Accepted Manuscript

Cattaneo-Christov Intensity of Magnetized Upper-Convected Maxwell Nanofluid Flow Over an Inclined Stretching Sheet: A Generalised Fourier and Fick's Perspective

Nilankush Acharya, Kalidas Das, Prabir Kumar Kundu

 PII:
 S0020-7403(17)30782-8

 DOI:
 10.1016/j.ijmecsci.2017.05.043

 Reference:
 MS 3722

To appear in: International Journal of Mechanical Sciences

Received date:27 March 2017Revised date:16 May 2017Accepted date:29 May 2017

Please cite this article as: Nilankush Acharya, Kalidas Das, Prabir Kumar Kundu, Cattaneo-Christov Intensity of Magnetized Upper-Convected Maxwell Nanofluid Flow Over an Inclined Stretching Sheet: A Generalised Fourier and Fick's Perspective, *International Journal of Mechanical Sciences* (2017), doi: 10.1016/j.ijmecsci.2017.05.043

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Highlights

- Impact of Cattaneo-Christov effect on upper convected Maxwell nanofluid flow over inclined stretching sheet has been studied.
- More generalised version of so called Fourier and Fick law have been explored under the illumination of magnetic field.
- Leading equations have been cracked via RK-4 method in conjunction of shooting procedure.
- Thermal relaxation parameter aids the fluid's temperature to reduce significantly.
- Classical Fick's law contributes comparatively maximum concentration distribution only for the nanoparticle concentration relaxation parameter.

Chillip MAN

Download English Version:

https://daneshyari.com/en/article/5015948

Download Persian Version:

https://daneshyari.com/article/5015948

Daneshyari.com