

ISO 13163:2021 (E)

Water quality — Lead-210 — Test method using liquid scintillation counting

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A.2.1	Reagents
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A.2.1.2	Standard solution of Pb(II)
A.2.1.3	Quenching agent
A.2.1.4	Laboratory water, distilled or deionized, complying with grade 3 of ISO 3696
A.2.1.5	Solution of stable iron carrier, approximately 1 g·l ⁻¹ (for example in 0,5 mol·l ⁻¹ HNO ₃).
A.2.1.6	Cationic exchange resin, e.g. sulfonic type 8 % cross-linking.
A.2.1.7	Hydrochloric acid solution, c(HCl) = 2 mol·l ⁻¹ .
A.2.1.8	Nitric acid solution, c(HNO ₃) = 1 mol·l ⁻¹ .
A.2.1.9	Nitric acid solution, c(HNO ₃) = 0,1 mol·l ⁻¹ .

- A.2.1.10 ammonium hydroxide solution, $c(\text{NH}_4\text{OH})$ concentrated = 280 g·l⁻¹.
- A.2.1.11 Ammonium citrate or citric acid solution, $c(\text{C}_6\text{H}_{11}\text{NO}_7)$ or $c(\text{C}_6\text{H}_8\text{O}_7) = 0,01 \text{ mol}\cdot\text{l}^{-1}$ to 0,1 mol·l⁻¹
- A.2.1.12 EDTA solution, $c(\text{C}_{10}\text{H}_{16}\text{N}_2\text{O}_8) = 0,01 \text{ mol}\cdot\text{l}^{-1}$.
- A.2.1.13 Chromatographic extraction resin, 18C6 Crown ether-type resins.
- A.2.1.14 Liquid scintillation cocktail
- A.2.2 Apparatus
 - A.2.2.1 Centrifuge or vacuum filtration system.
 - A.2.2.2 Membrane filter, of pore size 0,45 μm.
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Annex B (informative) Spectra examples