Preparation methods and challenges of hybrid nanofluids: A review

N.S.M. Sahid 1, M.M. Rahman 1*, K . Kadirgama 1, D. Ramasamy 1 and M.A. Maleque 2

1. Faculty of Mechanical and Automotive Engineering Technology, University Malaysia Pahang, 26600 Pekan, Pahang, Malaysia.
2. Department of Manufacturing and Materials Engineering, Faculty of Engineering, International Islamic University Malaysia, P.O. Box 10, Kuala Lumpur, 50728, Kuala Lumpur, WP Kuala Lumpur, Malaysia

Abstract:
This paper reviews the preparation methods and some challenging issues that need to be addressed during the preparation of hybrid nanofluids. The recent years have seen the rapid development of hybrid nanofluids in different aspects, where the researchers focused mainly on the enhancement of heat transfer. Hybrid nanofluids are potential fluids offer enhanced heat transfer performance and thermo-physical properties than conventional heat transfer fluids as well as single-faced nanofluids. However, hybrid nanofluids preparation deserves similar attention since the final properties of hybrid nanofluids are dependent on the stability of the dispersion. In this paper, the recent progress related to preparation methods of hybrid nanofluids, factors affecting their stability, methods of enhancing thermal properties and applications of hybrid nanofluids.

Keywords: Nanoparticles Hybrid nanofluids; thermal conductivity; density; heat transfer; pressure drop; viscosity.

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