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**DEGRADATION OF QUANTUM DOTS AND CHANGE OF THEIR ENERGY SPECTRA
IN SEMIMAGNETIC SEMICONDUCTORS UNDER NUCLEAR IRRADIATION**

Spreading of the potential profile for the charge carriers in quantum dots in binary semiconductors and the shift of the quantum levels for electrons, holes and excitons under the nuclear irradiation has been investigated. The spreading occurs because of the redistribution of atoms of different kinds between the barrier and quantum dot due to radiation-enhanced diffusion. It is shown that in semimagnetic semiconductors (e.g. CdTe/(Cd, Mn)Te), in which a giant magnetic splitting of exciton levels exists, the redistribution of magnetic ions under irradiation causes significant increase in the splitting of exciton levels in a magnetic field in a quantum dot.

Keywords: radiation-enhanced diffusion, quantum dots, semimagnetic semiconductors.