

The Impurity States in Bismuth

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Abstract

The influence of a lattice deformation and the degree of valency states filling of the impurity atom on the impurity subsystem behaviour is investigated. The states are found in which the electron is localized in the region of the impurity centre and their energies are evaluated. The size of this region is of an order of 1 to 2 cell size. A mechanism of mixing these states, forbidden in a free atom, and which allows to treat these states as nonstationary, is discovered.

Keywords: lattice deformations, impurity subsystems, impurity atoms, electrons

Citing Literature

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