

Abstract

Mohamed Abd El Fatah Mohamed Teamah

m. a. teamah, a. f. elsafty, m. z. elfekyenass z. el-gazzar " effect of magnetic field buoyancy ratio on double diffusive natural convective flow in an inclined rectangular enclosure in the presence of magnetic field heat source" port said engineering resear

double-diffusive convective flow in an inclined rectangular enclosure with the shortest sides being insulated and impermeable is investigated numerically. constant temperature and concentration are imposed along the longest sides of the enclosure. in addition, a uniform magnetic field is applied perpendicular to the y direction. laminar regime is considered under steady state condition. the transport equations for continuity, momentum, energy and species transfer are solved using the finite volume technique. the validity of the numerical method used is ascertained by good agreement was found with recently published results.