

ABSTRACT

In this paper, Direct Simulation Monte Carlo (DSMC) method is used to conduct numerical experiments with the Variable Hard Sphere (VHS) molecular model [1] for the low density hypersonic flow. The general flowfield information, Mach number, pressure, density and temperature were obtained for rectangular, round and wedge shaped blunt bodies. The change of flow properties through shock and the effects of rarefaction under different knudsen number can be clearly analyzed by this method.