

DC MEMBER

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List of Publications (Recent):

1. Microencapsulation of nitrate salt for solar thermal energy storage-synthesis, characterisation and heat transfer study, Solar Energy Materials and Solar Cells, 206 (2020), pp.110308.
2. Liquid Metal Gallium in Metal Inserts for Solar Thermal Energy Storage: A Novel Heat Transfer Enhancement Technique, Solar Energy Materials and Solar Cells, 208 (2020), pp.110365.
3. Experimental investigations of vanadium and nickel distribution while firing petcoke in a circulating fluidised bed test facility, International Journal of Oil, Gas and Coal Technology, 20 (2019), pp.81-96.
4. Optical Properties of Copper Oxides (CuO) and Titanium Oxides (TiO₂) Nanoparticles, Methodology, 6 (2019).
5. An experimental investigation on the effect of gravitational orientation on flow boiling performance in different channel sizes ranges from minichannels to microchannels, Heat and Mass Transfer, 2019, pp.1-30.
6. Erythritol based Nano-PCM for Solar Thermal Energy Storage, International Research Journal of Engineering and Technology (IRJET), 6(2019), pp.1631-6.
7. Photothermal energy conversion enhancement studies using low concentration nanofluids, Journal of Solar Energy Engineering, 149 (2019).
8. Energy storage performance of pentaerythritol blended with indium in exhaust heat recovery application, Thermochimica Acta, 680 (2019), pp.178343.

9. Experimental thermal degradation analysis of pentaerythritol with alumina nano additives for thermal energy storage application, *Journal of Energy Storage*, 22 (2019), pp.8-16.
10. Experimental charging and discharging performance of alumina enhanced pentaerythritol using a shell and tube TES system, *Sustainable Cities and Society*, 51 (2019), pp.101767.
11. Investigating the combined effect of square microgrooves and CNT coating on condensation heat transfer, *Applied Surface Science*, 469 (2019), pp.50-60.
12. Comparative study of heat transfer and friction characteristics of water-based Alumina–copper and Alumina–CNT hybrid nanofluids in laminar flow through pipes, *Journal of Thermal Analysis and Calorimetry*, 136 (2019), pp. 243-253.
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15. Manganese-based layered perovskite solid–solid phase change material: Synthesis, characterization and thermal stability study, *Mechanics of Materials*, 135 (2019), pp. 88-97.
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17. Recent developments in thermo-physical property enhancement and applications of solid solid phase change materials, *Journal of Thermal Analysis and Calorimetry*, 2019, pp. 1-27.
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19. Effects of Al₂O₃, CuO and TiO₂ nanoparticles son thermal, phase transition and crystallization properties of solid-solid phase change material, *Mechanics of Materials*, 128 (2019), pp. 64-88.
20. Experimental investigation of solar reversible power generation in Thermoelectric Generator (TEG) using thermal energy storage, *Energy for Sustainable Development*, 48 (2019), pp. 107-114.

21. Experimental investigation on melting and solidification behaviour of erythritol in a vertical double spiral coil thermal energy storage system, *Sustainable Cities and Society*, 44 (2019), pp. 253-264.
22. Thermal performance of micro-encapsulated PCM with LMA thermal percolation in TES based heat sink application, *Energy Conversion and Management*, 185 (2019), pp. 75-86.
23. Theoretical and experimental evaluation of thermal interface materials and other influencing parameters for thermoelectric generator system, *Renewable Energy*, 135 (2019), pp. 25-43.
24. Heat transfer performance of graphene nano-platelets laden micro-encapsulated PCM with polymer shell for thermal energy storage-based heat sink, *Applied Thermal Engineering*, 156 (2019), pp. 237-249.
25. Evaluation of solar thermal system configurations for thermoelectric generator applications: A critical review, *Solar Energy*, 188 (2019), pp. 111-142.
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31. Modified surfaces using seamless graphene/carbon nanotubes based nanostructures for enhancing pool boiling heat transfer, *Experimental thermal and fluid science*, 96 (2018), pp. 493-506.
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33. Elucidating the mechanisms behind the boiling heat transfer enhancement using nano-structured surface coatings, *Applied Thermal Engineering*, 137 (2018), pp. 868-891.

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41. Liquid metal gallium laden organic phase change material for energy storage: an experimental study, *International Journal of Hydrogen Energy*, 43 (2018), pp. 2469-2483.
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44. Role of inter-nanowire distance in metal nanowires on pool boiling heat transfer characteristics, *Journal of colloid and interface science*, 532 (2018), pp. 218-230.
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