Scopus

Documents

Rajesh, V., Chamkha, A.J., Mallesh, M.P.

Transient MHD free convection flow and heat transfer of nanofluid past an impulsively started semi-infinite vertical plate
(2016) *Journal of Applied Fluid Mechanics*, 9 (5), pp. 2457-2467. Cited 3 times.

Abstract
In this paper, the problem of nanofluid flow and heat transfer due to the impulsive motion of a semi-infinite vertical plate in its own plane in the presence of magnetic field is analyzed by the implicit finite-difference numerical method. A range of nanofluids containing nanoparticles of aluminium oxide, copper, titanium oxide and silver with nanoparticle volume fraction range less than or equal to 0.04 are considered. The Tiwari-Das nanofluid model is employed. The velocity and temperature profiles as well as the skin friction coefficient and Nusselt number are examined for different parameters such as nanoparticle volume fraction, nanofluid type, magnetic parameter and thermal Grashof number. The present simulations are relevant to magnetic nanomaterials thermal flow processing in the chemical and metallurgical industries.

2-s2.0-84988697463
Document Type: Article
Publication Stage: Final
Source: Scopus