Alkalinity (Alk)

Method - Titration

After adding the reagents to establish the desirable conditions to the sample, the volume of titrant is charged. Thanks to the module syringe driver minimum dose (0.015 ml), the accuracy achieved is really high, with 3 drops differences as much between 2 consecutives analysis of the same standard. Moreover, the software has been improved to speed up the initial dose, whereas when the inflection point is close, the titrant is added slowly, to achieve precision.

Principle of measurement

The sample is titrated with hydrochloric acid to a colorimetric end point corresponding to a specific pH. Phenolphthalein alkalinity is determined by titration to a pH of 8.3, as evidenced by the color change of phenolphthalein indicator, and indicates the total hydroxide and one half the carbonate present.

Advantages of the method

The method is specific for alkalinity, and thanks to the accuracy of the system of Instran the repeatability achieved is really high.

Specifications

Range: From 0 to 100 ppm / 250 ppm / 500 ppm / 1000ppm. Adjustable to lower/higher concentrations
Accuracy: ±2% FS
Repeatability: ±2% FS
Reproducibility: ±2% FS
Detection limit: Due to titration chemisty technique, the limit detection depends on the FS. It is 0.0075 * FS
Analysis time: around 20 minutes
Calibration: one point
LED Wavelength: 625 nm

Applications

- Potable Water Treatment Plants (PWTP)
- Waste Water Treatment Plants (WWTP)
- Fish farming
- Chlor-Alkali Industry
- Desalination Plants
- Food and Beverage

And more...

Reagents consumption

- Reagent 1: 1 ml / analysis — 0.75 L / month
- Reagent 2: 4 ml / analysis — 3.0 L / month

Monthly consumption calculated assuming 1 analysis per hour.

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