

## Documents

Kasaeian, A., Azarian, R.D., Mahian, O., Kolsi, L., Chamkha, A.J., Wongwises, S., Pop, I.

**Nanofluid flow and heat transfer in porous media: A review of the latest developments**

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**Abstract**

Researchers in heat transfer field always attempt to find new solutions to optimize the performance of energy devices through heat transfer enhancement. Among various methods which are implemented to reinforce the thermal performance of energy systems, one is the dispersion of solid nanoparticles in common working fluids such as water. The suspension is called nanofluid. On the other hand, utilizing porous media in heat exchangers is another technique to augment of thermal efficiency. Porous media by providing high surface area contact will ameliorate heat transfer rate in ducts. In the present work, a comprehensive review is conducted on the simultaneous application of nanofluids and porous media for heat transfer enhancement purposes in thermal systems with different structures, flow regimes, and boundary conditions. © 2016 Elsevier Ltd

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