

Laboratory Sample Ganging: Characterization of Multisample Holder Positions to Screen Out the Samples

One main effort in the OSI laboratory field activity is to ensure a high throughput of gamma spectrometry analysis of the samples. Most of the typical analysed samples, such as soils, are supposed to be within environmental range of activity and it is very important to screening out any anomaly in the gamma spectra of the samples. A multisample holder, with two separate layers, has been designed, fabricated and tested for the purpose to analyse simultaneously up to 13 samples with a defined geometry. This approach, allowing the screening of a big number of samples and the ganging of samples according to the OSI search logic strategy, has been tested effectively during IFE14. In this work the procedure for the identification of the sample with anomalous concentration has been further explored. Spiked samples have been measured in different positions of the holder (upper and lower layers) in order to record the response of the detector and to compare the different efficiencies of the positions. The analysis of the data will represent a starting point for the design of a fast and efficient screening procedure for sample ganging measurements.

Primary author: RIZZO, Antonietta (Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA))

Presenter: RIZZO, Antonietta (Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA))

Track Classification: 3. Advances in sensors, networks and processing