

## Documents

Butt, A.S., Ali, A.

**Entropy analysis of magnetohydrodynamic flow and heat transfer over a convectively heated radially stretching surface**  
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### Abstract

Steady boundary layer flow and heat transfer of an electrically conducting viscous fluid over a radially stretching surface is considered where the surface is convectively heated. Emphasis has been laid to study the entropy effects during the flow and heat transfer process. The non-linear partial differential equations governing the momentum and energy equations are converted into a set of non-linear ordinary differential equations by using suitable similarity transformations. The transformed system is then solved by using analytical and numerical techniques and the obtained results are compared with each other. The effects of various thermophysical parameters on velocity, temperature, local skin friction, Nusselt number, local entropy generation number and Bejan number are discussed in detail with the help of graphs and tables. © 2014 Taiwan Institute of Chemical Engineers.

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