Flow and heat transfer over an unsteady stretching sheet in a micropolar fluid.

ABSTRACT

The unsteady laminar flow of an incompressible micropolar fluid over a stretching sheet is investigated. The unsteadiness in the flow and temperature fields is caused by the time-dependence of the stretching velocity and the surface temperature. Effects of the unsteadiness parameter, material parameter and Prandtl number on the flow and heat transfer characteristics are thoroughly examined.

Keyword: Unsteady flow; Heat transfer; Stretching sheet; Micropolar fluid; Fluid mechanics.