

Dr.S Suresh
List of Publications

TITLE	YEAR
Liquid Metal Gallium in Metal Inserts for Solar Thermal Energy Storage: A Novel Heat Transfer Enhancement Technique S Salyan, B Praveen, H Singh, S Suresh, AS Reddy Solar Energy Materials and Solar Cells 208, 110365	2020
Microencapsulation of nitrate salt for solar thermal energy storage-synthesis, characterisation and heat transfer study V Pethurajan, S Suresh, A Mojiri, AJ Konatt Solar Energy Materials and Solar Cells 206, 110308	2020
An experimental investigation on the effect of gravitational orientation on flow boiling performance in different channel sizes ranges from minichannels to microchannels S Suresh Heat and Mass Transfer, 1-30	2019
A novel indirect solar dryer with inlet fans powered by solar PV panels: drying kinetics of Capsicum Annum and Abelmoschus esculentus with dryer performance M Goud, MVV Reddy, VP Chandramohan, S Suresh Solar Energy 194, 871-885	2019
Photothermal energy conversion enhancement studies using low concentration nanofluids P Kalidoss, S Venkatachalapathy, S Suresh Journal of Solar Energy Engineering 141 (6)	2019
Experimental charging and discharging performance of alumina enhanced pentaerythritol using a shell and tube TES system KP Venkitaraj, S Suresh, B Praveen Sustainable Cities and Society 51, 101767	2019
Evaluation of thermoelectric power generated through waste heat recovery from long ducts and different thermal system configurations R Elankovan, S Suresh, K Karthick, MMMD Hussain, VP Chandramohan Energy 185, 477-491	2019
Energy storage performance of pentaerythritol blended with indium in exhaust heat recovery application KP Venkitaraj, S Suresh, B Praveen Thermochimica Acta 680, 178343	2019
Effect of nano-gallium capsules on thermal energy storage characteristics of manganese organometallic SS-PCM CR Raj, S Suresh, RR Bhavsar, VK Singh, S Reddy Thermochimica Acta 680, 178341	2019
Recent developments in thermo-physical property enhancement and applications of solid solid phase change materials VKS Cyril Reuben Raj, S Suresh, RR Bhavsar Journal of Thermal Analysis and Calorimetry, 1-27	2019
Convective heat transfer studies on helically corrugated tubes with spiraled rod inserts using TiO ₂ /DI water nanofluids S Anbu, S Venkatachalapathy, S Suresh	2019

Journal of Thermal Analysis and Calorimetry 137 (3), 849-864	
Manganese-based layered perovskite solid–solid phase change material: Synthesis, characterization and thermal stability study CR Raj, S Suresh, RR Bhavsar, VK Singh, AS Reddy, A Upadhyay Mechanics of Materials 135, 88-97	2019
Evaluation of solar thermal system configurations for thermoelectric generator applications: A critical review K Karthick, S Suresh, MMMD Hussain, HM Ali, CSS Kumar Solar Energy 188, 111-142	2019
Heat transfer performance of graphene nano-platelets laden micro-encapsulated PCM with polymer shell for thermal energy storage based heat sink B Praveen, S Suresh, V Pethurajan Applied Thermal Engineering 156, 237-249	2019
Modified active solar distillation system employing directly absorbing Therminol 55–Al ₂ O ₃ nano heat transfer fluid and Fresnel lens concentrator M Muraleedharan, H Singh, M Udayakumar, S Suresh Desalination 457, 32-38	2019
Comparative study of heat transfer and friction characteristics of water-based Alumina–copper and Alumina–CNT hybrid nanofluids in laminar flow through pipes MS Hameed, S Suresh, RK Singh Journal of Thermal Analysis and Calorimetry 136 (1), 243-253	2019
Experimental thermal degradation analysis of pentaerythritol with alumina nano additives for thermal energy storage application KP Venkitaraj, S Suresh Journal of Energy Storage 22, 8-16	2019
Theoretical and experimental evaluation of thermal interface materials and other influencing parameters for thermoelectric generator system K Karthick, S Suresh, H Singh, GC Joy, R Dhanuskodi Renewable Energy 134, 25-43	2019
Thermal performance of micro-encapsulated PCM with LMA thermal percolation in TES based heat sink application B Praveen, S Suresh Energy Conversion and Management 185, 75-86	2019
Optical Properties of Copper Oxides (CuO) and Titanium Oxides (TiO ₂) Nanoparticles M Praveen, P Kalidoss, S Suresh Methodology 6 (03)	2019
Investigating the combined effect of square microgrooves and CNT coating on condensation heat transfer GU Kumar, DV Krishnan, S Suresh, MR Thansekhar, RV Prasanna, ... Applied Surface Science 469, 50-60	2019
Erythritol based Nano-PCM for Solar Thermal Energy Storage R Manickam, P Kalidoss, S Suresh, S Venkatachalapathy International Research Journal of Engineering and Technology (IRJET) 6, 1631-6	2019
Modelling and Optimization of Heat Transfer Coefficients for Hot and Cold Sides of Thermoelectric Generator (TEG) system R Elankovan, S Suresh, K Karthick	2019

Experimental investigations of vanadium and nickel distribution while firing petcoke in a circulating fluidised bed test facility J Jaygopal, KG Palappan, M Lakshminarasimhan, M Rajavel, S Suresh International Journal of Oil, Gas and Coal Technology 20 (1), 81-96	2019
Effects of Al ₂ O ₃ , CuO and TiO ₂ nanoparticles on thermal, phase transition and crystallization properties of solid-solid phase change material KP Venkitaraj, S Suresh Mechanics of Materials 128, 64-88	2019
Experimental investigation of solar reversible power generation in Thermoelectric Generator (TEG) using thermal energy storage R Karthick, K., Suresh, S., Joy, G.C., Dhanuskodi Energy for Sustainable Development 48, 107-114	2019
Experimental investigation on melting and solidification behaviour of erythritol in a vertical double spiral coil thermal energy storage system R Anish, V Mariappan, S Suresh Sustainable Cities and Society 44, 253-264	2019
Role of inter-nanowire distance in metal nanowires on pool boiling heat transfer characteristics GU Kumar, S Suresh, MR Thansekhar, D Halpati Journal of colloid and interface science 532, 218-230	2018
Spatial orientation effects on flow boiling performances in open microchannels heat sink configuration under a wide range of mass fluxes KR Balasubramanian, RA Krishnan, S Suresh Experimental Thermal and Fluid Science 99, 392-406	2018
Transient flow boiling performance and critical heat flux evaluation of Al ₂ O ₃ -water nanofluid in parallel microchannels KR Balasubramanian, RA Krishnan, S Suresh Journal of Nanofluids 7 (6), 1035-1044	2018
Multi-walled carbon nanotube laden with D-Mannitol as phase change material: characterization and experimental investigation S Salyan, S Suresh Advanced Powder Technology 29 (12), 3183-3191	2018
Fabrication, characterisation and heat transfer study on microencapsulation of nano-enhanced phase change material V Pethurajan, S Sivan Chemical Engineering and Processing-Process Intensification 133, 12-23	2018
Impact of thermal interface materials for thermoelectric generator systems K Karthick, GC Joy, S Suresh, R Dhanuskodi Journal of Electronic Materials 47 (10), 5763-5772	2018
Experimental study on heat transfer performance of neopentyl glycol/CuO composite solid-solid PCM in TES based heat sink B Praveen, S Suresh Engineering science and technology, an international journal 21 (5), 1086-1094	2018
Facile approach to improve solar thermal energy storage efficiency using encapsulated sugar alcohol based phase change material V Pethurajan, S Sivan, AJ Konatt, AS Reddy	2018

Solar Energy Materials and Solar Cells 185, 524-535	
Low melt alloy enhanced solid-liquid phase change organic sugar alcohol for solar thermal energy storage S Salyan, S Suresh, AS Reddy Journal of Molecular Liquids 266, 29-42	2018
Modified surfaces using seamless graphene/carbon nanotubes based nanostructures for enhancing pool boiling heat transfer GU Kumar, K Soni, S Suresh, K Ghosh, MR Thansekhar, PD Babu Experimental thermal and fluid science 96, 493-506	2018
Issues, comparisons, turbine selections and applications—An overview in organic Rankine cycle V Pethurajan, S Sivan, GC Joy Energy Conversion and Management 166, 474-488	2018
Elucidating the mechanisms behind the boiling heat transfer enhancement using nano-structured surface coatings CSS Kumar, GU Kumar, MRM Arenales, CC Hsu, S Suresh, PH Chen Applied Thermal Engineering 137, 868-891	2018
Experimental study on the thermal performance of nano enhanced pentaerythritol in IC engine exhaust heat recovery application KP Venkitaraj, S Suresh, A Venugopal Applied Thermal Engineering 137, 461-474	2018
Experimental study of an organic rankine cycle using n-hexane as the working fluid and a radial turbine expander V Pethurajan, S Sivan Inventions 3 (2), 31	2018
Experimental heat transfer analysis of macro packed neopentylglycol with CuO nano additives for building cooling applications KP Venkitaraj, S Suresh, B Praveen, SC Nair Journal of Energy Storage 17, 1-10	2018
Study on performance enhancement factors in turbulent flow of CNT/water nanofluid through a tube fitted with helical screw louvered rod inserts P Rathnakumar, SM Iqbal, JJ Michael, S Suresh Chemical Engineering and Processing-Process Intensification 127, 103-110	2018
Heat transfer and pressure drop studies of TiO ₂ /DI water nanofluids in helically corrugated tubes using spiraled rod inserts S Anbu, S Venkatachalapathy, S Suresh Heat and Mass Transfer 54 (5), 1301-1311	2018
Experimental investigation of the effect of heat sink orientation on subcooled flow boiling performance in a rectangular microgap channel RA Krishnan, KR Balasubramanian, S Suresh International Journal of Heat and Mass Transfer 120, 1341-1357	2018
Experimental study on the thermal storage performance and non-isothermal crystallization kinetics of pentaerythritol blended with low melting metal KP Venkitaraj, S Suresh Thermochimica Acta 662, 75-89	2018
Evaluating the scale effects of metal nanowire coatings on the thermal performance of	2018

miniature loop heat pipe DV Krishnan, GU Kumar, S Suresh, MR Thansekhar, U Iqbal Applied Thermal Engineering 133, 727-738	
Radiofrequency Ablation in Complicated Monochorionic Pregnancy: Initial Experience R Shinde, P James, S Suresh, U Ram, S Seshadri Journal of Fetal Medicine 5 (1), 17-22	2018
An experimental investigation on heat transfer enhancement in the laminar flow of water/TiO ₂ nanofluid through a tube heat exchanger fitted with modified butterfly ... KP Venkitaraj, S Suresh, TA Mathew, BS Bibin, J Abraham Heat and Mass Transfer 54 (3), 813-829	2018
The role of reduced graphene oxide on the electrochemical activity of MFe ₂ O ₄ (M= Fe, Co, Ni and Zn) nanohybrids S Suresh, A Prakash, D Bahadur Journal of Magnetism and Magnetic Materials 448, 43-51	2018
Study of thermo-physical properties and cycling stability of D-Mannitol-copper oxide nanocomposites as phase change materials S Salyan, S Suresh Journal of Energy Storage 15, 245-255	2018
Liquid metal gallium laden organic phase change material for energy storage: an experimental study S Salyan, S Suresh International Journal of Hydrogen Energy 43 (4), 2469-2483	2018
Theoretical and experimental evaluation of thermal interface materials and other influencing parameters for thermoelectric generator system H Singh, K Karthick, S Suresh, GC Joy, R Dhanuskodi Elsevier	2018
Solar Thermal Energy Storage Using Graphene Nanoplatelets-Added Phase Change Materials S Suresh, S Salyan Applications of Solar Energy, 187-205	2018
Experimental studies of water-based titanium oxide nanofluid in a circular pipe under transition flow with conical strip inserts M Arulprakasajothi, K Elangovan, U Chandrasekhar, S Suresh Heat Transfer Research 49 (5)	2018
Performance study of conical strip inserts in tube heat exchanger using water based titanium oxide nanofluid M Arulprakasajothi, K Elangovan, U Chandrasekhar, S Suresh Thermal Science 22 (1 Part B), 477-485	2018
Synthesis and Characterization of Nanostructured NiCrFeSiB HVOF Coating B Thiagarajan, V Senthilkumar, S Suresh Transactions of the Indian Institute of Metals 70 (10), 2555-2561	2017
Effect of diameter of metal nanowires on pool boiling heat transfer with FC-72 U Kumar, S Suresh, MR Thansekhar, D Babu Applied Surface Science 423, 509-520	2017
Experimental study on thermal and chemical stability of pentaerythritol blended with low melting alloy as possible PCM for latent heat storage	2017

KP Venkitaraj, S Suresh Experimental Thermal and Fluid Science 88, 73-87	
Pentaerythritol with alumina nano additives for thermal energy storage applications KP Venkitaraj, S Suresh, B Praveen, A Venugopal, SC Nair Journal of Energy Storage 13, 359-377	2017
Convective Heat Transfer and Pressure Drop Characteristics of Al ₂ O ₃ -CNT/Water Hybrid Nanofluid in Straight Circular Tube Under Turbulent Flow MS Hameed, S Suresh Journal of Nanofluids 6 (4), 743-750	2017
The effect of heating area orientation on flow boiling performance in microchannels heat sink under subcooled condition RA Krishnan, KR Balasubramanian, S Suresh International Journal of Heat and Mass Transfer 110, 276-293	2017
Graphene nanoplatelets enhanced myo-inositol for solar thermal energy storage DK Singh, S Suresh, H Singh Thermal Science and Engineering Progress 2, 1-7	2017
Protecting silicon film anodes in lithium-ion batteries using an atomically thin graphene drape S Suresh, ZP Wu, SF Bartolucci, S Basu, R Mukherjee, T Gupta, ... ACS nano 11 (5), 5051-5061	2017
Investigations into nanofluids as direct solar radiation collectors BAJ Rose, H Singh, N Verma, S Tassou, S Suresh, N Anantharaman, ... Solar Energy 147, 426-431	2017
An experimental study of heat transfer and pressure drop characteristics of divergent wavy minichannels using nanofluids A Dominic, J Sarangan, S Suresh, VS Devahdhanush Heat and Mass Transfer 53 (3), 959-971	2017
Energy and economic analysis of Vacuum Insulation Panels (VIPs) used in non-domestic buildings M Alam, H Singh, S Suresh, DAG Redpath Applied Energy 188, 1-8	2017
Myo-inositol based nano-PCM for solar thermal energy storage DK Singh, S Suresh, H Singh, BAJ Rose, S Tassou, N Anantharaman Applied Thermal Engineering 110, 564-572	2017
Directly absorbing Therminol-Al ₂ O ₃ nano heat transfer fluid for linear solar concentrating collectors M Muraleedharan, H Singh, S Suresh, M Udayakumar Solar Energy 137, 134-142	2016
Experimental investigation on heat transfer effect of conical strip inserts in a circular tube under laminar flow M Arulprakasajothi, K Elangovan, KHC Reddy, S Suresh Frontiers in Energy 10 (2), 136-142	2016
Pool boiling heat transfer enhancement using vertically aligned carbon nanotube coatings on a copper substrate M Dharmendra, S Suresh, CSS Kumar, Q Yang Applied Thermal Engineering 99, 61-71	2016

Surfaces and Interfaces SC Vettivel, R Jegan, J Vignesh, S Suresh	2016
Experimental Investigation on Emission Characteristics of Variable Compression Ratio CI Engine Fuelled by Combined Biodiesel NS Pillai, PS Kannan, S Suresh Asian Journal of Research in Social Sciences and Humanities 6 (9), 1419-1429	2016
Experimental studies on heat transfer and friction factor characteristics of a turbulent flow for internally grooved tubes S Ponnusamy, R Shanmugam, S Sivan, S Jaganathan Thermal Science 20 (suppl. 4), 1005-1015	2016
Heat transfer characteristics of Al ₂ O ₃ /water nanofluid in laminar flow conditions with circular ring insert D Mala, S Sechassalom, S Sivan Thermal Science 20 (suppl. 4), 1159-1168	2016
Effect of surfactant addition on hydrophilicity of ZnO–Al ₂ O ₃ composite and enhancement of flow boiling heat transfer CSS Kumar, S Suresh, AS Praveen, MCS Kumar, V Gopi Experimental Thermal and Fluid Science 70, 325-334	2016
Graphene Oxide: Controlled Crumpling of Graphene Oxide Films for Tunable Optical Transmittance (Adv. Mater. 21/2015) AV Thomas, BC Andow, S Suresh, O Eksik, J Yin, AH Dyson, N Koratkar Advanced Materials 27 (21), 3222-3222	2015
Flow boiling heat transfer enhancement on copper surface using Fe doped Al ₂ O ₃ –TiO ₂ composite coatings S Kumar, S Suresh, CR Aneesh, S Kumar, AS Praveen, K Raji Applied Surface Science 334, 102-109	2015
Review on nanofluids theoretical thermal conductivity models PM Kumar, J Kumar, R Tamilarasan, S Sendhilnathan, S Suresh Engineering Journal 19 (1), 67-83	2015
Hydrogen reduction of single pellet nickel oxide under microwave irradiation S Suresh, NN Viswanathan Journal of Metallurgy and Materials Science 57 (4), 257-264	2015
Morphological variability of Macrophomina phaseolina (Tassi) Goid, causal agent of dry root rot disease of chickpea (Cicer arietinum L.). N Gowdra, S Muhammad, S Pavithra, SR Suresh International Journal of Plant Protection 8 (1), 69-72	2015
Efficiency of scale in production GD Kumar, M Venkataramanaiah, S Suresh ACADEMICIA: An International Multidisciplinary Research Journal 5 (5), 37-45	2015
THERMAL PERFORMANCE OF AL ₂ O ₃ NANOFLUID WITH CIRCULARRING INSERT IN PLAIN TUBE D Mala, S Sendhilnathan, S Suresh JOURNAL OF THE BALKAN TRIBOLOGICAL ASSOCIATION 21 (4), 1055-1071	2015
Heat transfer enhancement in vertical helical coiled heat exchanger by using nano fluid-TiO ₂ /water AA Ali, B Kumaragurubaran, S Suresh, KL Babu	2015

Int Res J Eng Technol 2 (9), 2480-2484	
Effect of Geometrical Parameters on Flow Mal-Distribution in a Wavy Microchannel M Satheeshkumar, MR Thansekhar, C Anbumeenakshi, S Suresh Applied Mechanics and Materials 813, 674-678	2015
Heat transfer study of water-based nanofluids containing titanium oxide nanoparticles M Arulprakasajothi, K Elangovan, KHC Reddy, S Suresh Materials Today: Proceedings 2 (4-5), 3648-3655	2015
Investigation of heat transfer characteristics of mgmnni/diw-based nanofluids for quenching in industrial applications SR Chitra, S Sendhilnathan, S Suresh Journal of Enhanced Heat Transfer 22 (1)	2015
Experimental study of preparation, characterisation and thermal behaviour of water-based nanofluids containing titanium oxide nanoparticles M Arulprakasajothi, K Elangovan, K Hemachandra Reddy, S Suresh Applied Mechanics and Materials 766, 348-354	2015