



Nuclear Experiment

Aerial Measurement of Radioxenon Concentration off the West Coast of Vancouver Island following the Fukushima Reactor Accident

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In response to the Fukushima nuclear reactor accident, on March 20th, 2011, Natural Resources Canada conducted aerial radiation surveys over water just off of the west coast of Vancouver Island. Dose-rate levels were found to be consistent with background radiation, however a clear signal due to Xe-133 was observed. Methods to extract Xe-133 count rates from the measured spectra, and to determine the corresponding Xe-133 volumetric concentration, were developed. The measurements indicate that Xe-133 concentrations on average lie in the range of 30 to 70 Bq/m³.

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