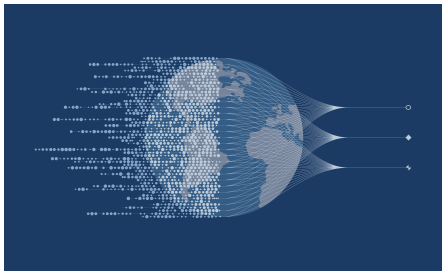

ID: **P2.3-699** Type: **E-poster**

Argon-37 and Radioxenon Measurements

Argon-37 has been observed from both civilian phenomena and nuclear explosions and while it is not currently part of the IMS monitoring, it is an important radionuclide in on-site inspection for nuclear explosive testing. Lately, radioxenon observations have been muddled by new radionuclide sources such as medical isotope facilities and nuclear power plants. Adding argon-37 to atmospheric monitoring alongside radioxenon could help distinguish between these civilian sources and a nuclear explosive test. Pacific Northwest National Laboratory has recently correlated whole-air Argon-37 measured on the Argon-37 Field System with radioxenon measured in a Xenon International system. While the global Argon-37 background is not yet well understood, there is a correlation between the radioisotopes measured. This talk will discuss the results of these measurements as well as atmospheric modeling and case studies where Argon-37 in the IMS would be useful.

E-mail

benjamin.asher@pnnl.gov

In-person or online preference

Primary author: ASHER, Benjamin (Pacific Northwest National Laboratory (PNNL))

Co-authors: Mr HAYES, James (Pacific Northwest National Laboratory (PNNL)); Dr MAYER, Michael (Pacific Northwest National Laboratory (PNNL))

Presenter: ASHER, Benjamin (Pacific Northwest National Laboratory (PNNL))

Session Classification: P2.3 Atmospheric and Subsurface Radionuclide Background and Dispersion

Track Classification: Theme 2. Monitoring events and Nuclear Test Sites: T2.3 Atmospheric and Subsurface Radionuclide Background and Dispersion