

Results of EPR Dosimetry Study of Population Residing in the Vicinity of the Uranium Mines and Uranium Processing Plant

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Abstract : The aim of the study is to evaluate the possible excess of dose received by uranium processing plant workers. The possible excess of dose of workers was evaluated with comparison with population pool (Stepnogorsk) and control pool (Astana city). The measured teeth samples were extracted according to medical indications. In total, twenty-seven tooth enamel samples were analyzed from the residents of Stepnogorsk city (180 km from Astana city, Kazakhstan). About 6 tooth samples were collected from the workers of uranium processing plant. The results of tooth enamel dose estimation show us small influence of working conditions to workers, the maximum excess dose is less than 100 mGy. This is pilot study of EPR dose estimation and for a final conclusion additional sample is required.

Keywords : EPR dose, workers, uranium mines, tooth samples

Conference Title : ICB 2014 : International Conference on Biology

Conference Location : Istanbul, Türkiye

Conference Dates : December 05-06, 2014