

Measurement of radioargon and radioxenon in soil gas

The most important indicators for a UNE during an OSI are the radioactive xenon isotopes Xe-131m, Xe-133 and Xe-133m and the radioactive argon isotope Ar-37. In the assessment of a detection of these nuclides it is important to have knowledge about the levels that can be expected due to the natural background. Therefore, it is interesting to measure the background levels of radioxenon and radioargon in soil gas, along with other components (i.e. radon, CO₂, O₂). The relationship between these constituents are also of interest. Sub soil sampling has been carried out in the region of Kvarntorp (Sweden), a location with known elevated uranium content in the ground. Almost 40 samples has been taken from ten different sites. The preliminary results from analyzing these will be presented.

Primary author: KASTLANDER, Johan Lars (Swedish Defence Research Agency (FOI))

Presenter: KASTLANDER, Johan Lars (Swedish Defence Research Agency (FOI))

Track Classification: Theme 2. Events and Nuclear Test Sites