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## Analysis of $^{238}\text{U}$ , $^{232}\text{Th}$ and $^{222}\text{Rn}$ in various fish samples and resulting radiation doses to the consumers

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Naturally occurring radionuclides existed since the creation of the earth some 4.5 billion years ago. They are present in rocks, soils, water, air, plants, and animals and even in the human body. According to the Food and Agriculture Organization (FAO), Morocco produces about 1.5 million tons of fish per year. Morocco is the first producer of sardines (*sardine pilchardus*) in the world. In the present work,  $^{238}\text{U}$ ,  $^{232}\text{Th}$ ,  $^{222}\text{Rn}$  and  $^{220}\text{Rn}$  concentrations were measured in different fish samples collected from different fishing zones in Morocco by using a solid state nuclear tracks detectors method. Alpha radiation doses due to  $^{238}\text{U}$ ,  $^{232}\text{Th}$ , and  $^{222}\text{Rn}$  from the ingestion of different fish samples was evaluated. The influence of the consumption rate and fish nature as well as pollution on the radiation doses received by individuals was studied.

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