RADIATION-INDUCED MODIFICATIONS OF ELECTRICAL PROPERTIES OF VITREOUS DIELECTRIC SiO_2

I.Kh. Abdukadyrova

Institute of Nuclear Physics, Uzbekistan Acad. Sci.
(*Ulugbek, Tashkent 702132, Uzbekistan*)

S u m m a r y

The regularities of the radiation-thermal modifications of electrical properties of vitreous dielectric SiO_2 are studied in a broad range of temperatures and ionizing radiation doses. The activation energies are determined, and the non-activation law for the temperature dependence of bulk material electrical conduction is found, whose parameters are different in the low- and high-temperature regions. Experimental results are discussed in the framework of the existing models of charge transport.