RECENT ADVANCEMENT OF NANOFLUIDS IN HEAT TRANSFER ENHANCEMENT: A REVIEW

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Abstract- Nanofluid is a fluid containing nanometer-sized solid particles, called nanoparticles. A nanofluid can be produced by dispersing a typical size of less than 100 nm of metallic or non-metallic nanoparticles into a base liquid. The presence of nanoparticles in a nanofluid contributes to a better thermal conductivity compared to the original base fluid. Intensive studies have been done by many researchers since its first introduced, due to the many applications such as electronic components, nuclear reactor, building heating and cooling system, water boiling, hybrid-powered engines, engine cooling/vehicle thermal management, etc. This review covers the heat transfer enhancement using nanofluids and their potential applications. The preparation methods, advantages of nanofluids and the applications of nanofluids are highlighted.