Radiation contamination factor (RCF) in marine sediments from Cuba north and south coasts

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All human activity, biomass metabolism and natural event that occur on the surface or inside of the earth occur with emissions of gases, particulate matter, aerosols and others. These are dispersed into the atmosphere, and integrated into the biogeochemical cycles that develop on Earth and can be considered contaminants when they result in risk or damage to persons or property under certain circumstances. During a time period little longer than 60 years, it has been created a radioactive pollution background over the natural one, which started in 1945 and it has been growing up since then, due to several nuclear test, minor nuclear reactors failure and accidents. At present time radioactive contamination is a fact easily proved by radioactive detection from marine sediments, chosen samples in view of the much larger proportion of sea surface on the planet. This short of samples contains appreciable concentration of minerals with natural radioactive isotopes such as $^{40}$K. Therefore, the only way to assess the magnitude of radioactive contamination is by comparing it with forever present natural radioactivity. So in this work, radioactivity from fission product $^{137}$Cs is compared with that of natural radioisotope $^{40}$K as percentage, both found in marine sediments of the Cuban coasts.

Biography

Marisé García Batlle has completed her graduation in Radiochemistry at the Higher Institute of Nuclear Technologies and Applied Sciences in Havana in 2014. She has worked in laboratories of preclinical studies in the clinical research center in Havana and as Assistant Professor at the Institute of Nuclear Technologies and Applied Sciences. She has worked in radio-pharmacy in search of new radio-labeled compounds for treatment of bone diseases. In 2016, she was admitted to the Master’s degree in Chemical Science in the National University of Mexico, and works in the areas of radioactive contamination under advice of Dr. Navarrete.

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