L Syam Sundar

List of Publications by Citations

75 papers	4,292 citations	36 h-index	65 g-index
77 ext. papers	5,221 ext. citations	5.1 avg, IF	6.4 L-index

#	Paper	IF	Citations
75	Enhanced heat transfer and friction factor of MWCNT-Fe3O4/water hybrid nanofluids. *International Communications in Heat and Mass Transfer*, **2014**, 52, 73-83	5.8	345
74	Hybrid nanofluids preparation, thermal properties, heat transfer and friction factor – A review. *Renewable and Sustainable Energy Reviews*, **2017**, 68, 185-198	16.2	281
73	Investigation of thermal conductivity and viscosity of Fe3O4 nanofluid for heat transfer applications. *International Communications in Heat and Mass Transfer*, **2013**, 44, 7-14	5.8	253
72	Experimental thermal conductivity of ethylene glycol and water mixture based low volume concentration of Al2O3 and CuO nanofluids. *International Communications in Heat and Mass Transfer*, **2013**, 41, 41-46	5.8	193
71	Turbulent heat transfer and friction factor of Al2O3 Nanofluid in circular tube with twisted tape inserts. *International Journal of Heat and Mass Transfer*, **2010**, 53, 1409-1416	4.9	191
70	Estimation of heat transfer coefficient and friction factor in the transition flow with low volume concentration of Al2O3 nanofluid flowing in a circular tube and with twisted tape insert. *International Communications in Heat and Mass Transfer*, **2009**, 36, 503-507	5.8	181
69	Thermal conductivity and viscosity of stabilized ethylene glycol and water mixture Al2O3 nanofluids for heat transfer applications: An experimental study. *International Communications in Heat and Mass Transfer*, **2014**, 56, 86-95	5.8	172
68	Experimental investigation of forced convection heat transfer and friction factor in a tube with Fe3O4 magnetic nanofluid. *Experimental Thermal and Fluid Science*, **2012**, 37, 65-71	3	159
67	Empirical and theoretical correlations on viscosity of nanofluids: A review. *Renewable and Sustainable Energy Reviews*, **2013**, 25, 670-686	16.2	148
66	Thermal conductivity of ethylene glycol and water mixture based Fe3O4 nanofluid. *International Communications in Heat and Mass Transfer*, **2013**, 49, 17-24	5.8	127
65	Nanodiamond-Fe3O4 nanofluids: Preparation and measurement of viscosity, electrical and thermal conductivities. *International Communications in Heat and Mass Transfer*, **2016**, 73, 62-74	5.8	116
64	Enhanced thermal conductivity and viscosity of nanodiamond-nickel nanocomposite nanofluids. *Scientific Reports*, **2014**, 4, 4039	4.9	107
63	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	16.2	101
62	Viscosity of low volume concentrations of magnetic Fe3O4 nanoparticles dispersed in ethylene glycol and water mixture. *Chemical Physics Letters*, **2012**, 554, 236-242	2.5	99
61	Experimental investigation of Al2O3/water nanofluids on the effectiveness of solar flat-plate collectors with and without twisted tape inserts. *Renewable Energy*, **2018**, 119, 820-833	8.1	91
60	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	5.8	88
59	Thermal conductivity and viscosity of hybrid nanfluids prepared with magnetic nanodiamond-cobalt oxide (ND-Co3O4) nanocomposite. *Case Studies in Thermal Engineering*, **2016**, 7, 66-77	5.6	79

58	Thermal conductivity and viscosity of water based nanodiamond (ND) nanofluids: An experimental study. *International Communications in Heat and Mass Transfer*, **2016**, 76, 245-255	5.8	76
57	Effect of full length twisted tape inserts on heat transfer and friction factor enhancement with Fe3O4 magnetic nanofluid inside a plain tube: An experimental study. *International Journal of Heat and Mass Transfer*, **2012**, 55, 2761-2768	4.9	76
56	Recent advances on the fundamental physical phenomena behind stability, dynamic motion, thermophysical properties, heat transport, applications, and challenges of nanofluids. *Physics Reports*, **2021**, 946, 1-1	27.7	75
55	Comparative study on thermal performance of twisted tape and wire coil inserts in turbulent flow using CuO/water nanofluid. *Experimental Thermal and Fluid Science*, **2014**, 57, 65-76	3	73
54	Heat transfer enhancements of low volume concentration Al2O3 nanofluid and with longitudinal strip inserts in a circular tube. *International Journal of Heat and Mass Transfer*, **2010**, 53, 4280-4286	4.9	70
53	Heat transfer, entropy generation, economic and environmental analyses of linear fresnel reflector using novel rGO-Co3O4 hybrid nanofluids. *Renewable Energy*, **2021**, 165, 420-437	8.1	67
52	Heat transfer, friction factor and effectiveness analysis of Fe3O4/water nanofluid flow in a double pipe heat exchanger with return bend. *International Communications in Heat and Mass Transfer*, **2017**, 81, 155-163	5.8	61
51	Preparation, characterization, stability, and thermal conductivity of rGO-Fe3O4-TiO2 hybrid nanofluid: An experimental study. *Powder Technology*, **2020**, 372, 235-245	5.2	56
50	Experimental investigations in heat transfer and friction factor of magnetic Ni nanofluid flowing in a tube. *International Journal of Heat and Mass Transfer*, **2014**, 70, 224-234	4.9	56
49	Numerical validation of experimental heat transfer coefficient with SiO2 nanofluid flowing in a tube with twisted tape inserts. *Applied Thermal Engineering*, **2014**, 73, 296-306	5.8	56
48	Experimental study of heat transfer and friction factor of Al2O3 nanofluid in U-tube heat exchanger with helical tape inserts. *Experimental Thermal and Fluid Science*, **2015**, 62, 141-150	3	55
47	Effectiveness analysis of solar flat plate collector with Al2O3 water nanofluids and with longitudinal strip inserts. *International Journal of Heat and Mass Transfer*, **2018**, 127, 422-435	4.9	52
46	Thermal conductivity enhancement of nanoparticles in distilled water. *International Journal of Nanoparticles*, **2008**, 1, 66	0.4	49
45	Turbulent heat transfer and friction factor of nanodiamond-nickel hybrid nanofluids flow in a tube: An experimental study. *International Journal of Heat and Mass Transfer*, **2018**, 117, 223-234	4.9	47
44	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. *International Journal of Heat and Mass Transfer*, **2016**, 100, 691-703	4.9	47
43	Heat Transfer Enhancement of Low Volume Concentration of Carbon Nanotube-Fe3O4/Water Hybrid Nanofluids in a Tube With Twisted Tape Inserts Under Turbulent Flow. *Journal of Thermal Science and Engineering Applications*, **2015**, 7,	1.9	46
42	Experimental heat transfer, friction factor and effectiveness analysis of Fe3O4 nanofluid flow in a horizontal plain tube with return bend and wire coil inserts. *International Journal of Heat and Mass Transfer*, **2017**, 109, 440-453	4.9	44
41	Experimental investigation of heat transfer and friction factor with water propylene glycol based CuO nanofluid in a tube with twisted tape inserts. *International Communications in Heat and Mass Transfer*, **2013**, 46, 13-21	5.8	41

40	Experimental thermal conductivity and viscosity of nanodiamond-based propylene glycol and water mixtures. *Diamond and Related Materials*, **2016**, 69, 49-60	3.5	39
39	Optimizing density, dynamic viscosity, thermal conductivity and specific heat of a hybrid nanofluid obtained experimentally via ANFIS-based model and modern optimization. *Journal of Molecular Liquids*, **2021**, 321, 114287	6	35
38	Experimental investigation of thermo-physical properties, heat transfer, pumping power, entropy generation, and exergy efficiency of nanodiamond□Fe3O4/60:40% water-ethylene glycol hybrid nanofluid flow in a tube. *Thermal Science and Engineering Progress*, **2021**, 21, 100799	3.6	34
37	Electrical conductivity enhancement of nanodiamond□nickel (ND□Ni) nanocomposite based magnetic nanofluids. *International Communications in Heat and Mass Transfer*, **2014**, 57, 1-7	5.8	31
36	Heat transfer, friction factor and effectiveness of Fe3O4 nanofluid flow in an inner tube of double pipe U-bend heat exchanger with and without longitudinal strip inserts. *Experimental Thermal and Fluid Science*, **2017**, 85, 331-343	3	27
35	Properties, heat transfer, energy efficiency and environmental emissions analysis of flat plate solar collector using nanodiamond nanofluids. *Diamond and Related Materials*, **2020**, 110, 108115	3.5	27
34	Entropy generation and exergy efficiency analysis of ethylene glycol-water based nanodiamond□Fe3O4 hybrid nanofluids in a circular tube. *Powder Technology*, **2021**, 380, 430-442	5.2	26
33	Heat transfer and friction factor of nanodiamond-nickel hybrid nanofluids flow in a tube with longitudinal strip inserts. *International Journal of Heat and Mass Transfer*, **2018**, 121, 390-401	4.9	24
32	Energy, efficiency, economic impact, and heat transfer aspects of solar flat plate collector with Al2O3 nanofluids and wire coil with core rod inserts. *Sustainable Energy Technologies and Assessments*, **2020**, 40, 100772	4.7	23
31	Heat transfer and effectiveness experimentally-based analysis of wire coil with core-rod inserted in Fe3O4/water nanofluid flow in a double pipe U-bend heat exchanger. *International Journal of Heat and Mass Transfer*, **2019**, 134, 405-419	4.9	22
30	Thermophysical properties using ND/water nanofluids: An experimental study, ANFIS-based model and optimization. *Journal of Molecular Liquids*, **2021**, 330, 115659	6	22
29	Graphene oxide induces cytotoxicity and oxidative stress in bluegill sunfish cells. *Journal of Applied Toxicology*, **2018**, 38, 504-513	4.1	21
28	Synthesis, stability, thermophysical properties and AI approach for predictive modelling of Fe3O4 coated MWCNT hybrid nanofluids. *Journal of Molecular Liquids*, **2021**, 340, 117291	6	21
27	Experimental study on heat transfer, friction factor, entropy and exergy efficiency analyses of a corrugated plate heat exchanger using Ni/water nanofluids. *International Journal of Thermal Sciences*, **2021**, 165, 106935	4.1	20
26	Enhanced thermal properties of nanodiamond nanofluids. *Chemical Physics Letters*, **2016**, 644, 99-110	2.5	19
25	Heat Transfer and Second Law Analysis of Ethylene Glycol-Based Ternary Hybrid Nanofluid Under Laminar Flow. *Journal of Thermal Science and Engineering Applications*, **2021**, 13,	1.9	16
24	Efficiency, energy and economic analysis of twisted tape inserts in a thermosyphon solar flat plate collector with Cu nanofluids. *Renewable Energy Focus*, **2020**, 35, 10-31	5.4	13
23	Experimental analysis of exergy efficiency and entropy generation of diamond/water nanofluids flow in a thermosyphon flat plate solar collector. *International Communications in Heat and Mass Transfer*, **2021**, 120, 105057	5.8	12

22	Efficiency analysis of thermosyphon solar flat plate collector with low mass concentrations of NDCo3O4 hybrid nanofluids: an experimental study. *Journal of Thermal Analysis and Calorimetry*, **2021**, 143, 959-972	4.1	12
21	Estimation of Annual Solar Radiation from measured temperatures by using Temperature-based (TB) approach in different cities in India. *Sustainable Cities and Society*, **2011**, 1, 187-194	10.1	8
20	Experimental investigation on the performance of hybrid Fe3O4 coated MWCNT/Water nanofluid as a coolant of a Plate heat exchanger. *International Journal of Thermal Sciences*, **2022**, 171, 107249	4.1	8
19	Biocompatibility and biotoxicity of in-situ synthesized carboxylated nanodiamond-cobalt oxide nanocomposite. *Journal of Materials Science and Technology*, **2017**, 33, 879-888	9.1	7
18	Heat Transfer and Friction Factor of Al2O3 Nanofluid Flow in a Double Pipe U-Tube Heat Exchanger and with Longitudinal Strip Inserts: An Experimental Study. *Journal of Nanofluids*, **2015**, 4, 293-301	2.2	7
17	Experimental Investigation of Heat Transfer and Friction Factor Characteristics in a Circular Tube with Longitudinal Strip Inserts. *Journal of Enhanced Heat Transfer*, **2008**, 15, 325-333	1.7	7
16	Thermophysical properties of water, water and ethylene glycol mixture-based nanodiamond+Fe3O4 hybrid nanofluids: An experimental assessment and application of data-driven approaches. *Journal of Molecular Liquids*, **2021**, 117944	6	6
15	Thermal performance, embodied energy and environmental CO2 emissions analyses for double pipe U-bend heat exchanger working with MWCNT/water nanofluid. *International Journal of Thermal Sciences*, **2021**, 169, 107094	4.1	5
14	Thermal entropy and exergy efficiency analyses of nanodiamond/water nanofluid flow in a plate heat exchanger. *Diamond and Related Materials*, **2021**, 120, 108648	3.5	4
13	Experimental investigations on thermal conductivity of water and Al2O3 nanofluids at low concentrations. *International Journal of Nanoparticles*, **2012**, 5, 300	0.4	3
12	Turbulent forced convection of Al2O3 nanofluid in a circular tube with tape inserts at low volume concentration. *International Journal of Nano and Biomaterials*, **2009**, 2, 60	0.2	3
11	The Combined Effect of Al2O3 Nanofluid and Coiled Wire Inserts in a Flat-Plate Solar Collector on Heat Transfer, Thermal Efficiency and Environmental CO2 Characteristics. *Arabian Journal for Science and Engineering*,1	2.5	2
10	A Review on the Use of Hybrid Nanofluid in a Solar Flat Plate and Parabolic Trough Collectors and Its Enhanced Collector Thermal Efficiency. *Journal of Nanofluids*, **2021**, 10, 147-171	2.2	2
9	Thermosyphon Flat Plate Collector with Nanodiamond-Water Nanofluids: Properties, Friction Factor, Heat Transfer, Thermal Efficiency, and Cost Analysis. *Arabian Journal for Science and Engineering*, **2021**, 46, 7211-7226	2.5	2
8	Second law of thermodynamic analysis of 40:60% propylene glycol and water mixture based nanodiamond nanofluid under transition flow. *Diamond and Related Materials*, **2021**, 117, 108480	3.5	2
7	Experimental investigation of thermal performance characteristics of sintered copper wicked and grooved heat pipes: A comparative study. *Journal of Central South University*, **2021**, 28, 3507-3520	2.1	2
6	4E (energy, exergy, economic and environmental) investigation of LFR using MXene based silicone oil nanofluids. *Sustainable Energy Technologies and Assessments*, **2022**, 49, 101715	4.7	1
5	Augmentation of Heat Transfer of High Prandtl Number Fe3O4/vacuum pump oil nanofluids flow in a tube with twisted tape inserts in laminar flow. *Heat and Mass Transfer*, **2020**, 56, 3111-3125	2.2	1

4	Hydrothermal properties of hybrid nanofluids **2022**, 93-109		0
3	Thermal entropy generation and exergy efficiency analyses of coiled wire inserted nanodiamond + Fe3O4/water hybrid nanofluid in a tube. *Journal of Thermal Analysis and Calorimetry*,1	4.1	0
2	Thermosyphon solar water heating system with Cu/water nanofluid and wire coil configurations: Efficiency, energy, economic, environmental, and heat transfer study. *Environmental Progress and Sustainable Energy*, **2021**, 40, e13648	2.5	0
1	Thermophysical, electrical, magnetic, and dielectric properties of hybrid nanofluids **2022**, 65-92		