

Water Quality Parameters NO₂- Nitrite

NO₂- Online Analyzer

Blue Unit NO₂- by instran®

Method Colorimetric

After adding the sample into the measurement cell, some reagents are added in order to adjust the solution to the desired conditions (pH, valence's elements, etc). then, a blank is done to correct any temperature or turbidity disturbance. Subsequently, a last reagent is added, and it reacts with solution developing a colour, which is measured using a correct wavelength. Thanks to the photometer used, the result achieves a great accuracy.

Principle of measurement

The method is based upon the diazotization reaction of the nitrous acid, formed from nitrite ions, with the sulphanilamide to form a brightly coloured diazo dye.

Advantages of the method

The method is specific for measurement of nitrite ion as the nitrous acid has to be formed to achieve the diazotization reaction. The reaction is extremely sensitive, and a fairly high absorbance is obtained to 100ppb which is often the legal limit of nitrite in drinking water.

Specifications

Range: from 0 to 100ppm / 500ppm. Adjusted to higher concentration

Accuracy: $\pm 2\%$

Repeatability: $\pm 2\%$

Resolution: 0,1 ppb

Analysis time: around 15 minutes

Calibration: two points

LED Wavelength: 550nm

Reagents consumption

- Reagent 1: 0,5ml / analysis – 0,5L / month
- Reagent 2: 0,5ml / analysis – 0,5L / month

Monthly consumption calculated assuming 1 analysis per hour.

