ENERGY SPECTRUM OF ELECTRONS IN A THREE-LAYER HETEROSYSTEM WITH SELF-ASSEMBLED DEFECT-DEFORMATION STRUCTURES

R.M. Peleshchak, O.V. Kuzyk, O.O. Dan'kiv

Ivan Franko Drogobych State Pedagogical University
(*24, Ivan Franko Str., Drogobych 82100, Ukraine;*
e-mail: peleshchak@rambler.ru)

S u m m a r y

Equations, which enable the electron energy spectrum in a three-layer heterosystem containing a cluster of point defects in a quantum well to be calculated, have been derived in the framework of the deformation potential method. The dependence of the electron energy difference between the first excited and ground states on the average concentration of point defects of the stretching-center type has been studied for various effective electron masses in a nanocluster material.