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**INSPECTING THE NON-DARCY FLOW OF VARIOUS SHAPED  
GRAPHENE OXIDE/ WATER NANOFUID OVER POROUS EXPANDING  
DISK**

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**ABSTRACT**

MHD boundary layer flow of non-Darcy nanofluid flow with various shapes like platelet, cylinder bricks and blade like shapes of Graphene Oxide (GO) with water as base fluid is taken into consideration. The nanofluid is flowing over an expanding disk which is permeable in nature. So, suction and injection is also happening. An externally magnetic force field is applied in the flow system. Considering all those conditions we construct our flow model and with suitable transformations we transform the model into a dimensionless suit of ODEs with appropriate boundary conditions. Then with the help of a suitable numerical procedure, we produce the outcomes of the model and staged it through proper graphs and charts. Here we witnessed that nano liquids with blade shaped nanoparticles have the best capacity to heat transfer. Also, platelet shaped nanoparticles show highest velocity and temperature in the study.