

Heat transfer characteristics of nanofluid due to a permeable rotating disk with slip effect and thermophoresis / Asiya Khatun, Mohammad Mahabubur Rahman, Shariful Alam

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Abstrak

ABSTRAK

The main purpose of the current study is to represent numerical simulations for magneto-nanofluid slip flow and heat transfer over a permeable rotating disk in the presence of thermophoresis and Brownian motion. to carry out the experiment, the governing nonlinear partial differential equations are converted into nonlinear ordinary differential equations by using similarity analysis and the solutions are computed through the algebra software MATLAB. The obtained results are consistent with previously available studies to a particular extent. The natures of the involved interesting parameters on the temperature and concentration are drawn graphically. The present study further computes and examines the local Nusselt Number. the emerged results may be useful for environmental, industrial and engineering phenomena.