

Trend Analysis of Cesium-137 Concentrations Observed in Kuwait Before and After Fukushima Nuclear Disaster

State of Kuwait has a typical dry desert climate which involves deposition and resuspension of atmospheric particulate matter. The International Data Center (IDC) of the Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), has been processing radionuclides data received from the RN40 station located in the state of Kuwait. The data include gamma-ray spectrometry, meteorological data, as well as the backward trajectory atmospheric modeling (ATM) results. This paper presents a trend analysis for the measured Cs-137 concentrations for the years 2008 to 2014 collected from RN40, before and after Fukushima nuclear disaster. The aim of this work is to evaluate the potential impact of Fukushima incident on the concentrations of terrestrial deposition of Cs-137 in Kuwait, the activity of this radionuclide were presented in the soil and atmosphere due to the past nuclear testing and/or accidental reactor releases into the atmosphere.

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Track Classification: 1. The Earth as a complex system