

INVESTIGATIONS OF THE STEEPNESS
OF A REPULSIVE POTENTIAL
IN ACCORDANCE WITH THE EQUATION
OF STATE AND LIGHT-SCATTERING SPECTRA

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S u m m a r y

The functional form of a repulsive potential is discussed on the basis of the results obtained by two approaches: the processing of statistical valid equations of state and the high-frequency asymptotics of depolarized light scattering. It is shown that the steepness parameter varies from 10 to 15 for a number of inert gases and up to 24 – 28 in the liquid phase. The results yielded with the help of both the equation of state and molecular light scattering spectra well correlate.