Fig 1: ~~the i~~Influence of fluid speed over displacement heat transfer coefficient~~.~~

The Nuselt number of ~~nanofluids~~Nano fluids containing ~~2~~ two percent of copper particles increases about 39% in comparison with pure water. It increases for fluids ~~that their~~with base fluid~~s~~ ~~is~~ of water via growing of ~~the~~ particles number and ~~increasing~~ increase ~~of~~ in Reynolds number. ~~Viscosity~~ Moreover, viscosity increment of ~~nanofluids~~Nano fluids might have negative impact on displacement heat transfer.

~~For instance,~~ Pak and Choo in 1998 ~~considered~~ stated that displacement heat transfer coefficient of ~~the~~ fluids~~, which their~~ with base fluid ~~is~~ of water ~~and~~ containing 3% ~~of a~~Aluminum and ~~titanium~~ Titanium O~~o~~xides, decreases 12% in comparison with pure water. Van and Ding performed an examination in 2004 through which ~~the~~ laminar heat transfer was ~~done~~ carried out for ~~alumina~~ Alumina ~~nanofluids~~Nano fluids at the entrance region of a channel. ~~Nanofluid~~Nano fluid viscosity was estimated using Einstein's formula. For ~~nanofluids~~Nano fluids containing 1.6% nanoparticles, heat transfer coefficient enhanced 41%.

Mayga, Palm, Gouin et al. studied laminar compulsory displacement heat transfer using computational code by uniform heating of the tube. They used ~~alumina~~ Alumina suspended in water particles and ~~also in ethylene~~ Ethylene ~~glycol~~Glycol. They understood that by increasing ~~of~~ nanoparticles volumetric percent and Reynolds number, the wall shear stress ~~and also~~and heat transfer coefficient increases. They also ~~find~~ found that a better heat transfer penetrated in ~~ethylene~~ Ethylene ~~glycol~~ Glycol rather than water. Ethylene ~~glycol~~ Glycol has inverted effects on the wall shear stress. In their study, φ stands for nanoparticles volumetric dense, R for radial spatial situation inside the tube, R_0 for tube radius, Z for the length across the tube, T for ~~nanofluid~~Nano fluid temperature, hr for the ratio of ~~nanofluid~~Nano fluid heat transfer coefficient to base fluid heat transfer coefficient, and τr for nanofluid wall shear stress rather base fluid wall shear stress. All of the presented results are for water/alumina ~~mt.~~m~~–~~ixture with Reynolds value of 500, and thermal flow of 10000w/m^2; ~~but~~ however similar behaviors were obtained for ~~ethylene~~ Ethylene ~~glycol~~ Glycol mixture ~~as well~~. Fig. 2 shows the impact of particle volumetric ratio over ~~the~~ temperature profile across the radius.

[SMM]Comment ۲۰: آیا ۳ نویسنده ۳ مقاله هستند، یا ۳ نویسنده یک مقاله؟

[SMM]Comment ۲۱: Density?

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[SMM]Comment ۲۲: منظور از این عبارت چیست؟

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Haris, Isfahani and Etemad complemented the research of Mayga, Palm, Gouine et al., which ~~which,~~ was free of the empirical results and put these results against numerical ones. They analyzed water/alumina ~~nanofluid~~Nano fluid compulsory displacement inside a tube with constant wall temperature. They also found that heat transfer coefficient increased by increment of the nanoparticles dense. They draw their conclusion in the form of a function of Packlet number:

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Fig.4 shows ~~nanofluid~~Nano fluid heat transfer coefficient against Packlet number and compares it with the analytical results. These results were derived from the Seider-Tate relation and only show the increment of thermal conductivity in the state of heat transfer increment. As ~~it~~ can be seen on Fig. 4, all of the heat transfer coefficients, obtained from laboratorial ~~nanofluids~~Nano fluid results are greater than theoretical results. Moreover, the empirical ~~results~~ result values are far more than water heat transfer coefficient without nanoparticles ~~water heat transfer coefficient~~.

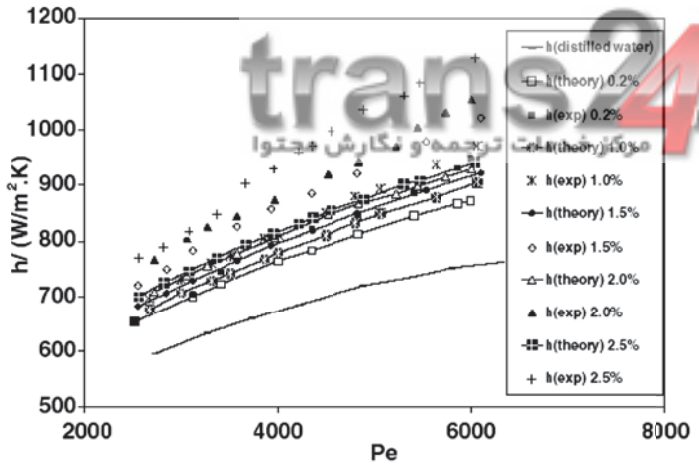

Fig 4: ~~nanofluid~~Nano fluid heat transfer coefficient against Peklet number [6~~]~~

Since Seider-Tate relation ~~just~~ only shows thermal coefficient increment having less heat transfer coefficient than empirical results. It is obvious from Fig. 4 that there are more mechanisms for producing more heat transfer (such as nanoparticles grouping, ~~nano~~Nano-displacement and ~~the~~ other dynamic~~al~~ states). As can be seen, heat transfer coefficient increases considerably ~~that is~~ 63% more than base fluid heat transfer coefficient. ~~The h~~Heat transfer ratio obviously grows with nanoparticles volumetric component increment. Other

[SMM] Comment ۲۷: تقدیر کردند؟

[SMM] Comment ۲۸: بدون نتایج تجربی بود؟

[SMM] Comment ۲۹: Density؟ چگالی، ضخامت؟

[SMM] Comment ۳۰: Peklet یا Packlet؟ در سایر بخش های مقاله نیز چک کنید.

[SMM] Comment ۳۱: جمله ناتمام. گفته اید از آنجاکه ...، ولی جمله را ادامه نداده اید.