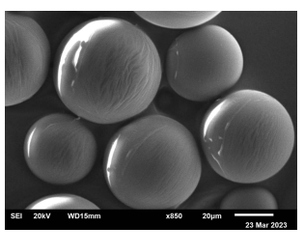
TRISKEM
Expertise in Separation Chemistry

UNIVERSITAT DE BARCELONA

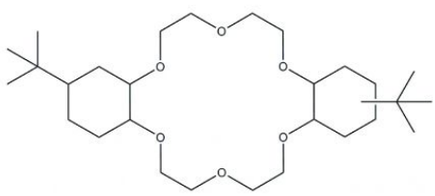
Coming soon: TK-**Sr**Scint

Plastic Scintillation microspheres (PSm) impregnated with a selective extractant Developed by Tarancón & Bagán at Universitat de Barcelona

- Based on **SR Resin** crownether and fluorinated alcohol used in TK102 Resin
- Selectivity similar to **SR** and **TK102 Resin**



TK-SrScint Resin



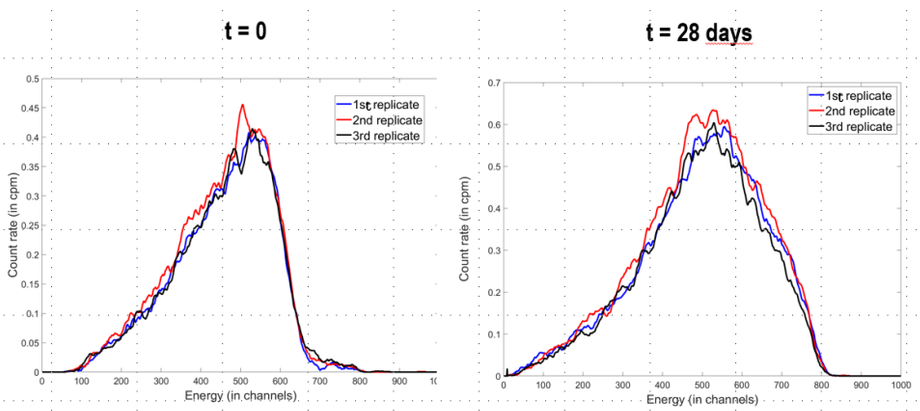
4,4'(5')-di-t-butylcyclohexano-18-crown-6

Available as ready-to-use 2mL cartridges:

- Compatible with vacuum boxes
- Facile automatization

Direct measurement of cartridges :

- No elution/addition of LSC Cocktails
- Detection efficiency:
  - t=0 > 85%*
  - t=28 days > 185%*
- Tested on milk+ and river water* samples
- Sr yield ≥ 85%, deviation: < ±10%



Sr-90 spectra on TK-SrScint at t=0 (after Sr-90/Y-90 separation) and after 28 days (Y-90 ingrown), measured on a 300SL (Hidex)

Advantages:

- Less hands-on time
- Faster turn around time
- Less radioactively contaminated waste
- No mixed wastes

Application:

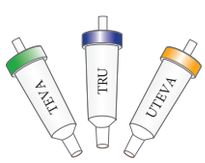
Sr-90 determination in environmental and decommissioning samples

Literature:

- Baudat, E., Gautier, C., Bagán, H. et al. Optimization of a new radiochemical method based on extraction chromatographic resins and plastic scintillation for measurement of 90Sr in nuclear waste. J Radioanal Nucl Chem. https://doi.org/10.1007/s10967-024-09396-8. 2024
- *I. Giménez, J. Rotger, E. Apellániz, H. Bagán, J. Tent, A. Rigol, A. Tarancón. A new method based on selective fluorescent polymers (PSresin) for the analysis of 90Sr in presence of 210Pb in environmental samples. Applied Radiation and Isotopes, Volume 199, 110879. https://doi.org/10.1016/j.apradiso.2023.110879. 2023.
- +Marina Sáez-Muñoz, M.; Bagán, H.; Tarancón, A.; García, J.F.; Ortiz, J.; Carlos, S.; Martorell, S. Rapid methods for radiostrontium determination in aerosol filters and vegetation in emergency situations using PS resin . Journal of Radioanalytical and Nuclear Chemistry, 322:1397-1408. https://doi.org/10.1007/s10967-019-06779-0. 2019.
- Marina Sáez-Muñoz, M.; Bagán, H.; Tarancón, A.; García, J.F.; Ortiz, J.; Martorell, S. Rapid method for radiostrontium determination in milk in emergency situations using PS resin. Journal of Radioanalytical and Nuclear Chemistry. 315, 543–555. 2018
- H. Bagán, A. Tarancón, G. Rauret, J.F. García. Radiostrontium separation and measurement in a single step using plastic scintillators plus selective extractants. Application to aqueous sample analysis. Analytica Chimica Acta, 686, 1-2, 50-56. 2011.

Products	Applications*
UTEVA Resin	U, Th, Np, Pu
TRU Resin	Fe, Pu, Am/Cm, Th, Pa, U, Np
TEVA Resin	Tc, Th, Np, Pu, Am/lanthanides
SR Resin	Sr, Pb, Po
PB Resin	Pb
DGA Resins	Am, Actinides, Y, Ra/Ac
DGA Sheets	Quality control of Ra-223, Pb-212, Ac-225/Bi-213, Ge-68/Ga-68
LN Resin Series	Lanthanides, Ra-228
NI Resin	Ni, Pd
RE Resin	Rare earth, Th, U, Np, Pu, Am, Cm
CL Resin	Cl, I, Ag, Pa
CU Resin	Cu
ZR Resin	Zr, Ti, Ge, Ga, Nb
TBP Resin	Sn,, Ga, Actinides, Zr, Sc
TK100/1 Resin	Sr, Ra, Pb (direct separation)
TK102 Resin	Sr, Pb, Ba/Ra separation
TK200 Resin	Ga-67/8, U, Pu, Th, Zr
TK201 Resin	Tc, Re, Pu, Cu
TK221/2	Am, Ac, U, Sc
TK400 Resin	Pa, Fe, Nb, Mo, Ga, Po
AC Resin	Actinides separation/ gross alpha measurement, Be
Pre-Filter & Guard Resin	Organic traces removal, Ge
MnO_2 PAN Resin	Ra
CS Resins (AMP-PAN & KNiFC-PAN)	Cs-134/7
Analytical grade Ion Exchange Resins	Preconcentration
Monophos Resin	Actinides and transition metals
Tritium columns	H-3
Ra Nucfilm discs	Ra
Resolve™ Filters	Microprecipitation
Stainless steel discs	Electrodeposition
Ag and Ni discs & Autodeposition Kits	Po autodeposition

*Main applications are shown in **grey**



Contact us for a free sample: contact@triskem.fr

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