

An attempt to numerically predict flow rate of experimental configuration of orifices in transition between molecular and viscous flow regime is described in detail. Discretization of Boltzmann kinetic equation known as lattice-Boltzmann method is derived and applied unfortunately with very little connection to the original experimental problem due to nearly supersonic nature of the experimental setup. Current quite unsatisfactory state of the art of compressible lattice-Boltzmann method is also presented.