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# of 12 months of radioxenon monitoring array data in the UK

In the analysis of radioxenon sampling data from three SAUNA QB systems sited in the North of England, a variety of different approaches have been used to identify the likely source(s) of over 300 detections of Treaty-relevant isotopes of radioxenon. This work utilises stack monitoring data from both European radionuclide emitters and local sources, forward atmospheric transport & dispersion modelling (ATDM) techniques, inverse-ATDM, and source reconstruction efforts. Our work demonstrates how developments in radioxenon analysis and assessment tools over the last 10+ years has greatly improved radionuclide detection analysis. This work provides a deep dive on a number of interesting detections on the array, and what we have learnt from both the measurement campaign and data analysis.

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