

Heat and Mass Transfer Analysis in An Unsteady Natural Convective Magnet Hydrodynamic Flow of a Nano Fluid under the Presence of Thermal Diffusion and Absorption Radiation

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Abstract: *An analysis of unsteady natural convective MHD flow of nanofluid under the presence of thermal diffusion and absorption radiation with the effects of chemical reaction on heat and mass transfer without a porous medium is discussed in the present study. The governing equations were implied and were solved analytically using perturbation technique. The velocity, temperature and concentration fields are obtained. Graphical results were presented for velocity, temperature and concentration profile for various values of parameters.*

Keywords: Nanofluids, Natural convection, Thermal diffusion.

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