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# of the Phase II Test of Xenon International on Mount Schauinsland - What can be Gained from Higher Sensitivities and Shorter Sampling Periods?

*Tuesday, 20 June 2023 17:10 (15 minutes)*

We will review data from Phase II testing of Xenon International at RN33. Xenon International is a new generation radioxenon monitoring system developed by PNNL with a short sampling time of 6 hours. Phase II testing of Xenon International was conducted from July 2021 to April 2022 at International Monitoring System (IMS) radionuclide monitoring station RN33 on Mount Schauinsland, Germany. Activity concentrations of spiked and selected environmental samples were verified by reanalysis in either one of the IMS laboratories or the BfS noble gas laboratory in Freiburg. The activity concentrations measured by Xenon International are consistent with data from the current operational IMS system SPALAX at RN33, with sensitivities of Xenon International up to one order of magnitude higher for Xe-131m, Xe-133m and Xe-135. We will investigate multiple isotope detections and unusual single detections and explore the benefits of a 6 hour time resolution taking into account new ATM backwards calculation with hourly resolution.

## E-mail

sbrander@bfs.de

## Promotional text

What can be gained from radioxenon monitoring with higher sensitivities and shorter sampling periods at International Monitoring System station RN33?

## Oral preference format

in-person

**Primary author:** Ms BRANDER, Sofia (Federal Office for Radiation Protection (BFS))

**Co-authors:** Mr ORR, Aaron (Teledyne Brown Engineering, Inc); Mr BOLLHOFER, Andreas (Federal Office for Radiation Protection (BFS)); ROSS, J. Ole (Federal Institute for Geosciences and Natural Resources (BGR)); Mr HAYES, James (Pacific Northwest National Laboratory (PNNL)); PANISKO, Mark (Pacific Northwest National Laboratory (PNNL)); Mr MAYER, Michael (Pacific Northwest National Laboratory (PNNL)); HOWARD, Michael Robert (Teledyne Brown Engineering, Inc); KRAIS, Roman (Federal Office for Radiation Protection (BFS)); SAYNE, Ryan (Teledyne Brown Engineering, Inc); BAUR, Sandra

**Presenter:** Ms BRANDER, Sofia (Federal Office for Radiation Protection (BFS))

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