ /water nanofluid flow in a double pipe U-bend heat exchanger. <i>International Journal of Heat and Mass Transfer</i> , 2019, 134, 405-419.	2.5	39
48	Properties, heat transfer, energy efficiency and environmental emissions analysis of flat plate solar collector using nanodiamond nanofluids. <i>Diamond and Related Materials</i> , 2020, 110, 108115.	1.8	39
49	Experimental investigation on the performance of hybrid Fe ₃ O ₄ coated MWCNT/Water nanofluid as a coolant of a Plate heat exchanger. <i>International Journal of Thermal Sciences</i> , 2022, 171, 107249.	2.6	35
50	Graphene oxide induces cytotoxicity and oxidative stress in bluegill sunfish cells. <i>Journal of Applied Toxicology</i> , 2018, 38, 504-513.	1.4	33
51	Heat transfer and friction factor of nanodiamond-nickel hybrid nanofluids flow in a tube with longitudinal strip inserts. <i>International Journal of Heat and Mass Transfer</i> , 2018, 121, 390-401.	2.5	32
52	Energy, efficiency, economic impact, and heat transfer aspects of solar flat plate collector with Al ₂ O ₃ nanofluids and wire coil with core rod inserts. <i>Sustainable Energy Technologies and Assessments</i> , 2020, 40, 100772.	1.7	32
53	Experimental analysis of exergy efficiency and entropy generation of diamond/water nanofluids flow in a thermosyphon flat plate solar collector. <i>International Communications in Heat and Mass Transfer</i> , 2021, 120, 105057.	2.9	32
54	Efficiency analysis of thermosyphon solar flat plate collector with low mass concentrations of ND-Co ₃ O ₄ hybrid nanofluids: an experimental study. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 143, 959-972.	2.0	29

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55	Enhanced thermal properties of nanodiamond nanofluids. <i>Chemical Physics Letters</i> , 2016, 644, 99-110.	1.2	24
56	Thermal entropy and exergy efficiency analyses of nanodiamond/water nanofluid flow in a plate heat exchanger. <i>Diamond and Related Materials</i> , 2021, 120, 108648.	1.8	19
57	Efficiency, energy and economic analysis of twisted tape inserts in a thermosyphon solar flat plate collector with Cu nanofluids. <i>Renewable Energy Focus</i> , 2020, 35, 10-31.	2.2	18
58	Thermal performance, embodied energy and environmental CO ₂ emissions analyses for double pipe U-bend heat exchanger working with MWCNT/water nanofluid. <i>International Journal of Thermal Sciences</i> , 2021, 169, 107094.	2.6	18
59	The Combined Effect of Al ₂ O ₃ Nanofluid and Coiled Wire Inserts in a Flat-Plate Solar Collector on Heat Transfer, Thermal Efficiency and Environmental CO ₂ Characteristics. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 9187-9214.	1.7	15
60	Second law of thermodynamic analysis of 40:60% propylene glycol and water mixture based nanodiamond nanofluid under transition flow. <i>Diamond and Related Materials</i> , 2021, 117, 108480.	1.8	12
61	Experimental investigation of thermal performance characteristics of sintered copper wick and grooved heat pipes: A comparative study. <i>Journal of Central South University</i> , 2021, 28, 3507-3520.	1.2	11
62	4E (energy, exergy, economic and environmental) investigation of LFR using MXene based silicone oil nanofluids. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 49, 101715.	1.7	10
63	Estimation of Annual Solar Radiation from measured temperatures by using Temperature-based (TB) approach in different cities in India. <i>Sustainable Cities and Society</i> , 2011, 1, 187-194.	5.1	9
64	A Review on the Use of Hybrid Nanofluid in a Solar Flat Plate and Parabolic Trough Collectors and Its Enhanced Collector Thermal Efficiency. <i>Journal of Nanofluids</i> , 2021, 10, 147-171.	1.4	9
65	Biocompatibility and biotoxicity of in-situ synthesized carboxylated nanodiamond-cobalt oxide nanocomposite. <i>Journal of Materials Science and Technology</i> , 2017, 33, 879-888.	5.6	8
66	Heat Transfer and Friction Factor of Al ₂ O ₃ /Nanofluid Flow in a Double Pipe U-Tube Heat Exchanger and with Longitudinal Strip Inserts: An Experimental Study. <i>Journal of Nanofluids</i> , 2015, 4, 293-301.	1.4	7
67	Experimental Investigation of Heat Transfer and Friction Factor Characteristics in a Circular Tube with Longitudinal Strip Inserts. <i>Journal of Enhanced Heat Transfer</i> , 2008, 15, 325-333.	0.5	7
68	The second law of thermodynamic analysis for longitudinal strip inserted nanodiamond-Fe ₃ O ₄ /water hybrid nanofluids. <i>International Journal of Thermal Sciences</i> , 2022, 181, 107721.	2.6	7
69	Experimental investigations on thermal conductivity of water and Al ₂ O ₃ nanofluids at low concentrations. <i>International Journal of Nanoparticles</i> , 2012, 5, 300.	0.1	6
70	Augmentation of Heat Transfer of High Prandtl Number Fe ₃ O ₄ /vacuum pump oil nanofluids flow in a tube with twisted tape inserts in laminar flow. <i>Heat and Mass Transfer</i> , 2020, 56, 3111-3125.	1.2	5
71	Thermal entropy generation and exergy efficiency analyses of coiled wire inserted nanodiamond-Fe ₃ O ₄ /water hybrid nanofluid in a tube. <i>Journal of Thermal Analysis and Calorimetry</i> , 2022, 147, 7917-7944.	2.0	4
72	Turbulent forced convection of Al ₂ O ₃ nanofluid in a circular tube with tape inserts at low volume concentration. <i>International Journal of Nano and Biomaterials</i> , 2009, 2, 60.	0.1	3

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73	Thermosyphon Flat Plate Collector with Nanodiamond-Water Nanofluids: Properties, Friction Factor, Heat Transfer, Thermal Efficiency, and Cost Analysis. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 7211-7226.	1.7	3
74	Thermosyphon solar water heating system with Cu/water nanofluid and wire coil configurations: Efficiency, energy, economic, environmental, and heat transfer study. <i>Environmental Progress and Sustainable Energy</i> , 2021, 40, e13648.	1.3	2
75	Thermophysical, electrical, magnetic, and dielectric properties of hybrid nanofluids. , 2022, , 65-92.		1
76	Hydrothermal properties of hybrid nanofluids. , 2022, , 93-109.		1
77	Experimental Study on Heat Transfer and Friction Factor of Nanodiamond-Nickel (ND-Ni) Nanocomposite Nanofluids Flow in a Tube with Twisted Tape Inserts. <i>Journal of Nanofluids</i> , 2018, 8, 980-989.	1.4	0