DETERMINATION OF GAMMA-EMITTING RADIONUCLIDES IN PISTACHIO SAMPLES FROM SOUTHEASTERN ANATOLIA REGION, TURKEY

Ziyafer Gizem Portakal¹, Mehmet Yüksel¹, Tamer Dogan², Sümeyra Balçi Yegen¹, Sibel Akça¹, Elif Gören¹, Fatma Aysun Uğur³, Mustafa Topaksu¹

1 Çukurova University, Arts and Science Faculty, Physics Department, Adana, Turkey
2 Çukurova University, Vocational School of Imamoglu, Department of Computer Technologies, Adana, Turkey
3 Osmaniye Korkut Ata University, Arts and Science Faculty, Physics Department, Osmaniye, Turkey

As an important component of earth, natural radionuclides such as uranium and thorium series radioisotopes and natural ⁴₀K should be determined due to their existence in water, soil, sediment, plants and air. Hence several health effects such as chronic diseases occur through inhalation and ingestion of radionuclides in a long term exposure. However, the radioactivity levels of pistachio in Turkey, one of the most prominent appetizers in Southeastern Anatolia region, were not studied previously in spite of its contribution to the external doses absorbed by the population. In the present study, pistachio samples collected from seven districts in Gaziantep city of Southeastern Anatolia, Turkey has been analyzed for ²²⁶Ra, ²³²Th and ⁴₀K by using gamma ray spectroscopy to obtain natural radioactivity levels as a part of environmental monitoring. The measured activity concentrations showed that the mean values are comparable with the reported International average (UNSCEAR, 2000).

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