

VIRIAL COEFFICIENTS
OF MODIFIED LENNARD-JONES POTENTIAL

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S u m m a r y

A modified Lennard-Jones potential with a finite interaction radius, which maintains the realistic behavior of its parent and greatly simplifies the numerical simulation of high-density thermodynamic systems, has been considered. The virial coefficients of this potential have been calculated up to the fifth order, inclusive, in a wide range of temperatures. The modified potential can be applied not only in numerical experiments but also in theoretical studies. It is proposed as a reference model to test the adequacy of various theoretical and experimental approaches.