

## Documents

Butt, A.S., Ali, A.

**Analysis of entropy generation effects in unsteady squeezing flow in a rotating channel with lower stretching permeable wall**

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**Abstract**

The present article aims to examine the entropy effects due to the flow of a viscous fluid in a rotating channel having a lower porous wall which is stretching in its own plane and upper wall squeezing downwards. The considered problem is modeled by using Navier-Stokes Equations. The governing partial differential equations are changed into non-linear ordinary differential equations with the aid of suitable similarity variables. The Optimal Homotopy Analysis Method (OHAM) is employed to obtain the analytical solution of the converted equations. The equations are again solved numerically via fourth-fifth order Runge-Kutta-Fehlberg method and the resulted are compared. The effects of various physical parameters on flow and heat transfer characteristics as well as on entropy production are displayed through tables and graphs and the results are discussed in detail. © 2014 Taiwan Institute of Chemical Engineers.

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