

TO THE ROLE OF DECAYS OF EXCITED
RADIOACTIVE NUCLEI IN NUCLEAR
CHRONOMETRY

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The theoretical evaluation of influence a gamma-de-excitation of excited states of nuclei on the magnitude of effective duration of disintegration of a radioactive substance is carried out. It is shown that gamma-emission and gamma-absorption results in essential diminution of the common effective duration of the total disintegrating at a sufficiently high concentration of excited states under large densities and volumes of a radioactive substance typical for explosions of supernovas. The same consideration results also in the re-estimation of the age of radioactive terrestrial samples, obtained by the methods of the conventional nuclear chronometry, in the direction of its diminution.