

عنوان مقاله:

Natural convection heat transfer inside a cavity with novel fin shapes

محل انتشار:

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خلاصه مقاله:

In this study, the effect of adding different fins on the natural convection heat transfer inside a square cavity and comparing them with unfinned one is investigated. Moreover, three working fluid including air, water and ethylene glycol-water mixture 60:40 (EG-Water 60:40) are applied and their heat transfer characteristics are compared to each other. The results show that in all cases, by increasing the Grashof number the Nusselt number increases, but the maximum increase occurs in the case of EG-water 60:40. Also, the best heat transfer occurs in the case of tree-shaped fin.

کلمات کلیدی:

Ethylene glycol-water mixture, Fin, Heat transfer, Natural convection, Nusselt

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