

Determination of Inorganic Cations and Ammonium in Environmental Waters Using a Compact Ion Chromatography System

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Key Words

Integrion, IonPac CS16, EGC 500, Suppressed Conductivity, Reagent-Free Ion Chromatography, Alkali Earth Cations, Alkaline Earth Cations, Wastewater

Introduction

This application proof note shows a determination of dissolved alkali and alkaline earth cations and ammonium in municipal wastewater with the method published in Application Note 141.¹ The method is performed using a Thermo Scientific™ Dionex™ Integrion™ Ion Chromatography system in combination with a Thermo Scientific™ Dionex™ IonPac™ CS16 cation-exchange column, an electrolytically generated methanesulfonic acid (MSA) eluent, and suppressed conductivity detection.

Method

IC System:	Thermo Scientific Dionex Integrion IC system
Columns:	Thermo Scientific Dionex IonPac CS16 Analytical (5 × 250 mm) Thermo Scientific Dionex IonPac CG16 Guard (5 × 50 mm)
Eluent:	26 mM MSA
Flow Rate:	1.5 mL/min
Injection Volume:	10 µL
Temperature:	30 °C
Detection:	Suppressed conductivity, Thermo Scientific™ Dionex™ CERS™ 500 Electrolytically Regenerated Suppressor, 4 mm, 115 mA, recycle mode

Reference

1. Thermo Scientific Application Note 141: Determination of Inorganic Cations and Ammonium in Environmental Waters by Ion Chromatography Using the Dionex IonPac CS16 Column. Sunnyvale, CA [Online] <http://www.thermoscientific.com/content/dam/tfs/ATG/CMD/cmd-documents/sci-res/app/chrom/ic/col/AN-141-IC-Inorganic-Cations-Ammonium-Waters-IonPac-CS16-AN71549-EN.pdf> (accessed Jan. 14, 2016)

For application support, visit the [AppsLab Library](http://www.thermoscientific.com/appslib) where you can find detailed method information, chromatograms and related compound information. All the information needed to run, process and report the analysis is available in ready-to-use eWorkflows, which can be executed directly in your chromatography data system. www.thermoscientific.com/appslib

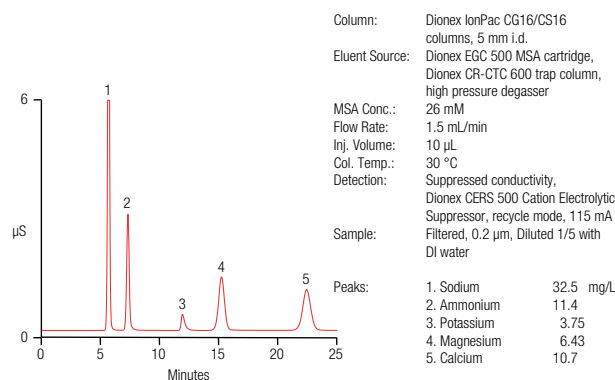


Figure 1. Determination of cations in municipal wastewater.

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