

## عنوان مقاله:

Numerical investigation of nanofluids efficiency in a novel microchannel heatsink

## محل انتشار:

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## خلاصه مقاله:

The efficiency of nanofluids as coolants is numerically investigated in a novel microchannel heatsink (MCHS). In the present study, the CuO/H<sub>2</sub>O, Al<sub>2</sub>O<sub>3</sub>/H<sub>2</sub>O and TiO<sub>2</sub>/H<sub>2</sub>O were used as coolants are examined. The three-dimensional steady, laminar flow and heat transfer governing equations are solved using finite volume method. The micro channel heatsink performance is evaluated in terms of temperature profile, thermalresistance and pressure drop. The results show that the cooling performance of MCHS with nanofluids is enhanced compared with pure water. Microchannel heatsinks using nanofluid are expected to be good candidates as the next generation cooling devices for removing ultra high heat flux

## کلمات کلیدی:

cooling, heat transfer, MCHS, nanofluids

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/151502>

