MAGNETIC DEPENDENCE OF EXCITON SPECTRA IN QUANTUM WELLS IN IRRADIATED SEMIMAGNETIC SEMICONDUCTORS

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Dependence of the exciton spectra on the magnetic field in $Cd_{1-x}Mn_xTe/CdTe/Cd_{1-x}Mn_xTe$ quantum wells irradiated with high-energy particles is calculated in this work. It was shown that the substantial increase in splitting of exciton levels in quantum well takes place in the irradiated samples in the presents of magnetic field. The increase in splitting is caused by the growth of the exciton exchange interaction with magnetic ions of manganese, which penetrates into quantum well because of irradiation. Magnitude of the effect as the function of irradiation dose and quantum well width is investigated.