

**SOME RADIATION EFFECTS IN QUANTUM-SIZE
A3B5 AND A2B6 STRUCTURES, GROWN ON SEMIINSULATING GaAs**

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The effect of electron ($E=1.8$ MeV), γ -quantum ^{60}Co and X-ray irradiation ($E\leq 100$ keV) on the photoluminescence, PL, and optical reflection of the GaAs/GaAlAs i CdZnTe/ZnTe quantum-size structures. The quantum wells, QWs, of the A3B5 structures were grown by the MOCVD-technique, the QWs of the A2B6 structures were grown by the MBE method on the semiinsulating, SI, GaAs substrates. The high radiation hardness of A3B5 QWs after irradiation up to dose of $2\cdot 10^9$ rad was found, while SI GaAs substrates manifested characteristics degradation under such irradiation dose. A2B6 QWs tends to degrade under sufficiently lower irradiation dose. The well profile change was calculated from PL peak energy shift. The role of Cd diffusion and internal strain in radiation enhanced quantum-size structures degradation is discussed.