

SYNTHESIS AND PROPERTIES OF SOLID SOLUTIONS OF SYSTEM $\text{Bi}_{1-x}\text{Pb}_x$ NEAR TO BISMUTH

Ju. M. Bondarev, E. G. Goncharov, O. V. Glus

The concentration area of occurrence of extremums on isotherms of properties of solid solutions in system Bi–Pb near to clear bismuth is defined. The model explaining occurrence of extremums by interaction of extrinsic atoms of lead both with natural (equilibrium) vacancies of bismuth, and with follow-up originating is offered due to a strain of crystalline structure. Designed thermoelectric quality factor Z obtained it is model, confirms perspectivity of practical use of extreme composition $\text{Bi}_{0,997}\text{Pb}_{0,003}$ for manufacture of thermoelectric transducers.