A MATHEMATICAL MODEL FOR NEWTONIAN AND NON -NEWTONIAN FLOW THROUGH TAPERED TUBES IN PRESENCE OF MAGNETIC FIELD

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Abstract

The objective of this paper to study the effect of magnetic field on a mathematical for Newtonian and non-Newtonian flow throw through tapered tubes. In this model we take a steady and laminar flow of Newtonian and non Newtonian fluid, Navire stock's equations are used in the formulation of the model. In this work, we take R_e numbers up to 10 for Newtonian fluid and 5.7 for non Newtonian fluid and taper angle α is 0.5, 0.75, 1.0, and 1.25. Pressure gradient. Here Newtonian and non Newtonian fluids were examined in the presence of magnetic field. The experimental data's were compared with theoretical predictions.

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