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A Review on Stability and Preparation of Nanofluids

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Abstract: The past decade has seen the rapid development of nanofluid science in different aspects, where the researchers focused mainly on the enhancement of heat transfer. However nanofluids preparation also deserves the same attention since the final properties of nanofluids are dependent on the stability of the dispersion. In this paper, we summarize the nanofluid preparation methods reported by different investigators in an attempt to find a suitable method for preparing stable nanofluids. In this context, nanofluids are classified according to material type as metallic and nonmetallic nanoparticles since different nanoparticles need their own stability method. Various types of nanoparticles with different base fluids are investigated. Also, the available data for the zeta potential as a function of pH is discussed.

Keywords: Nanoparticles, Stability, Nanofluid preparation

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