ABSTRACT

In this paper the effect of Thermal radiation, inclined magnetic field in the presence of Diffusion thermo on MHD natural convective heat and mass transfer flow of a nanofluid past through a semi infinite flat plate has been investigated. The plate is moved with constant velocity u0, temperature and concentration are assumed to be fluctuating with time harmonically from a constant mean at the plate. The dimensionless governing differential equations for this investigation are solved analytically using perturbation method. The effect of velocity profile, temperature profile, concentration profile for Cu water nanofluids are discussed through graphs. It is observed that the thermal radiation and diffusion thermo enhance the velocity and temperature profile. The fluid velocity is decreased with the increasing value of Magnetic field parameter, the angle of inclinations.