

Accepted Manuscript

Penetrative convection in couple-stress fluid via internal heat source/sink with the boundary effects

Reena Nandal , Amit Mahajan

PII: S0377-0257(17)30324-5
DOI: [10.1016/j.jnnfm.2018.07.004](https://doi.org/10.1016/j.jnnfm.2018.07.004)
Reference: JNNFM 4029



To appear in: *Journal of Non-Newtonian Fluid Mechanics*

Received date: 11 July 2017
Revised date: 10 July 2018
Accepted date: 14 July 2018

Please cite this article as: Reena Nandal , Amit Mahajan , Penetrative convection in couple-stress fluid via internal heat source/sink with the boundary effects, *Journal of Non-Newtonian Fluid Mechanics* (2018), doi: [10.1016/j.jnnfm.2018.07.004](https://doi.org/10.1016/j.jnnfm.2018.07.004)

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

- Internal heating and boundary effects are observed in a couple-stress fluid.
- Chebyshev pseudospectral-QZ method is used for linear and nonlinear analysis.
- Subcritical instability exists in the presence of internal heat source.
- Heat extraction has stabilizing effect while heat input destabilizes the system.

ACCEPTED MANUSCRIPT

Download English Version:

<https://daneshyari.com/en/article/7061044>

Download Persian Version:

<https://daneshyari.com/article/7061044>

[Daneshyari.com](https://daneshyari.com)