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MHD CONVECTIVE FLOW PAST A CONTINUOUSLY MOVING POROUS VERTICAL PLATE WITH MASS TRANSFER

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Abstract

The study of two dimensional convective force and mass transfer flow of an incompressible viscous and electrically conducting fluid past a continuously moving porous vertical plate with uniform suction has been presented. A magnetic field of uniform strength is assumed to be applied transversely to the direction of the main flow. The solutions for the velocity, temperature and concentration field are obtained..

The velocity field and skin friction for different values of the parameters involved in the problem are obtained and these are demonstrated in graphs.

It is found that the velocity field increases with the increase of Schmidt Number and Grashof Number. It is also observed that an increase in the strength of magnetic field and Prandtl number causes a reduction in the skin friction at the plate.

Key Words : *MHD, Induced magnetic field, Electrically conducting, Viscous, Incompressible, Skin friction, Nusselt number*

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