

Shear viscosity of hadron resonance gas and K-matrix formalism

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In this work, we will present shear viscosity results which include all possible resonances which are produced in hadronic sector. Shear viscosity will be decreased as the number of resonances are increased. In the other side, entropy density is increased as the temperature move closer to the transition temperature. Shear viscosity is calculated by so called Chapman-Enskog approximation and cross-sections used in this calculation are taken from experiments, UrQMD model and K-Matrix formalism. One interesting results is we are able to approach the $1/4\pi$ limit for the ratio of shear viscosity to entropy density as we increases the number of resonances in the calculation.

Keywords

Transport Coefficients, Shear Viscosity, Hadron Resonances Gas, Equation of State

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