

عنوان مقاله:

Investigation the effect of micro-channel hydraulic diameter and fluid velocity on nanofluids of micro polar flow with AGM

محل انتشار:

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نویسندگان:

S Talesh Amiri - *Department of Mechanical Engineering, Noshirvani-Babol University, Babol, Iran*

M, M Ahmadi Ashrafi - *Department of Mechanical Engineering, Noshirvani-Babol University, Babol, Iran*

Z Asadi - *Department of Mechanical Engineering, Islamic Azad University, Sari, Iran*

D Domairry Ganji - *Department of Mechanical Engineering, Noshirvani-Babol University, Babol, Iran*

خلاصه مقاله:

By increasing human knowledge and production of advanced precision measuring instruments, along with a variety of microprocessors, including the modern microscopy of fluids, scientist is looking for a change in structure of materials to improve their efficiency, so that with progress in measuring instruments by changing the properties of particles in the Nano scale, the possibility of changing the properties of the substance without altering macroscopic appearance is provided. However, the behavioral parameters of nanoparticles are different from the base fluid, recognizing these differences is so important. however, it is so difficult and costly. It is also sometimes necessary to use these nanofluids in micro-sized channels. In this paper, an analytical review of a set of parameters describing the behavior of a nanofluid has been investigated. The effect of changing the velocity of two copper and silver Nano-liquids and the variation in distance of the channel plates through which the nanofluid passes have studied and Finally, the result obtained from the study of behavior of nanofluid was: greatest effect of increasing velocity of nanofluid or increasing hydraulic diameter of micro channels is on the temperature gradient parameter and its slope increases by increasing .in velocity

کلمات کلیدی:

Akbari-Ganji's Method (AGM); Nanofluid; Micro-channel hydraulic diameter; Micropolar

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