

## Article Abstract

Title:	Mixed convection of micropolar fluid in a vertical double-passage channel
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Abstract:	The effect of the presence of a thin perfectly conductive baffle on the fully developed laminar mixed convection in a vertical channel containing micropolar fluid is analyzed. The channel has different constant wall temperatures. Analytical expressions for velocity and microrotation velocity are obtained. The solutions are evaluated numerically and shown graphically for the ratio of Grashof number to Reynolds number, material parameter and the baffle position on the velocity and microrotation velocity. It is found that the ratio of Grashof number to Reynolds number promotes the velocity whereas it suppresses the microrotation velocity and the material parameter is invariant on velocity but it promotes the microrotation velocity. Flow reversal can also be found in the double-passage channel with suitable choice of the ratio of Grashof number to Reynolds number.
Keywords:	Mixed convection; micropolar; double-passage.