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The Van-der-Waals equation of state with temperature dependent parameters to describe the lines of liquid-gas, solid-gas and liquid-solid phase

© Ikhtier H. Umirzakov
The Laboratory of Modeling. Kutateladze Institute of Thermophysics of the SB RAS. Lavrenteva Prospect, 1. Novosibirsk, 630090. Russia. Phone: +7 (383) 354-20-17. E-mail: tepliza@academ.org

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Abstract

The Van-der-Waals equation of state with temperature dependent parameters is considered. It is shown that the line of phase equilibrium can be described using the Van-der-Waals equation of states with temperature dependent parameters. The parameters are defined via temperature dependencies of the phases which are in thermodynamic state of phase equilibrium.