Evaluation of radioactivity levels in sediment samples collected from Beni Haroun dam using high resolution gamma-ray spectrometry

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Abstract

The majority of exposure to radiation comes from natural sources. Therefore, the knowledge of radionuclide distribution and radiation levels in the environment is important. The purpose of the study is twofold: first to measure the concentrations of radionuclides in sediment samples collected from three different locations near Beni haroun Dam using hyper-pure germanium detectors where the means activity concentrations levels in the current study for 226Ra, 232Th and 40K were 24.39, 24.53 and 217 Bq/kg, respectively; and second to evaluated the radiological risks associated to these radionuclides by estimating the radiological parameters.

Keywords : Dam sediment samples, Radionuclides**,** Gamma spectrometry**,** Radiation hazards.