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A STUDY OF MODIFIED CHEMICAL REACTION IN THE MHD WILLIAMSON NANOFLUID FLOW OVER A THIN NEEDLE

ARINDAM DAS

Research Scholar, Department of Mathematics,
Dr. A.P.J. Abdul Kalam University, Indore, M.P.

ABSTRACT

Axisymmetric limit layer stream and intensity move process has more significance due to its modern and mechanical cycles. One sort of axisymmetric stream is meager needles. A criticizing object with illustrative unrest is meager needle calculation. The stream is Axisymmetric for this situation and the limit layers are nearer to the measurement of the slendering chamber. Slendering needle with sporadic thickness acquired a lot of sensible significance now a days as it shows a moving change in the field of biomimetics including blood stream issues, disease treatment, metal turning, optimal design, little estimating gear fabricating and so forth. Lee introduced a condition administering the movement of an incompressible liquid streaming pivotally over a slender paraboloid of unrest. He talked about the asymptotic ways of behaving and a surmised arrangement, and registered the mathematical arrangements. He reasoned that for logically dainty needles, the relocation thickness and drag per unit length reduced gradually, yet ultimately become zero as the needle evaporated. They acquired temperature profile and nature of intensity move under the minor departure from nuclear energy regulation in wall temperature and surface intensity transition. They likewise analyzed the impact of needle size and Prandtl number on the warm profile of the stream. Ishak et al. [70] research the limit layer stream on a moving isothermal slight needle lined up with a moving stream. They tackled overseeing conditions mathematically by a limited contrast strategy. Double arrangements were found to exist when the needle and the free stream move in the contrary bearings. Ahmed et al. changed limit layer conditions of consistent laminar blended convection limit layer stream of an incompressible gooey liquid along vertical dainty needles for both helping and contradicting stream and addressed mathematically utilizing a certain limited distinction conspire known as the Keller-box strategy. They had been found that the stream and intensity move qualities were fundamentally impacted by different boundaries like the blended convection boundary, the boundary an addressing the needle size, and Prandtl number.