Magnetohydrodynamics (MHD) Jeffrey fluid over a stretching vertical surface in a porous medium

Dhawan, S. K. H., & Bhat, M. A.

Abstract

This paper presents the study of an incompressible Jeffrey fluid having heat transfer of a Jeffrey fluid over a stretching sheet immersed in a porous medium with the presence of an external magnetic field. The governing flow equations are reduced to nonlinear ordinary differential equations with the aid of similarity transformations, which are then solved numerically using an implicit finite difference scheme. The effects of some of the embedded parameters, such as Darcy number, magnetic parameter, axial convection parameter, Prandtl number, and the flow and heat transfer characteristics, are given in terms of tables and graphs.

Author keywords

Boundary layer, Jeffrey fluid, Magnetohydrodynamics, Heat transfer

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References
