

DIN EN ISO 17294-1

ICS 13.060.50

**Water quality –
Application of inductively coupled plasma mass spectrometry
(ICP-MS) –
Part 1: General guidelines (ISO 17294-1:2004)
English version of DIN EN ISO 17294-1:2007-02**

Wasserbeschaffenheit –
Anwendung der induktiv gekoppelten Plasma-Massenspektrometrie (ICP-MS) –
Teil 1: Allgemeine Anleitung (ISO 17294-1:2004)
Englische Fassung DIN EN ISO 17294-1:2007-02

Document comprises 39 pages



This standard is part of the series *Deutsche Einheitsverfahren zur Wasser-, Abwasser- und Schlammuntersuchung – Kationen (Gruppe E)* (German standard methods for the examination of water, waste water and sludge – Cations (group E)) and describes method E 29.

National foreword

This standard has been published in accordance with a decision taken by CEN/TC 230 to adopt, without alteration, International Standard ISO 17294-1 as a European Standard.

The responsible German body involved in its preparation was the *Normenausschuss Wasserwesen* (Water Practice Standards Committee), Technical Committees NA 119-01-03-01-11 AK *Atomspektrometrische Verfahren und Mineralisierung* and NA 119-01-03 AA *Wasseruntersuchung*.

Expert assistance and specialized laboratories will be required to perform the analysis described in this standard. Existing safety regulations are to be taken into account.

Depending on the objective of the analysis, a check shall be made on a case-by-case basis as to whether and to what extent additional conditions will have to be specified.

ISO 17294 consists of the following parts, under the general title *Water quality — Application of inductively coupled plasma mass spectrometry (ICP-MS)*:

— *Part 1: General guidelines*

— *Part 2: Determination of 62 elements*

This standard contains the corrected version of ISO 17294-1:2004, which incorporates corrections of symbols for instrument detection limit and method detection limit, corrections to equations (1) and (3) and various minor editorial corrections.

Standard methods published as DIN Standards are obtainable from *Beuth Verlag GmbH*, either individually or grouped in volumes. The standard methods included in the loose-leaf publication entitled *Deutsche Einheitsverfahren zur Wasser-, Abwasser- und Schlammuntersuchung* will continue to be published by *Wiley-VCH Verlag* and *Beuth Verlag GmbH*.

All standard methods relevant to the *Abwasserverordnung* (Waste Water Regulation) (*AbwV*) – included in the new Regulation on Section 7a of the *Gesetz zur Ordnung des Wasserhaushalts* (German Water Management Act) – together with the *Abwasserverordnung* and the *Gesetz zur Ordnung des Wasserhaushalts* and other valid administrative regulations on waste water have been published as a loose-leaf compilation “*Analysenverfahren in der Abwasserverordnung – Rechtsvorschriften und Normen*”^{*)}, with Supplement 1 (DIN Standards), Supplement 2 (DIN EN and DIN EN ISO Standards) and Supplement 3 (DIN, DIN EN and DIN EN ISO Standards).

Standard methods or draft standards bearing the group title “German standard methods for the examination of water, waste water and sludge” are classified under the following categories (main titles):

General information (group A)	(DIN 38402)
Sensory analysis (group B)	(DIN 38403)
Physical and physicochemical parameters (group C)	(DIN 38404)
Anions (group D)	(DIN 38405)

^{*)} Available in German.

Cations (group E)	(DIN 38406)
Substance group analysis (group F)	(DIN 38407)
Gaseous constituents (group G)	(DIN 38408)
Parameters characterizing effects and substances (group H)	(DIN 38409)
Biological-ecological methods of analysis (group M)	(DIN 38410)
Microbiological methods (group K)	(DIN 38411)
Test methods using water organisms (group L)	(DIN 38412)
Individual constituents (group P)	(DIN 38413)
Sludge and sediments (group S)	(DIN 38414)
Bio-assays with microorganisms (group T)	(DIN 38415)

In addition to the methods described in the DIN 38402 to DIN 38415 series of standards, there are a number of European and International Standards available as DIN EN, DIN EN ISO and DIN ISO Standards, which also form part of the collection of German standard methods.

Information on Parts of these series of standards that have already been published can be obtained from the offices of the *Normenausschuss Wasserwesen*, telephone +49 30 2601-2448, or from *Beuth Verlag GmbH*, Burggrafenstraße 6, 10787 Berlin.

The DIN Standards corresponding to the International Standards referred to in the EN are as follows:

ISO 3696	DIN ISO 3696
ISO 5725-1	DIN ISO 5725-1
ISO 5725-2	DIN ISO 5725-2

National Annex NA (informative)

Bibliography

DIN ISO 3696, *Water for analytical laboratory use — Specification and test methods*

DIN ISO 5725-1, *Accuracy (trueness and precision) of measurement methods and results — Part 1: General principles and definitions*

DIN ISO 5725-2, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

— This page is intentionally blank —

English Version

Water quality - Application of inductively coupled plasma mass spectrometry (ICP-MS) - Part 1: General guidelines
(ISO 17294-1:2004)

Qualité de l'eau - Application de la spectrométrie de masse avec plasma à couplage inductif (ICP-MS) - Partie 1: Lignes directrices générales (ISO 17294-1:2004)

Wasserbeschaffenheit - Anwendung der induktiv gekoppelten Plasma-Massenspektrometrie (ICP-MS) - Teil 1: Allgemeine Anleitung (ISO 17294-1:2004)

This European Standard was approved by CEN on 11 September 2006.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels