M. V. Kobets, P. O. Selyshchev, V. I. Slisenko KINETICS OF CLUSTERS FORMATION AND ACCUMULATION IN CRYSTAL UNDER CASCADE-GENERATING IRRADIATION

Formation of point defect clusters under cascade-generating irradiation is theoretically investigated. Steady-state size distribution of cluster and its dependence on parameters is obtained. A simplified system of kinetic equations for describing of clusters formation in quasi-stationary approximation was proposed. Time dependencies of point defects concentrations and their clusters for original and simplified systems were plotted, their comparative analysis was performed.

Keywords: irradiation, vacancies, interstitial atoms, clusters, size distribution.