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**A STUDY OF SCRUTINIZING THE INFLUENCE OF MULTIPLE SLIP  
EFFECTS ON THE MHD EYRING-POWELL NANOFUID FLOW  
FLOWING OVER THIN NEEDLE**

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**ABSTRACT**

Nanofluid is very much in demand in today's highly demanding human civilization due to its enhanced delivery capacity of thermal energy and mass. It turned out to be an important breakthrough when Choi first coined the term 'Nanofluid' and dedicated his effort to put light on its efficiency to the world. From then group of researchers started devoting their labor towards enhancing the knowledge domain of nanofluid. Fluids had been classified in two different types depending upon its nature of viscosity. One is Newtonian fluid which caters the well-established Newton's law of viscosity like air, water et. and the rest is non-Newtonian fluid. Here in this chapter our focus of study is non-Newtonian fluid. There are also several classifications of non-Newtonian fluid like Casson fluid, Williamson fluid, Maxwell fluid etc. we intended to explore some features of Eyring – Powell (EP) fluid. Powell and Eyring [46] first came up with the theory of relaxation related to fluid viscosity. Eyring – Powell flow model construction is based on the idea that a fluid includes one bond that obey power law and the other bond follows linear rule of viscosity.