

**Spatial Distribution of Gaussian Fluctuations of the Molecular Field
and Magnetization in the Pyramid-like Ising Nanoscopic System
Interacting with the Substrate**

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We study thermodynamic properties of an Ising model of a ferromagnetic nanoscopic pyramid deposited onto a ferromagnetic bulk substrate. The influence of the interaction between the pyramid and the substrate is calculated in terms of the reduced-state (density) operator used for description of thermodynamic properties of nanoscopic systems. The spatial distribution of the magnetization in the nanoscopic pyramid is obtained in the Gaussian fluctuations approximation.

9.7 cm

← 13.4 cm →

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