

The Measurement of Radionuclides Level in Different Iraqi Building Material Samples from Baghdad City

Measurement of naturally and artificial radionuclide concentrations deposited in Iraqi building materials used in housing construction in the Baghdad city. Six samples from different sites have chosen. (Soil, Gipsion, Cement, Brick, Sand, Gravel). The high purity Germanium detector (HpGe) have been used to measure the concentration of gamma emitter radionuclides from both uranium – radium and thorium series, ^{40}K and ^{137}Cs . The spectra for each sample were analyzed for (7200 sec). The percentage errors were calculated. The range of specific activities for studied radionuclides were as follows: The average concentrations of ^{238}U is between (13-70) Bq/kg, ^{232}Th is (2-34) Bq/kg, ^{40}K is (39-880) Bq/kg, and ^{137}Cs is (0.2-6) Bq/kg.