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EVALUATION OF RADIATION STABILITY OF GRANITOID ROCKS OF UKRAINE

For the purpose of prediction of the radiating stability of granitoid rocks in conditions of a burial of radioactive waste the experiments on irradiation granites by accelerated electrons with energy of E = 7 MEV have been made. Calculations of the absorbed doze distribution and lengths of electrons free pass depended on depth in investigated samples was executed. Structural-phase transformations of the basic rockforming minerals after their irradiation have been investigated. The comparative evaluation of radiation stability of different Ukraine granitoids has been carried out. It was established, that in the investigated range of doses (10^7 - 10^8 Gy) all studied granitoids have retained their integrity, however analysis of changes in the structure of the phase composition and properties of granitoids by electron irradiation showed that under the radiation influence the most stable are two varieties: plagiogranites and quarts syenites.

Keywords: electron irradiation, radiation firmness, granitoid rocks, minerals, structural-phase transformations.