საქართველოს სტანდარტი

სსკ: 13.060.50

წყლის ხარისხი - ფთორის განსაზღვრა ნაკადის ანალიზის გამოყენებით (FIA და CFA) - ნაწილი 2: უწყვეტი ნაკადის ანალიზი (CFA) ავტომატური დისტილაციის გამოყენების მეთოდით

სსტ ისო/ტს 17951-2:2016/2023

საინფორმაციო მონაცემები

- 1 მიღებულია და დაშვებულია სამოქმედოდ: სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს გენერალური დირექტორის 24/11/2023 წლის № 95 განკარგულებით
- 2 მიღებულია "თავფურცლის" თარგმნის მეთოდით: სტანდარტიზაციის საერთაშორისო ორგანიზაციის (ისო) სტანდარტი ისო/ტს 17951-2:2016 " წყლის ხარისხი ფთორის განსაზღვრა ნაკადის ანალიზის გამოყენებით (FIA და CFA) ნაწილი 2: უწყვეტი ნაკადის ანალიზი (CFA) ავტომატური დისტილაციის გამოყენების მეთოდით"

3 პირველად

4 რეგისტრირებულია: სსიპ-საქართველოს სტანდარტეზისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 24/11/2023 წლის №268-1.3-031649

TECHNICAL SPECIFICATION

ISO/TS 17951-2

First edition 2016-07-01

Water quality — Determination of fluoride using flow analysis (FIA and CFA) —

Part 2:

Method using continuous flow analysis (CFA) with automated in-line distillation

Qualité de l'eau — Dosage des fluorures par analyse en flux (FIA et CFA) —

Partie 2: Méthode par analyse en flux continu (CFA) avec distillation in situ automatique





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Com	tents	Page
Forew	vord	iv
Introd	luction	v
1	Scope	1
2	Normative references	1
3	Principle	
4	Interferences	
5	Reagents	
6	Apparatus	
7	Sampling and sample preparation	
9 10 11	Procedure 8.1 Setting up the system 8.2 Reagent blank measurement 8.3 Adjustment of sensitivity 8.4 Confirmation of repeatability 8.5 Calibration 8.6 Measurement of samples Calculation Expression of results Test report	56667
Annex	x A (informative) Example of continuous flow analysis (CFA) with an in-line distillation unit and spectrometric detection	
Annex	x B (informative) Determination of fluoride by automatic distillation continuous flow analysis (CFA) and ion selective detection	9
Annex	x C (informative) Examples of flow systems	12
Annex	x D (informative) Results of interlaboratory trial	13
Annex	x E (informative) Recovery test for fluoride	14
Annex	x F (informative) Analytical precision of fluoride	15
Biblio	graphy	16

Foreword

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The committee responsible for this document is ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical and biochemical methods*.

ISO 17951 consists of the following parts, under the general title *Water quality — Determination of fluoride using flow analysis (FIA and CFA)*:

- Part 1: Method using flow injection analysis (FIA) and spectrometric detection after off-line distillation
 [Technical Specification]
- Part 2: Method using continuous flow analysis (CFA) with automated in-line distillation [Technical Specification]

Introduction

Fluorine compounds in waters and effluents exist in various chemical forms, such as fluoride ion, complexes of iron, aluminium, boron and etc., as well as insoluble forms, such as calcium and magnesium fluorides. Excess fluoride can cause bone damage and fluorosis. In order to ensure conversion of any insoluble fluorides into soluble fluoride for measurement, steam distillation is necessary.

This part of ISO 17951 describes a CFA method for flow analysis of fluoride with integrated in-line distillation and spectrometric detection.

A CFA method with ion-selective detection is described in Annex B.