

## **Analysis of high time-resolution observations of radioxenon releases from BWRs compared to stack data and reactor operation parameters**

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The newly developed SAUNA III – radioxenon system prototype has been running in Stockholm since 2016 and provided a rich data set of atmospheric radioxenon observations with 6 hour time resolution. A large part of the observed plumes originates from releases from the nuclear power plant Forsmark, located 110 km north of the system, and includes many observations/releases with three or even four isotopes. To gain better understanding of the observed plume shapes and isotopic ratios, data has been compared with stack- and other operational data provided by the plant, in combination with different atmospheric transport models as well as calculations of different nuclear production- and separation scenarios.

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