HIGHER ORDER CONTRIBUTION TO TRANSPORT COFFICIENTS IN THERMAL PLASMA

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Transpot properties of LTE thermal plasma are studied by showing a set of Boltzmann equations in the framework of Chapman – Enskog method.Convergence of higher order contributions in plasma is slow as compared to that in gases. A detailed investigation of the variation of these contributions with temperature and pressure have been carried out.It has been observed that increse of the pressure shifts the ionization equilibrium towards the higher temperature,thereby exhibiting the strong pressure dependance.Some properties such as electron thermal conductivity,thermal diffusion and thermal diffusion ratio show peculiar behaviour at high pressures.

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