

Press Release: Water analysis: bromate round robin test confirms superiority of the triiodide method

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Bromate is a potential carcinogen and is generated by the oxidation of bromide traces during water disinfection by ozonization. A recently conducted round robin test has confirmed ion chromatography followed by post column reaction and ultraviolet detection to be a superior method of detection. Moreover, this method (draft ISO/DIS 11206) compares favourably with the former standard method (ISO 15061), achieving higher precision and lower deviation to the reference values, for identical test matrices.



The existing standard method (ISO 15061:2001) is based on ion chromatography using suppressed conductivity detection for the determination of bromate concentrations equal or larger than $0.5 \mu\text{g L}^{-1}$ whereas the new method the determination of bromate concentrations equal or larger than $0.08 \mu\text{g L}^{-1}$. Furthermore, the new method aims to minimize any potential interference of chlorite ions.

All method performance characteristics obtained in the frame of the round robin test (16 laboratories in 9 different countries) indicate that the draft ISO/DIS 11206 standard method meets the requirement set down by the EC's Drinking Water Directive, DWD.

Metrohm is pleased to offer ideal IC equipment for implementing the new standard method in the lab. The straightforward setup using the [887 Professional UV/VIS Detector](#) and the [886 Professional Reactor](#) requires neither suppression nor special sample preparation techniques. Water samples are analyzed using a high-capacity column with a dilute sulfuric acid/ammonium molybdate tetrahydrate eluent and a potassium iodide solution as post-column reagent. With minor modifications, other oxyhalides (BrO_3^- , IO_3^- , ClO_2^-), nitrite or typical drinking water matrix anions (Cl^- , NO_3^- , SO_4^{2-} etc.) can be reliably and accurately detected in a single run.

For more information on this press release please contact the Marketing Department at Metrohm UK Ltd.

Helen Davey - Marketing Manager

Metrohm UK Ltd

Direct Tel: 01928 532 386. Gen Tel. 01928 579600

Fax: 01928 532371

Mobile: 07773 023 766

Note to Editors:

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