

## **Analysis of Slip Flow Heat Transfer between Asymmetrically Heated Parallel Plates**

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**Abstract :** In the present study, analysis of heat transfer is carried out in the slip flow region for the fluid flowing between two parallel plates by employing the asymmetric heat fluxes at surface of the plates. The flow is assumed to be hydrodynamically and thermally fully developed for the analysis. The second order velocity slip and viscous dissipation effects are considered for the analysis. Closed form expressions are obtained for the Nusselt number as a function of Knudsen number and modified Brinkman number. The limiting condition of the present prediction for  $Kn = 0$ ,  $Kn_2 = 0$ , and  $Br_{q1} = 0$  is considered and found to agree well with other analytical results.

**Keywords :** Knudsen number, modified Brinkman number, slip flow, velocity slip

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