

RADIOACTIVE CONTRIBUTION OF GEOTHERMAL WATERS IN THE WESTERN TURKEY

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There are great number of geothermal spring waters in the Western Turkey which consist of numerous fault systems. The hot waters are pumped out surface from various depths. Geothermal springs include more radioactive substances than drinking waters due to their high temperatures and high saline concentrations which ease the solution of radioactive substances at the deep regions of the Earth's crusts.

In this project, Seferihisar and Çeşme were selected as study regions. Radon concentrations in soils in thermal water regions were analyzed by using LR115 nuclear tract detectors. In addition, radon levels in thermal waters were measured by using collector method. Rn-222 concentrations in soils have been found to be ranging from 100 iz/cm² to 3000 iz/cm²/week. Radon results in waters were found between 0,1 Bq/L and 24 Bq/L. According to our results, it was observed that the soils in Seferihisar Cumalı, Karakoç, Doğanbey, Ürkmez stations and Çeşme Şifne, Topan, Yıldızburnu, Delmar, Uzunkuyu, Naturel, Süzer Stations were polluted by geothermal waters.