

Stability of catalitic TM-nanoclusters $\text{TM}_{147-561}:\text{Ni,Pd}$ (2D-spacers)

© Valery A. Polukhin,* Elmira D. Kurbanova,⁺ and Lyudmila K. Rigmant

Institute of Metallurgy of Ural Division of RAS. Amundsen St., 101. Ekaterinburg, 620012. Russia.
Phone: +7 (343) 232-91-14. E-mail: kurbellya@mail.ru

*Supervising author; ⁺Corresponding author

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Abstract

In this paper, using physically reasonable potentials, we conducted computer molecular dynamics simulation of heating the face-centered cubic lattice (FCC) of nanoclusters $\text{TM}_{147-561}:\text{Ni,Pd}$ and detected specific thermal dimensional effects of structural stability loss initiated by isomeric transformation of FCC-cube octahedrons into icosahedrons.

Content

1. Introduction
2. Computational simulation and evaluation of the interatomic interaction in nanoclusters.
3. Analysis of the results of nanoclusters thermal evolution simulation by the molecular dynamics method.
4. Structural transformations.