

Determination of gas pressure using Rayleigh scattering of light on clusters

© Ikhtier H. Umirzakov

Laboratory of Modeling. Kutateladze Institute of Thermophysics of Siberian Branch of Russian Academy of Sciences. Prospect Lavrenteva, 1. Novosibirsk, 630090. Russia.

Phone: +7 (383) 354-20-17. E-mail: tepliza@academ.org

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Abstract

It is shown that the gas pressure and the fraction of condensate (clusters) in gas can be determined using Rayleigh scattering of light on clusters. Formula relating gas pressure with the mean value of sixth degree of the radius of the cluster (determined using size distribution function of clusters) which is proportional to the intense of Rayleigh scattering of the light by clusters in gas is obtained. Formulae are obtained to determine fraction of condensate using data on Rayleigh scattering of the light on clusters in gas.