DEPENDENCE OF THE PARAMETERS OF SILICA GLASS ON FAST NEUTRON FLUENCES

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S u m m a r y

The influence of neutron irradiation on some parameters of vitreous silicon dioxide is investigated by the methods of optical, dielectric, and X-ray spectroscopy. The regularities governing the change in the spectral characteristics, structure parameters, polarizability, and of the refractive index of vitreous silicon dioxide in a wide range of fluences of fast neutrons are determined. It is assumed that the revealed features of the corresponding dose dependences of some characteristics are caused by the radiation-simulated change in the structure of the substance. The effect of the large doses is considered.