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DRAFT TANZANIA STANDARD

Water quality — Determination of orthophosphate and total phosphorus contents by flow analysis (FIA and CFA) — Part 2: Method by continuous flow analysis (CFA)

Draft for public comments only

TANZANIA BUREAU OF STANDARDS

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Water quality — Determination of orthophosphate and total phosphorus contents by flow analysis (FIA and CFA) — Part 2: Method by continuous flow analysis (CFA)

National foreword

This draft Tanzania Standard is identical to *ISO 15681-2:2018 Water quality — Determination of orthophosphate and total phosphorus contents by flow analysis (FIA and CFA) — Part 2: Method by continuous flow analysis (CFA),* published by the International Organization for Standardization (ISO).

Terminologies and conventions

Some terminologies and certain conventions are not identical with those used as Tanzania standards; attention is drawn to the following:

The comma has been used as a decimal marker for metric dimensions. In Tanzania, it is current practice to use a full point on the base line as the decimal marker.

Wherever the words “International Standard” appear, referring to this draft standard, they should read as “Tanzania Standard”.

Scope

This document specifies continuous flow analysis (CFA) methods for the determination of orthophosphate in the mass concentration range from 0,01 mg/l to 1,00 mg/l P, and total phosphorus in the mass concentration range from 0,10 mg/l to 10,0 mg/l P. The method includes the digestion of organic phosphorus compounds and the hydrolysis of inorganic polyphosphate compounds, performed either manually, as described in ISO 6878 and in References [4], [5] and [7], or with an integrated ultraviolet (UV) digestion and hydrolysis unit.

This document is applicable to various types of water, such as ground, drinking, surface, leachate and waste water. The range of application can be changed by varying the operating conditions.

This method is also applicable to the analysis of seawater, but with changes in sensitivity by adapting the carrier and calibration solutions to the salinity of the samples.

It is also applicable to analysis using 10 mm to 50 mm cuvettes depending on the desired range. For extreme sensitivity, 250 mm and 500 mm long way capillary flow cells (LCFCs) can be used. However, the method is not validated for these two uses. Changes in sensitivity and calibration solutions could be required.

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