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Chemical Reaction and Soret Effects on MHD Free Convection Flow Past a Vertical Porous Plate with Heat Generation

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Abstract: This paper deals with the chemical reaction and soret effect of heat generation on the MHD free convection heat and mass transfer flow of a viscous incompressible fluid past a continuously moving infinite plate including thermal radiation. Closed form of solution for the velocity, temperature and concentration field are obtained and discussed graphically for various values of the physical parameters present. In addition, expressions for the skin friction and Sherwood number is also derived and finally discussed with the graphs.

Keywords: Free convection, Heat Generation, Magnetic Field, chemical reaction, porous plate, Soret effect, Thermal radiation.

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