



## ISO 17294-1

# Water quality — Application of inductively coupled plasma mass spectrometry (ICP-MS) —

## Part 1: General requirements

*Qualité de l'eau — Application de la spectrométrie de masse avec plasma à couplage inductif (ICP-MS) —*

*Partie 1: Exigences générales*

Second edition  
2024-03

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This second edition cancels and replaces the first edition (ISO 17294-1:2004), which has been technically revised.

The main changes are as follows:

- scope has been revised to align with ISO 17294-2;
- text has been revised to reflect currently available instruments used in routine daily practice in many laboratories;
- [Clauses 5](#) and [6](#) have been revised to reflect the state-of-the-art equipment used to measure elements according to ISO 17294-2;
- abbreviated terms in [Clause 9](#) have been revised to align with common terms used in other standards;
- [Table A.1](#) has been updated.

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Since the last edition of this document, new developments in metal analysis with inductively coupled plasma mass spectrometry (ICP-MS) have taken place. The use of the collision or reaction cell (CRC) technology in quadrupole ICP-MS and triple quadrupole ICP-MS has increased in laboratories. For this reason, this document has been revised and new items have been added.

The intention for the revision of this document was to focus on the instrumentation currently available and in use for determining elements according to ISO 17294-2 in daily practice in laboratories. The consequence of this starting point is that the use of correction formulae has been moved to [Annex A](#) because of its reduced importance in modern instrumentation. Many principles also apply for high-resolution or accurate mass instrumentation, although they are not described in detail in this document.