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DOES THE KNUDSEN LAYER EXIST OVER A CONCAVE SURFACE?

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SUMMARY: Although many microfluidic devices contain curved surfaces, relatively little research has been conducted on nonplanar gas-phase microflows. In this study, the existence of the Knudsen layer over a concave surface has been investigated using a generic nonplanar second-order velocity-slip boundary condition and the direct simulation Monte Carlo (DSMC) method.