عنوان مقاله:

comparing thermal enhancement of Ag-water and SiO2-WATER nanofluids over an isothermal stretching sheet with suction or injection

محل انتشار:

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نویسندگان:

aminreza noghrehabadi - *department of mechanical enginnering shahid chamran university of ahvaz ahvaz iran*

mohammad ghalambaz - *department of mechanical enginnering shahid chamran university of ahvaz ahvaz iran*

mehdi ghalambaz - *engineering section of iman madar naslaha co IMEN ahvaz,iran*

afshin ghanbarzadeh - *department of mechanical enginnering shahid chamran university of ahvaz ahvaz iran*

خلاصه مقاله:

in the present paper the flow and heat transfer of two types of nanofluids namely silver-water and silicon dioxide - water were theoretically analyzed over an isothermal continues stretching sheet to this purpose the governing partial differential equations were converted to a set of nonlinear differential equations using similarity transforms and were then analytically solved it was found thad the magnitude of velocity profiles in the case of Sio2 -water nanofluid was higher than that of AG-water nanofluid the results showed that the increase of nanoparticle volume fraction increased the non-dimensional temperature and thickness of thermal boundary layed in both cases of silver and silicon dioxide increase of nanoparticle volume fraction increased the reduced nusselt number and shear stress it was also demonstrated that the increase of the reduced nusselt number was higher for silicon dioxide nanoparticles than silver nanoparticles however the thermal conductivity of silver was much higher than that of silicon dioxide

کلمات کلیدی:

nanofluids,stretching sheet,thermal enhancement,wall mass transfer,analytical solution