DATA BULLETIN

elementar
EXCELLENCE IN ELEMENTS

*TOC analysis of drinking water with the **acquray**® TOC*

The total organic carbon (TOC) content is one of the standard parameters which is routinely determined in drinking water. The acquray TOC is designed for this task and operates according to the international standard ISO 8245 on "Water quality – Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC)".

Due to the unfavorable TOC:TIC ratio (TOC << TIC) in drinking water, the standard procedure for the analysis of TOC in drinking water is the direct mode, which means the determination of NPOC after removing the TIC by acidification and sparging.

Drinking water samples were collected from cities and villages in the neighborhood of the Elementar Headquarters and were each analyzed six times. The samples were acidified externally with phosphoric acid in order to remove the TIC from the samples (direct mode).

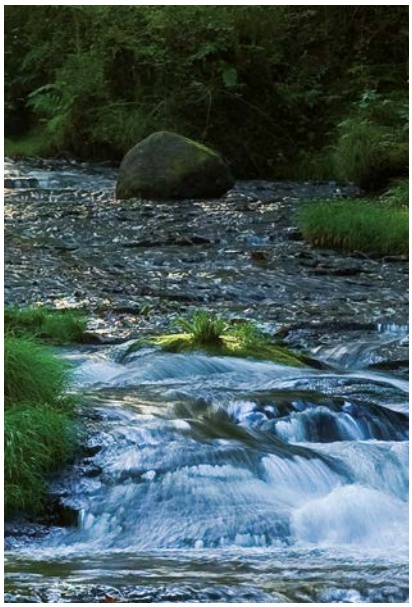
ORIGIN OF THE DRINKING WATER	TOC [mg/l]	SD [mg/l]
Langenselbold	0.442	0.024
Mainz	1.208	0.027
Frankfurt/Main	0.408	0.018
Bad Langensalza	0.297	0.015
Seligenstadt	0.645	0.012
well water	1.756	0.038

The relatively low TOC content of all drinking water samples could be determined with a very high precision.

The **acquray** TOC cube is a perfect instrument for the analysis of TOC in drinking water and fulfills the requirements of the international standard ISO 8245 on "Water quality – Guidelines for the determination of total organic carbon (TOC) and dissolved organic carbon (DOC)".

INSTRUMENT:
acquray® TOC

DETAILS:
carrier gas: nitrogen
sample: 40 ml drinking water



STANDARD:
ISO 8245

Elementar Analysensysteme GmbH
Elementar-Straße 1
63505 Langenselbold (Germany)
Phone: +49 (0) 6184 9393-0
info@elementar.com | www.elementar.com

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