

HEAT TRANSFER AND MASS TRANSFER IN MICRO-CHANNELS HEAT EXCHANGERS

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ABSTRACT

The need for developing efficient and effective cooling techniques for microchips has generated extensive research interest in micro-channels heat transfer.

As the market induces electronic chips to undergo size reduction while increasing functionality, the use of convective heat transfer in micro-channels is believed to be one of the most efficient ways to provide a better understanding of liquid and gaseous flows and heat transfer at micro-scale, which is very important for micro-devices development and design.

Heat transfer in micro-channel has gained more interest in the last decade due to developments in the aerospace, biomedical and electronic industries.

This material shows the advantages and disadvantages of heat exchangers with micro-channels and their performances.

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