



Pretreatment - STUK

Measurement	other
Method used for matrices	other
Separation Method	other
Radionuclide(s)	other
Quantity of sample used (in kg, l, ...)	0.3 - 50 L, 0.1 - 10 Kg
Counting time for the method	-
MDA of the technique	-
FWHM (Energy MeV)	-
Method Evaluated	No
Method Accredited	Yes
Procedure	

Description of the method

Due to low activity levels, the collected samples must be quite large.

- Only air filter samples are measured as such after pressing them into the measuring geometry. Other samples are concentrated in the laboratory with various pre-treatment methods in order to be suitable for analysis.
- Sea water samples are evaporated to smaller volumes and then measured with gamma-spectrometry in Marinelli beakers and afterwards introduced to radiochemical analyses if needed.
- Deposition, milk and drinking water samples are evaporated to dryness, and the residue is ashed in 450 °C. After the gamma measurement, the samples are introduced to radiochemical analyses if needed.
- Soil samples are dried overnight in 105 °C and then sieved with a 2-mm sieve and homogenized. Sediment and sinking matter samples are freeze-dried and then homogenized with a mortar. The samples or sub-samples are first measured with gamma-spectrometry.
- Terrestrial wild plants, natural products, grazing grass, grain, meat, garden products and aquatic indicator organisms are dried overnight in 105 °C and then homogenized with blenders before gamma-spectrometric measurements.
- Fish samples are dried overnight in 105 °C and then ashed in 450 °C before the measurement.



Figure. Pretreatment of environmental and milk samples.

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