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Preliminary analysis results of ongoing temporary radioxenon background measurement campaign in Japan

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In 2017, the Government of Japan has decided to make a voluntary contribution to further enhance the capabilities of the CTBTO verification regime. In that framework, two transportable noble gas systems were deployed in Horonobe and Mutsu. They respectively started operating in February 2018 and March 2018. Continued operation of the two systems is now financially supported with funding from European Union Council Decisions.

Together with the IMS station RN38 in Takasaki, this forms a temporary high-density configuration network enabling observation of the same event release at different locations at distances of about 500 km from each other.

As of today, few thousands of samples were already collected and measured in Mutsu and Horonobe, and this number is still increasing daily. Resulting spectra are automatically sent to the IDC and processed in a non-operational database. They are routinely reviewed, and the concentrations of the four xenon isotopes of interest for the CTBTO (131mXe, 133mXe, 133Xe and 135Xe) are calculated. Analysis results are made available (together with raw data) to State Signatories through a Secure Web Portal.

In this work, preliminary analysis results of ongoing temporary background measurement campaigns are presented.

Promotional text

Preliminary analysis results of ongoing temporary background measurement campaigns in Japan are presented in this e-poster.

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