



Nitrite (NO₂-)

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 color, wich 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 the nitrite ions, with the sulfanilamide to form a brightly colored diazo dye.

Advantages of the method

The method is specific for the 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 for 100 ppb which is often the legal limit of nitrite in drinking water.

Specifications

Range: From 0 to 100 ppb / 500 ppb.

Adjustable higher concentrations with internal dilution.

Accuracy: $\pm 2\%$

Repeatability: $\pm 2\%$

Resolution: 0,1 ppb

Analysis time: around 15 minutes

Calibration: two point

LED Wavelength: 550 nm

Reagents consumption

- Reagent 1: 0.5 ml / analysis — 0.5L / month

- Reagent 2: 0.5 ml / analysis — 0.5L / month

Monthly consumption calculated assuming 1 analysis per hour.

Applications

- Fish farming

- Waste Water Treatment Plants (WWTP)

- Food and Beverage

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Nitrite (NO₂-)

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