

Trends in worldwide background of CTBT-relevant xenon isotopes based on IMS data

The CTBTO operates 25 certified Noble Gas (NG) systems of the International Monitoring System (IMS). The data is routinely processed in the International Data Centre (IDC) operations. Data from these certified NG systems are reviewed by IDC Analysts on a daily basis. Automated and reviewed products are generated and made available to Member States via the IDC secure web portal (SWP) and through the Verification Data Message System (VDMS). IDC products include a 3-level based categorization scheme as a first screening layer of CTBT relevant xenon isotopes. IDC reviewed results over a long term period at various locations further contributed to a reliable characterization for better understanding the worldwide background of xenon isotopes. The presentation aims at compiling results on radio-xenon detections at IMS NG systems, based on all data from June 2011 to December 2018. Covered aspects include major categories of observed trends in terms of detection frequency and air activity concentration.

Primary author: GHEDDOU, Abdelhakim (CTBTO Preparatory Commission)

Presenter: GHEDDOU, Abdelhakim (CTBTO Preparatory Commission)

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