Sodium (Na)

Method - ISE

The standard known addition (SKA) technique is used to perform the analysis. During the process, two readings are done. The difference between both and the slope found during calibration are used to calculate the concentration. Possible changes on the matrix sample are corrected due to this both lectures, as the reference to calculate the result is the relative difference of mV and not the absolute values. This avoids external interferences.

Principle of measurement

The sample is adjusted to pH between 8 to 11 thanks to Ion strength Adjustor (ISA). After that, a first measurement is done. Subsequently, a small volume of a high concentrated sodium solution is added. Finally, a second lecture of mV is done to calculate the result.

Advantages of the method

The rapidly responde of the elctrode enables to perform a rapid analysis. The main cations that cause interferences are absent or significant low. Even this, ISA solution prevents these interferences.

Interferences

Lithium, Potassium, Rubidium, Ammonia, Silver, Thallium

Specifications

Range: From 0 to 500 ppb /5 ppm/ 20 ppm / 50 ppm Adjustable
higher concentration with internal dilution
Accuracy: ±2%
Repeatability: ±2%
Resolution: 0,01 ppm or 0.1 ppm
Analysis time: around 10 minutes
Calibration: one point
ISE: Sodium Na+ electrode

Reagents consumption

- Reagent 1: 1 ml / analysis — 1 L / month
- Reagent 2: 1 ml / analysis — 1 L / month

Monthly consumption calculated assuming 1 analysis per hour.

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www.instran.net

Instru office
c/ Penedés, 46
08820 El Prat de Llobregat
Barcelona • Tel.+34 934 787 161
instran@instran.net
c.salinas@instran.net

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Sodium (Na)

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