



Featuring research from Prof. Yoshitaka Takagai's laboratory, Faculty of Symbiotic Systems Science, Fukushima University, Fukushima JAPAN.

Direct quantification of femtogram per liter (fg L^{-1}) level ^{90}Sr in rainwater using thermal ionization mass spectrometry

This paper proposes the direct quantification of ^{90}Sr at femtogram per liter (fg L^{-1}) levels using isotope dilution - thermal ionization mass spectrometry of preconcentrated samples. The obtained limits of detection are improved by 10^5 times from conventional analysis and achieved 9.03 attograms per liter (equivalent to 46.1 micro becquerels per liter). Spike and recovery tests were conducted on rain water and related environmental waters (stagnant stock water collected from a swimming pool immediately after the Fukushima Daiichi Nuclear Power Plant accident).

As featured in:



See Jo Aoki and Yoshitaka Takagai, *J. Anal. At. Spectrom.*, 2024, **39**, 408.