

The Collins Model and the Eutectic-Type and the Peritectic-Type Phase Diagrams

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(Received: 2002-11-25; Revised:)

Abstract: From the Gibbs free energy and the equations of two-phase equilibrium curves of the two-dimensional binary system which has the Lennard-Jones potential, using the Collins model, the eutectic-type phase diagram and the peritectic-type phase diagram of the binary system are obtained, whose results are quite similar to the behavior of the three-dimensional (3D) substances.

PACS: 64.70.Dv, 81.30.Bx

Key words: Lennard-Jones potential, collins model, binary, eutectic-type phase diagram, peritectic-type phase diagram

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