

-37 Field System Measurements

Tuesday, 20 June 2023 17:40 (15 minutes)

This presentation will highlight background measurements of Ar-37 samples that were conducted at in Knoxville, Tennessee, USA to better understand the sources of atmospheric concentrations of Ar-37 using the Argon-37 Field System. The PNNL designed and built Argon-37 Field System has now processed and measured several hundred Ar-37 samples from both the soil gas and from the atmosphere. The system was designed to process whole air samples from soil gas, the atmosphere and from the output of radionuclide systems to detect Ar-37 in an above ground portable system. During this campaign, samples were collected at location, near Xenon International, and sent back to PNNL for processing and measurements as opposed to sending the system to a location and operating it remotely. Correlation with radionuclide measurements from the same air mass were conducted and will be discussed.

Promotional text

The work cited in this presentation fosters strengthening nuclear test monitoring through the development of advanced radionuclide detection systems.

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Oral preference format

in-person

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Session Classification: O2.4 Atmospheric and Subsurface Radionuclide Background and Dispersion

Track Classification: Theme 2. Events and Nuclear Test Sites: T2.4 Atmospheric and Subsurface Radionuclide Background and Dispersion