ID: Type: **Poster**

3.2-P13. High resolution electron-photon detection system: a major breakthrough for fission product analysis

In the framework of the CTBT verification regime , recent developments related to IMS station detection systems involving semi-conductor detectors for both electron (silicon) and photon (germanium) high resolution measurements will lead to a major breakthrough in fission product traces analysis in the atmosphere. Coupled to an efficient xenon air extraction and concentration process, high resolution electron photon coincidences performed in listmode acquisition allow reliable quantification of the 4 relevant CTBT radioxenons at levels as low as 0.1 mBq/m3. The same innovative detection system is also of interest by adding new capabilities such as beta-gamma coincidence signatures in certain IMS particulate measurements (3M type filter).

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