

The Effect of Atmospheric Boundary Layer on the Detected Radionuclides in Kuwait

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The atmospheric planetary boundary layer (ABL) plays a major role in the detected radionuclides concentrations at the ground level; it can describe the dynamic and the behavior of the air movement in the region of interest. In this work, data collected from the CTBTO/IMS RN40 station for the years 2013-2018 along with the measurements of the upper air temperature using MTP-5H microwave temperature profiler were used to study the influence of Kuwait ABL on the concentrations of Be-7 as a natural and Cs-137 as an anthropogenic radionuclides in atmosphere. Results showed that the height and the frequencies of the formation of the surface temperature inversion were linked with the high concentrations of both radionuclides detected in Kuwait.

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