



Assessment of current natural and anthropogenic radionuclide activity concentrations in the bottom sediments from the Barents Sea.

<https://arctichealth.org/en/permalink/ahliterature304890>

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Source: Mar Pollut Bull. 2020 Nov; 160:111571

Date: Nov-2020

Language: English

Publication Type: Journal Article

Keywords: Arctic Regions
Geologic sediments
Ice Cover
Oceans and Seas
Water Pollutants, Radioactive - analysis

Abstract: The article is devoted to the study of the activity values of natural radionuclides ^{40}K , ^{232}Th and ^{226}Ra and technogenic radionuclide ^{137}Cs in the bottom sediments of the Barents Sea, which is distinguished from the rest of the Arctic seas by the fact that the largest number of radiation objects are concentrated here. The activity levels of natural radionuclides were within the range of activity values corresponding to marine sediments around the world. The highest radionuclide activities were found within the deepwater shelf of the Barents Sea. The current level of activity of the technogenic radionuclide ^{137}Cs is low and does not exceed $6.5 \text{ Bq}\cdot\text{kg}^{-1}$. However, due to global climatic changes, the secondary source of radiation pollution of the sea may be the Novaya Zemlya ice sheet, in which huge quantities of technogenic radionuclides were deposited during atmospheric tests of the 1950s and 1960s.

PubMed ID: 32861940 [View in PubMed](#) 