

Abstract: Unsteady MHD visco-elastic fluid flow has been studied numerically under the action of transverse magnetic field with diffusion-thermo and thermal diffusion for small magnetic Reynolds number. The governing equations are non-dimensionalized by usual non-dimensional variables. The obtained equations are solved by explicit finite difference technique. The solutions of the dimensionless velocity, temperature and concentration equations are shown graphically. The effects of parameters on the shear stress, Nusselt number and Sherwood number are discussed in graphical form. Finally, a qualitative comparison with previous work is tabulated.