

Continuous Analysis. Reliable Results.



COMPOSER Wilhelm Kienzl - SEIBOLD Online-Analyser for Arsenic

Sources

Arsenic is found in the atmosphere, in water, soils, sediments and organisms due to releasing by various industrial processes, mining or smelting and agricultural activities as well as a by product of coal combustion.

Natural sources. Arsenic is found in more than 245 minerals.

Anthropogenic sources. Main sources of arsenic are copper and lead ores. *Industry.* Arsenic is used as an additive in special alloys, in microelectronics and semiconductor industry, as a decolorizing agent in the glass and ceramics industries.

Arsenic in water. Arsenic is found in groundwater as a result of the strong influence of water-rock interactions. Usual groundwater concentrations range from 0.5 to $10 \mu g/L$.

Drinking water. The current WHO provisional level of As in drinking water for the European Union is $10 \mu g/L$, and the current level in the United States is $50 \mu g/L$.

Method

Metal is measured as chelate complex between metal ions in the waste water and sensitive spectrophotometric reagent dye. Change of the intensity of the visible light throughout cuvette containing formed metal complex is directly proportional to metal concentration.



Why Seibold Composer?

- Robust design.
- Minimal maintenance.
- Easy handling.
- High accuracy and precision.
- Suitable for mission critical applications.
- Automated cleaning and calibration.

System information	
Measurement variable	Arsenic (As)
Measurement application	Drinking water, river monitoring, electroplating
	and semiconducting industry,
Measurement ranges	1-100ppb
	other ranges possible upon request
Accuracy and Precision	± 3 % (based on full scale)
Resolution	0.5ppb
Calibration and cleaning	automated
Seibold Reagent kit	Buffer, Conditioner and Dye
	Provided by Sigma Aldrich





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MEASUREMENT INFORMATION

Measurement method

Spectrophotometric (LED, detector)

Measurement interval

Continuous; Discontinuous (programmable, external start)

Sample and Reagents consumption per measurement

Sample: ~ 75 - 200 ml

Seibold Buffer and Reagent: ~ 3 ml

ENVIRONMENTAL DATA

Ambient operating temperature, sample temperature: 5 to 40°C

Ambient operating humidity: Up to 95 % RH non-condensing (bellow the condensation limit)

ELECTRICAL DATA

Power supply

Supply voltage: 220 ... 230 V AC, 50...60 Hz (110 V AC or 24 V DC, optional)

Power consumption: approx 50 VA

Output signal: 4...20 mA

Screen

Color, TFT, liquid crystal display (LCD) with built-in backlight and brightness adjustment.

MAINTENANCE

Maintenance interval: 3 months

