



ID: P3.6-126

Type: E-poster

activity concentration at Eastern Europe IMS Particulate Stations in 2011 and the influence of meteorological parameters

In 2011, the Fukushima nuclear disaster was a big accident and the approximate cause is the Tohoku earthquake and tsunami. In the days after the accident, radiation was released into the atmosphere and water, and caesium was detected at IMS particulate stations. Caesium (Cs) is a chemical element in the periodic table with atomic number 55 and 40 known isotopes. This study presents the activity concentrations of caesium 134, caesium 136 and caesium 137 in Eastern European stations in 2011 by collecting the data using the RN toolkit. Low and high concentration activity of caesium 134 is observed at RUP 60 (0.7197 uBq/m³) and RUP 61 (773.4387 uBq/m³), caesium 136 level reached 0.66403 uBq/m³ at RUP 60 and 55.34395 uBq/m³ at RUP 61 while caesium 137 ranges from 0.4809777 uBq/m³ to 1004.487 uBq/m³ at RUP 61 as low and high concentration activity respectively. The results of time series and caesium activity diagrams revealed the increase of caesium activity concentration in March and April. Meteorological data was used to make a correlation with different caesium ranges to display the influence of these parameters on the variation of caesium. Also, a wind rose diagram was created to reveal wind parameters at station sites.

E-mail

khaldar7@hotmail.com

In-person or online preference

Primary author: Dr ALI, Khaldar (Remote sensing and Seismology Authority)

Presenter: Dr ALI, Khaldar (Remote sensing and Seismology Authority)

Session Classification: P3.6 Analysis of Radionuclide Monitoring Data

Track Classification: Theme 3. Monitoring and On-Site Inspection Technologies and Techniques: T3.6 Analysis of Radionuclide Monitoring Data