ABSTRACT

This paper aims to investigate the thermal stability of unsteady incompressible nanofluid enclosed within a porous medium using linear stability analysis. The governing equation of nanofluid is framed based on Buongiorno’s model and Darcy law is incorporated to represent flow through a porous substrate. The resulting Eigen value problem is solved by applying normal mode analysis and method of small oscillation is employed to find closed form solutions. Stability characteristics of flow fields have been discussed numerically