

Certificate of Analysis

Antarctic Water
 ^2H & ^{18}O Water Standard - 30ml

Cat No. B2240 – Certificate no. 456322

General

This standard is intended to provide a water sample of known isotopic composition that can be used to calibrate instrumentation and normalise unknown water samples. It is derived from a homogenous batch of depleted water with isotopic values that match those of precipitation in Eastern Antarctica.

It is not intended as a substitute for the primary reference materials distributed by the IAEA.

Values and Uncertainty

The stable hydrogen and oxygen isotope values of this standard were determined by CF-IRMS using VSMOW2, SLAP2 and GRESP for calibration. All samples were prepared by equilibration with hydrogen for $\delta^2\text{H}$ and carbon dioxide for $\delta^{18}\text{O}$.

The results quoted are based on 33 determinations. Uncertainty is expressed as one standard deviation (σ) from the mean value.

B2240	$\delta^2\text{H}$ v-SMOW (‰)	$\delta^{18}\text{O}$ v-SMOW (‰)
Antarctic Water	-447.88 ± 1.12	-65.95 ± 0.26

Storage

Once opened, this reference material should be stored carefully in a cool place with the lid done up tightly enough to avoid evaporation.

Information

Calibrated and bottled September 2024.

The technical aspects involved in the production of this reference material were carried out by Elemental Lab, a division of Elemental Microanalysis. Okehampton, Devon, EX20 1UB, UK.

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For and on behalf of,
Elemental Microanalysis Ltd.

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