

عنوان مقاله:

Effects of Non-Linear Thermal Radiation and Chemical Reaction on Time Dependent Flow of Williamson Nanofluid
With Combine Electrical MHD and Activation Energy

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خلاصه مقاله:

The current article will present the impact of the heat and mass transfer of combine electrical MHD flow of time dependent Williamson fluid with nanoparticles by the incorporating the influences of non-linear thermal radiation and the chemical reaction through wedge shape geometry. The fluid flows past a porous stretching wedge with convected Nield boundary conditions. The several (geometrical and physical) conditions have been included to provide more practicable results. The effects of activation energy further discussed. Due to relevant similarity transformation, set of partial differential equations which is non-linear and complicated is converted into simplest system of ordinary differential equations. To obtain the desired solution, famous numerical technique (shooting) used with the help of bvp4c MATLAB coding. The variation physical quantities namely velocity, temperature, concentration of nanoparticles, local Sherwood number, coefficient of skin friction and local Nusselt number have been observed under the influence of emerging parameters. The elaborated discussion presented with graphical and tabular illustrations.

کلمات کلیدی:

Williamson Nano fluid, Non-linear thermal radiation, Wedge Geometry, Numerical Technique

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