

Analytical Study of Radiative Casson Nanoliquid Flow with Heat Absorption

K. Loganathan, K. Tamilvanan, Amelec Vilorio, Noel Varela, and Omar Bonerge Pineda Lezama

Abstract

The divergence of thermally radiative MHD flow of a Casson nanofluid over a stretching paper alongside heat absorption. The governing non linear equations are remodeled into a nonlinear ODE's. The HAM is adopted to find the series solution. The changes of pertinent parameters are analyzed with diagrams and tables. The fluid velocity is controlled by suction and it develops with injection. The local Nusselt number rapidly suppresses with increasing the magnetic field parameter in heat generation case.

Keywords: Casson nanoliquid · Heat absorption · Magnetic field · Thermal radiation