SLOVENSKI STANDARD
SIST EN ISO 14911:2000

01-februar-2000

Določevanje raztopljenih ionov Li+, Na+, NH4+, K+, Mn2+, Ca2+, Mg2+, Sr2+ in Ba2+ z ionsko kromatografijo - Metoda za vodo in odpadno vodo (ISO 14911:1998)

Water quality - Determination of dissolved Li+, Na+, NH4+, K+, Mn2+, Ca2+, Mg2+, Sr2+ and Ba2+ using ion chromatography - Method for water and waste water (ISO 14911:1998)

Wasserbeschaffenheit - Bestimmung der gelösten Kationen Li+, Na+, NH4+, K+, Mn2+, Ca2+, Mg2+, Sr2+ und Ba2+ mittels Ionenchromatographie - Verfahren für Wasser und Abwasser (ISO 14911:1998)

Qualité de l'eau - Dosage par chromatographie ionique, des ions Li+, Na+, NH4+, K+, Mn2+, Ca2+, Mg2+, Sr2+ et Ba2+ dissous - Méthode applicable pour l'eau et les eaux résiduaires (ISO 14911:1998)

Ta slovenski standard je istoveten z: **EN ISO 14911:1999**

ICS:

13.060.50	Preiskava vode na kemične snovi	Examination of water for chemical substances

SIST EN ISO 14911:2000 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 14911

August 1999

ICS 13.060.01

English version

Water quality - Determination of dissolved Li^+, Na^+, NH_4^+, K^+, Mn^{2+}, Ca^{2+}, Mg^{2+}, Sr^{2+} and Ba^{2+} using ion chromatography - Method for water and waste water (ISO 14911:1998)

Qualité de l'eau - Dosage, par chromatographie ionique, des ions Li^+, Na^+, NH_4^+, K^+, Mn^{2+}, Ca^{2+}, Mg^{2+}, Sr^{2+} et Ba^{2+} dissous - Méthode applicable pour l'eau et les eaux résiduaires (ISO 14911:1998)

Wasserbeschaffenheit - Bestimmung der gelösten Kationen Li^+, Na^+, NH_4^+, K^+, Mn^{2+}, Ca^{2+}, Mg^{2+}, Sr^{2+} und Ba^{2+} mittels Ionenchromatographie - Verfahren für Wasser und Abwasser (ISO 14911:1998)

This European Standard was approved by CEN on 7 July 1999.

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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

Foreword

The text of the International Standard from Technical Committee ISO/TC 147 "Water quality" of the International Organization for Standardization (ISO) has been taken over as an European Standard by Technical Committee CEN/TC 230 "Water analysis", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 14911:1998 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

Annex ZA (normative)
Normative references to international publications with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

Publication	Year	Title	EN	Year
ISO 5667-1	1980	Water quality – Sampling – Part 1: Guidance on the design of sampling programmes	EN 25667-1	1993
ISO 5667-2	1991	Water quality – Sampling – Part 2: Guidance on sampling techniques	EN 25667-2	1993
ISO 5667-3	1994	Water quality – Sampling – Part 3: Guidance on the preservation and handling of samples	EN ISO 5667-3	1995

INTERNATIONAL STANDARD

ISO 14911

First edition
1998-10-01

Water quality — Determination of dissolved Li^+, Na^+, NH_4^+, K^+, Mn^{2+}, Ca^{2+}, Mg^{2+}, Sr^{2+} and Ba^{2+} using ion chromatography — Method for water and waste water

Qualité de l'eau — Dosage, par chromatographie ionique, des ions Li^+, Na^+, NH_4^+, K^+, Mn^{2+}, Ca^{2+}, Mg^{2+}, Sr^{2+} et Ba^{2+} dissous — Méthode applicable pour l'eau et les eaux résiduaires

Reference number
ISO 14911:1998(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 14911 was prepared by Technical Committee TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical, biochemical methods.*

Annexes A and B of this International Standard are for information only.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

Introduction

The essential minimum requirements of an ion chromatographic system applied within the scope of this International Standard are given in clause 5.

The diversity of the appropriate and suitable assemblies and the procedural steps depending on them permit a general description only.

Further information on the analytical technique is given in the normative references (see clause 2) and the bibliography.

Water quality — Determination of dissolved Li^+, Na^+, NH_4^+, K^+, Mn^{2+}, Ca^{2+}, Mg^{2+}, Sr^{2+} and Ba^{2+} using ion chromatography — Method for water and waste water

1 Scope

This International Standard specifies a method for the determination of the dissolved cations Li^+, Na^+, NH_4^+, K^+, Mn^{2+}, Ca^{2+}, Mg^{2+}, Sr^{2+} and Ba^{2+} in water (e.g. drinking water, surface water, waste water).

An appropriate pretreatment of the sample (e.g. dilution) and the application of a conductivity detector (CD) make the working ranges given in table 1 feasible.

The applicability of the method for waste water samples should be proved in each case.

Table 1 — Working ranges of the analytical method

Cation	Typical working range with 10 µl loop mg/l[1)]
Lithium	0,01 to 1
Sodium	0,1 to 10
Ammonium	0,1 to 10
Potassium	0,1 to 10
Manganese	0,5 to 50
Calcium	0,5 to 50
Magnesium	0,5 to 50
Strontium	0,5 to 50
Barium	1 to 100

1) The working range is limited by the ion-exchange capacity of the separator column. If necessary, the sample shall be diluted to meet the working range, or use a 100 µl loop for lower working ranges.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.