



946 Portable VA Analyzer

Heavy metal analysis goes mobile

HIGHLIGHTS

- Ready to measure in minutes, anywhere
- Battery powered
- Straightforward to use

Rapid on-site monitoring of heavy metals in ground, surface, and drinking water

Safeguarding the quality of water for human consumption involves monitoring trace level concentrations of heavy metals. Such measurements have been routinely performed in the laboratory – mostly for lack of viable alternatives for field use.

The table below shows, which heavy metals can be determined using the 946 Portable VA Analyzer. Maximum concentrations currently recommended by the World Health Organization’s (WHO) «Guidelines for Drinking-water Quality» are also given.

Analyte	WHO limit concentrations	Limit of detection
Antimony	20 µg/L	1 µg/L
Arsenic	10 µg/L	1 µg/L
Bismuth	–	1 µg/L
Cadmium	3 µg/L	0.3 µg/L
Chromium	50 µg/L	2 µg/L
Cobalt	–	1 µg/L
Copper	2000 µg/L	0.5 µg/L
Iron	–	10 µg/L
Lead	10 µg/L	0.2 µg/L
Mercury	6 µg/L	0.5 µg/L
Nickel	70 µg/L	1 µg/L
Selenium	10 µg/L	2 µg/L
Tellurium	–	1.5 µg/L
Thallium	–	10 µg/L
Zinc	–	5 µg/L

Affordable, maintenance-free sensors with plug-in design

Two options
You can determine the mentioned heavy metals either on the scTRACE Gold sensor or screen-printed electrodes (SPEs), some of them can be determined on both sensors. DropSens SPEs are highly affordable and are available in various materials, depending on your application.

The scTRACE Gold sensor, on the other hand, offers a wider range of applications and features a longer working life. Both sensors are maintenance-free, and can be easily exchanged due to smart plug-in design.



BRING THE LABORATORY TO THE SAMPLE!

With the 946 Portable VA Analyzer from Metrohm, there is now instrument for field use. A dedicated solution for water analysis, the 946 Portable VA Analyzer enables fast and straightforward in-field determination of heavy metals typically determined in water with the sensitivity, accuracy, and reproducibility required to monitor the WHO guideline values.

STRAIGHTFORWARD SPECIATION ANALYSIS POSSIBLE

Voltammetric trace analysis allows you to perform speciation analysis, i. e., discriminate between different oxidation states of the same element. Competing methods such as IC-ICP/MS are much more expensive and require a laboratory.

- THE 946 PORTABLE VA ANALYZER IS ...**
- **ready to measure in minutes, anywhere** – portable carrying case complete with instrument, measuring stand, accessories, and bottles.
 - **battery powered** – no access to power grid required!
 - **straightforward to use** – simply start predefined methods and get the results shown a few minutes later.

ORDERING INFORMATION

Instruments	
2.946.0010	946 Portable VA Analyzer for use with scTRACE Gold
2.946.0020	946 Portable VA Analyzer for use with SPE
Optional	
6.01256.010	Measuring head for use with scTRACE Gold 2.946.0010
6.01256.020	Measuring head for use with SPE 2.946.0020

The additional measuring head (for SPE or scTRACE Gold) is required, if both types of electrodes are to be used with the instrument. The carrying case offers space for a second measuring head.

