ON THE CONNECTION OF ELASTIC PROPERTIES FOR FULLERENE SYSTEMS WITH PARAMETERS OF MODEL INTERMOLECULAR POTENTIALS

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S u m m a r y

The analysis of experimental data on fullerene C_{60} isothermal compression in a high-pressure region is carried out using the statistically grounded equation of state. It is shown that one of the modifications of the Tait's equation of state reveals fairly accurate results upon extrapolation in the range of thermodynamic variables where isothermal compression is small. Isotherms and the parameter that defines the steepness of the potential function within the 'soft" sphere potential model are calculated.