Recent Progress on Lattice Boltzmann Simulation of Nanofluids: A Review

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ABSTRACT

Researches on nanofluids have been quite intensive in the past decade. The performances of nanofluids have been experimentally and theoretically investigated by various researchers across the world. Among the proposed numerical methods, the lattice Boltzmann method has been shown to predict the heat transfer augmentation by nanofluids at acceptable accuracy. In this review, we summarize the recent progress of lattice Boltzmann formulation in predicting nanofluids and try to find some challenging issues that need to be solved for future research.

KEYWORDS: Lattice Boltzmann; Nanofluid; Convective heat transfer; Nusselt number

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