

## **Determination concentration of Radon222 in Tap drinking water; Bandar Abbas City, Iran**

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**Abstract:** Isotope radon222 is one of radioactive elements that is colorless, odorless with a half-life of 3.825 days that can endanger the human health by alpha-ray emissions into air, water and food. The consumption of water containing Radon 222 can cause stomach cancer in the humans in the long term. In this descriptive cross sectional study, 48 water samples were collected from 8 regions of Bandar Abbas city during June 2015. Then, the concentration of Radon222 was measured by the portable Radon-meter model RTM1688-2. The range and mean concentration of Radon222 in tap drinking water is, 15-153 Bq/m<sup>3</sup> and 82±28 Bq/m<sup>3</sup> , respectively. Also, the highest and lowest concentration of Radon222 was related to regions 3 and 7, respectively. The concentration of Radon222 in tap drinking water of Bandar Abbas city is lower than WHO and EPA standard limits.

**Keywords:** Concentration of Radon222, tap water, Bandar Abbas City