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Effect of Viscous Dissipation on 3-D MHD Casson Flow in Presence of Chemical Reaction: A Numerical Study

Authors : Bandari Shanker, Alfunsa Prathiba

Abstract : The influence of viscous dissipation on MHD Casson 3-D fluid flow in two perpendicular directions past a linearly stretching sheet in the presence of a chemical reaction is explored in this work. For exceptional circumstances, self-similar solutions are obtained and compared to the given data. The enhancement in the values Ecert number the temperature boundary layer increases. Further, the current findings are observed to be in great accord with the existing data. In both directions, non - dimensional velocities and stress distribution are achieved. The relevant data are graphed and explained quantitatively in relation to changes in the Casson fluid parameter as well as other fluid flow parameters.

Keywords : viscous dissipation, 3-D Casson flow, chemical reaction, Ecert number
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