

Entropy Generation Analysis of Buoyancy Effect on Hydromagnetic Poiseuille Flow with Internal Heat Generation

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Abstract: This paper presents the entropy generation analysis of buoyancy effect with internal heat generation on a viscous incompressible non-Newtonian hydromagnetic Poiseuille flow through vertical isothermal walls. The solution of the non-linear boundary value problems obtained from the governing equations is constructed via the rapidly convergent semi-analytical technique of Adomian decomposition. Graphs and table are presented to analyse the effects of some parameters on fluid motion, temperature, entropy generation and irreversibility ratio.

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