

## **Thermal and solutal marangoni mixed convection boundary layer flow**

### **ABSTRACT**

An analysis is performed for mixed convection thermal and solute concentration Marangoni boundary layer that can be formed along the surface, which separates two immiscible fluids in surface tension flows. Similarity equations for the case in which an external pressure gradient is imposed are derived. The dimensionless governing equations of the flow field are solved numerically using the shooting method. The effect of flow parameters on the velocity, temperature and concentration are computed and presented in tables and figures.

**Keyword:** Marangoni flow; Thermosolutal; Mixed convection; Boundary layer