AQ-14 Dissolved Organic Carbon in Seawater	
Year: 2024	Participants: 20 laboratories expected
Number of rounds: 2 per year	Start exercise: 1 April, 1 October
Number of materials: 4 per round	Sample size: 250 ml

Participation form | Timetable | PT Scheme | Costs

This study covers the determination of dissolved organic carbon in seawater test materials. The test materials are prepared in bulk, following the well-defined methods of A. Aminot and R. Kerouel (Analytical Chimica Acta 248(1991), pp.277-283 and Marine Chemistry 49(1995) pp.221-232).

Test Materials

Low nutrient seawater (LNSW), collected from the Eastern Atlantic Ocean during the late spring and summer months after the main plankton bloom, is used to prepare the test materials. This seawater is filtered to remove bacteria and particles.

Homogeneity testing is performed on each batch of test materials produced. The test materials are stable for the period of the test and have also been shown to be stable for a period of some months even after opening but used under the correct conditions following the storage instructions.

Determinands and Concentration Ranges

The dissolved organics carbon (DOC) content should be analysed in the distributed glass bottles. The table below also shows:
- The expected concentration range for DOC in the spiked seawater materials.
- The constant and proportional error that will be used for assessment of the results.

Determinand*	Unit	Concentration range	Error	
		Seawater (spiked)	Const	Prop
DOC	mg C/L	0.5-20	0.25	6.0%

*This determinand is in the scope of accreditation.