

New Product Information

A new range of IRMS water standards

Elemental Microanalysis is pleased to announce the release of a new suite of water standards for stable isotope analysis, developed by our in-house R&D team.

Created using a selection of enriched and depleted waters, as well as natural waters from around the globe, this new product range includes five waters that are designed to mimic the variation in natural isotopic values found on Earth, plus three enriched waters.

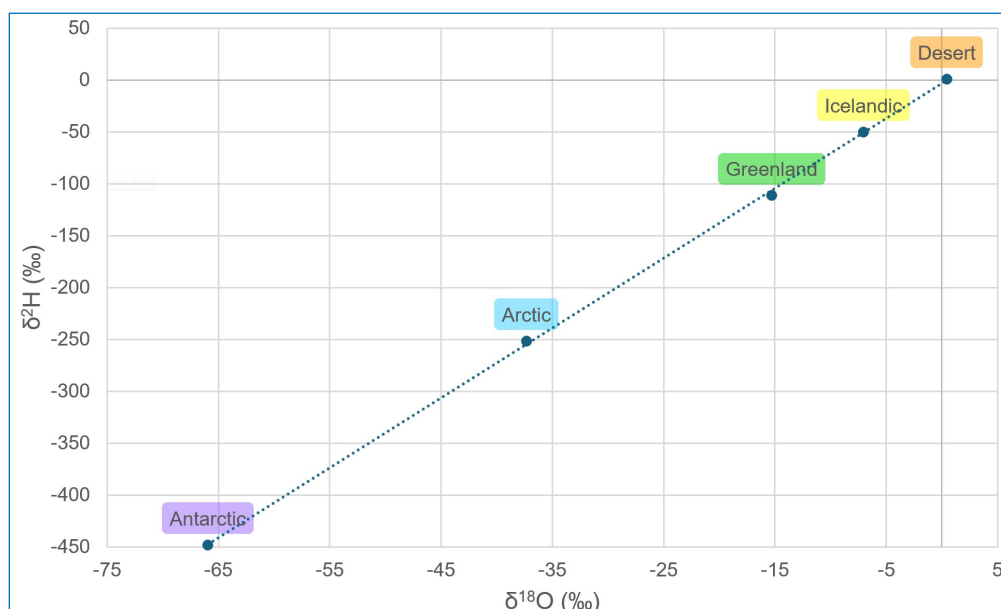
These standards can be used as cost-effective working references and quality control standards for anyone analysing hydrogen and oxygen isotopes in aqueous samples for a wide range of research fields such as paleoclimatology, hydrology, oceanography, and geochemistry. The three enriched waters are useful in applications such as biomedical research, e.g. measuring metabolic rates and total energy expenditure.



Part No.	Description	$\delta^2\text{H}$ V-SMOW2 (‰)	$\delta^{18}\text{O}$ V-SMOW2 (‰)
B2240	^2H & ^{18}O , Antarctic water IRMS standard, 30 ml	-447.88	-65.95
B2241	^2H & ^{18}O , Arctic water IRMS standard, 30 ml	-251.56	-37.33
B2242	^2H & ^{18}O , Greenland water IRMS standard, 30 ml	-111.23	-15.30
B2243	^2H & ^{18}O , Icelandic water IRMS standard, 30 ml	-50.11	-7.05
B2244	^2H & ^{18}O , Desert water IRMS standard, 30 ml	0.86	0.43
B2245	^2H & ^{18}O , Slightly enriched water IRMS standard, 30 ml	79.69	10.28
B2246	^2H & ^{18}O , Moderately enriched water IRMS standard, 30 ml	1348.78	70.93
B2247	^2H & ^{18}O , Very enriched water IRMS standard, 30 ml	2505.97	248.43

V-SMOW2 is the primary reference standard Vienna Standard Mean Ocean Water 2.

The graph (below) shows the distribution of delta values for the five water standards that are designed to mimic natural meteoric* waters from around the world.



*Meteoric water, derived from precipitation such as snow and rain, includes water from lakes, rivers, and ice melts, all of which indirectly originate from precipitation.

New Product Information

A new range of IRMS water standards (continued)

Elemental Microanalysis grew from small beginnings as a microanalytical laboratory to its current form as a leading manufacturer and supplier of consumables, standards, supplies, and other products for elemental analysers. We operate from our purpose-built factory and laboratory complex in Devon, UK. Our original microanalytical laboratory is now known as 'Elemental Lab'.

Elemental Lab recently participated in the IAEA Water Stable Isotope Intercomparison (WICO 2024) along with over 250 other laboratories. Independent proficiency tests are an important tool for laboratories to show evidence of their performance and to ensure that their analytical results can be trusted. All Elemental Lab results were classified as the top category, 'Satisfactory' (other categories included 'Questionable' and 'Unsatisfactory'), allowing users of Elemental's IRMS water standards great confidence in Elemental's measurements.

When you purchase Elemental's standards, you are purchasing the same standards Elemental Lab uses every day in our UKAS 17025 accredited analytical laboratory. All products that Elemental Microanalysis manufactures in-house use our ISO 9001:2015 accredited quality system.



B2240,
Antarctic water
IRMS standard

Click [here](#) to view this product range on our website. For the exact values for any of Elemental's isotopic water standards, please see the relevant certificates of analysis on our website, or contact our customer services team, enquiries@microanalysis.co.uk.



These products offer the same high quality and value for money that is typical of Elemental Microanalysis' entire product range.

To place an order, call us, send an email to enquiries@microanalysis.co.uk, or register to view our product pricing and to purchase online.

Elemental Microanalysis has over 45 years' experience manufacturing and supplying quality products with exceptional service and affordable pricing.



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