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NON-DARCY CONVECTIVE FLOW OF HEAT AND MASS TRANSFER IN A VERTICAL CHANNEL WITH HEAT SOURCE AND DISSIPATION

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Abstract

In this paper we made attempt to study effect of thermo-diffusion and dissipation on non-Darcy convective heat and mass transfer flow of a viscous fluid through a porous medium in a vertical channel in the presence of heat generating sources. The governing equations flow, heat and mass transfer are solved by using regular perturbation method with δ, the porosity parameter as a perturbation parameter. The velocity, temperature, concentration, rate of Heat and Mass transfer on the walls are evaluated numerically for different variations of parameters.
