

# Certificate of Analysis

Moderately Enriched Water  
 $^2\text{H}$  &  $^{18}\text{O}$  Water Standard - 30ml

Cat No. B2246 – Certificate no. 457386

## 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 a homogenous batch of fresh distilled and deionised water to which enriched waters have been added.

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 IAEA-607 and B2190 (Elemental Microanalysis) 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 30 determinations. Uncertainty is expressed as one standard deviation ( $\sigma$ ) from the mean value.

<b>B2246</b>	<b><math>\delta^2\text{H}</math> v-SMOW (‰)</b>	<b><math>\delta^{18}\text{O}</math> v-SMOW (‰)</b>
<b>Moderately Enriched Water</b>	<b><math>1348.78 \pm 3.04</math></b>	<b><math>70.93 \pm 0.15</math></b>

## 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,  
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