

## Documents

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**Effects of discrete heat source location on heat transfer and entropy generation of nanofluid in an open inclined L-shaped cavity**

(2019) *International Journal of Numerical Methods for Heat and Fluid Flow*, 29 (4), pp. 1363-1377. Cited 3 times.

**Abstract**

**Purpose:** This paper aims to concentrate on the impacts of a discrete heat source location on heat transfer and entropy generation for a Ag-water nanofluid in an open inclined L-shaped cavity. **Design/methodology/approach:** The governing partial differential equations for this study are computed by the finite volume method.

**Findings:** The results show that increasing the inclination angle leads to a rise in heat transfer. It is clear with the increase in the nanoparticles volume fraction that the thermal performance reduces, and it increases when the inclination angle increases. **Originality/value:** Because of the continuous literature survey, the authors have not found a study that concentrates on the entropy generation in a wide variety of irregular ducts. Thus, in this paper, they present the analysis of entropy generation in an L-shaped duct experiencing a mixed convective flow with a nanofluid. The authors deal with this geometry because it is very useful in cooling systems of nuclear and chemical reactors and electronic components. © 2018, Emerald Publishing Limited.

2-s2.0-85058338138

**Document Type:** Article

**Publication Stage:** Final

**Source:** Scopus