عنوان مقاله:

Thermo-physical properties of nanoparticles/fluid suspension

محل انتشار:

ششمین کنگره بین المللی مهندسی شیمی (سال: 1388)

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خلاصه مقاله:

It has been found that important heat transfer enhancement may be achieved using nanosized particles/fluid suspension which called nanofluids instead of convectional fluids. This is major of importance for electronics and microelectronics where liquids cooling systems are necessary and miniaturizing is needed. In this regard, determination of the nanofluids thermo-physical properties is essential to establishing adequate pumping power as well as the convective heat transfer and mass transfer coefficient, because the Prandtl, Schmidt and Reynolds number are functions of these properties. In this study, different theoretical and experimental correlations for prediction of nanofluids properties reviewed and the limitation of the proposed relations was illustrated.

کلمات کلیدی:

Nanoparticles, Heat Transfer Coefficient, Mass Transfer Coefficient, Nanofluid