

Overview The concentration of sodium was determined by a Thermo technique called KAP Analysis. Aliquots of sodium standard are added automatically to a sample containing an Orion sodium electrode. The Orion 960 Titrator PLUS calibrates the electrode and calculates the concentration.

Industry Food and Beverage

Species Measured Sodium

Sample Grape Juice

Sample Size 50 mL

Typical Concentration 8-664 ppm

Technique # 2 Multiple Known Addition

Electrode Ross Sure-Flow sodium electrode 8611BN

Solutions Sodium ISA (cat# 841111), Electrode filling solution (cat# 900010), Sodium 1M KAP Analysis solution (cat# 650700).

Sample Prep Pipette 50 mL sample and add 5 mL of sodium ionic strength adjuster into an analysis beaker. Sample is now ready for analysis. For more concentrated solutions: pipette 50 mL of sample into a 500 mL volumetric flask and fill to mark with deionized water. Pipette 50 mL of diluted solution and add 5 mL of sodium ISA.

Statistics

# of Trials	2	Mean	8.985 ppm	%CV
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Analysis Time

Comments Rinse the electrodes, stirrer, and dispenser probe thoroughly between measurements with deionized water.