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RADIATION EFFECT ON NATURAL CONVECTION FLOW PAST AN IMPULSIVELY STARTED INFINITE VERTICAL PLATE THROUGH POROUS MEDIUM IN THE PRESENCE OF MAGNETIC FIELD AND FIRST ORDER CHEMICAL REACTION

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ABSTRACT

In this paper, the effect of thermal radiative past an impulsively started infinite vertical plate through porous medium under the influence of transverse magnetic field has been discussed. The fluid is assumed to be gray, emitting – absorbing but non-scattering medium and the optically thick radiation limit is considered. The dimensionless governing equations are solved using Laplace transformation technique. The velocity and temperature profiles are shown graphically. The variation of skin – friction and Nusselt number are also shown in the table.

KEYWORDS: First Order Chemical Reaction, Heat and Mass Transfer, MHD, Natural Convection, Porous Medium