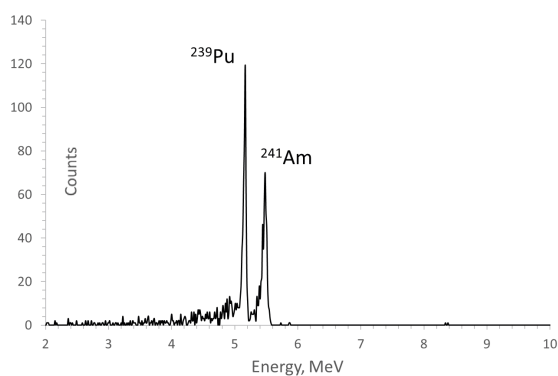


Coming soon : Extractive Discs

- Range of selective impregnated membrane filters
- Ø = 25mm and 47mm Discs will be available
- Various extractant systems (TK100, TK201, GrossAlpha, CU,...) in beta-testing
- More Discs under development
- For use in filtration or passive sampling set-ups

Use of TK-GrossAlpha Discs for direct alpha spectrometry of aqueous samples



Alpha spectrum, 25mm TK-GrossAlpha Disc,
20 mL HNO₃ at pH2 spiked with
30 mBq each Am-241 and Pu-239

Disc preparation

Sample filtration
(at pH 1 – 2)

↓

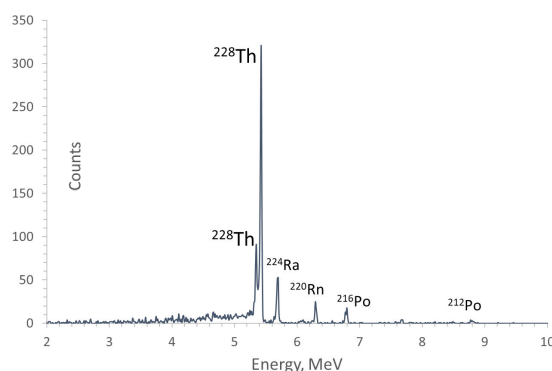
Drying of the disc

↓

Gluing on a
rigid support

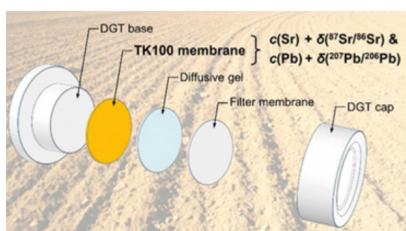
↓

Alpha spectrometry
measurement



Alpha Spectrum,
47mm TK-GrossAlpha Disc,
100 mL Pedras mineral water at pH 1

TK100 Discs for passive sampling in soils



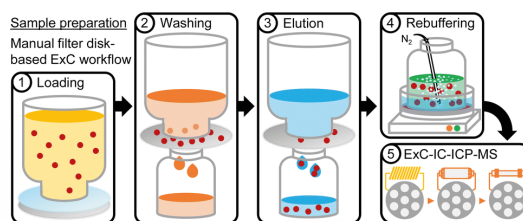
DGT set-up using TK100 Discs for Sr and Pb capture

« *Selective Diffusive Gradients in Thin Films (DGT)
for the Simultaneous Assessment of Labile Sr and Pb
Concentrations and Isotope Ratios in Soils* »

Anal. Chem. 2022, 94, 6338–6346

Stefan Wagner, Jakob Santner, Johanna Irrgeher, Markus Puschenreiter,
Steffen Happel, and Thomas Prohaska

TK201 Discs for Tc-99 preconcentration from waste water



Experimental setup, Tc-99 concentration and purification from
waste water using TK201 discs for preconcentration

« *Quantification of technetium-99 in wastewater by
means of automated on-line extraction chromatogra-
phy – anion-exchange chromatography – inductively
coupled plasma-mass spectrometry* »

J. Anal. At. Spectrom., 2024, 39, 2774-2782

Maximilian Horstmann, C. Derrick Quarles Jr, Steffen Happel,
Michael Sperling, Andreas Faust, David Clases* and Uwe Karst