

# Thermo Scientific AppsLab Library of Analytical Applications

## Find Your Chromatography Application

### Product Spotlight

The Thermo Scientific™ AppsLab Library of Analytical Applications is a web-portal which gives you access to our comprehensive chromatography application expertise. It's a free of charge online repository that allows you to access the entire breadth of Thermo Scientific applications and which is constantly updated with newly released applications. Whether you need to implement validated methods or optimize your separation, whether you use Thermo Scientific™ Dionex™ Chromeleon™ Chromatography Data System or not, the AppsLab Library makes our global application expertise accessible to you – online and downloadable.

### Cross-technique application expertise in a single online location



The AppsLab Library increases productivity by letting you access LC, IC, GC, LC-MS, and GC-MS application notes in one location and providing download of one-click workflows, immediately ready to run with Chromeleon CDS.

Start using today at [www.thermoscientific.com/appslab](http://www.thermoscientific.com/appslab).

# Thermo Scientific AppsLab Library of Analytical Applications

## Find Your Chromatography Application

**Find a Method**

**Find Methods For Your Needs**

SEARCH

Instrument Type: - Choose an Instrument Type -

Market: - Choose a Market -

**Improved separation of alkyl quaternary amines by HPLC with conductivity detection**  
Instrument Type: HPLC

**Improved analysis of laureth sulfate and coco-amidopropyl betaine in shampoos by HPLC-CAD**  
Instrument Type: HPLC-CAD

**Detailed profiles of two laundry detergents by HPLC-CAD**  
Instrument Type: HPLC-CAD

The overview page is the starting point of the AppsLab Library and provides direct access to:

- (A) Google type search that allows you to find an application. Simply enter a keyword, or search by specifying instrument type or market.
- (B) The three most recently added applications.

Click the application title or image and immediately review the application.

Items per page: 5 Page 1 of 2

**AN 149: Determination of Chlorite, Bromate, Bromide, and Chlorate in Drinking Water by Ion Chromatography with an On-Line-Generated Postcolumn Reagent.**  
Instrument Type: IC  
This application note describes an improved ion chromatography (IC) method to quantify oxyhalide DBP anions and bromate at low concentration levels in reagent water, bottled water, and finished drinking water using an approach that is technically equivalent to U.S. EPA Method 305.0. The oxyhalide anions chlorite, chlorate, bromate, and bromate are separated on a Thermo Scientific Dioxer IonPac AS9-HC column and measured by using suppressed conductivity detection (as in EPA Method 302.1), followed by postcolumn reaction (PCR) to enhance detection of bromate.

**AN 154: Determination of Inorganic Anions in Environmental Waters Using a Hydroxide-Selective Column**  
Instrument Type: IC  
In this application, we describe the use of automated eluent generation, combined with a high-capacity, hydroxide-selective, anion-exchange column—the Thermo Scientific Dioxer IonPac AS18—for the determination of inorganic anions in environmental waters. The hydroxide-selective Dioxer IonPac AS18 column is a superior alternative to the Thermo Scientific Dioxer IonPac AS9-HC column using carbonate eluent, which is described in EPA Method 302.1.

**AN198: Improved Determination of Trace Concentrations of Oxyhalides and Bromide in Drinking Water Using a Hydroxide-Selective Column**  
Instrument Type: IC  
This study demonstrates the Thermo Scientific Dioxer IonPac AS27 anion-exchange column for determination of trace concentrations of chlorite, bromate, chlorate, and bromide in drinking water samples. The Dioxer IonPac AS27 offers several key advantages over the Dioxer AS18 column, including the ability to determine trace bromate in the presence of the SDA preservative, good resolution of dichloroacetate (DCA, a surrogate anion) from potentially interfering matrix anions, and improved resolution between bromate and chlorate.

**Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1**  
Instrument Type: IC  
Determination of oxyhalides and bromide in drinking water samples using EPA Method 300.1 on a Thermo Scientific Dioxer IC-6000 Reagent-Free Ion Chromatography (RFIC) system. The anions were separated with a Thermo Scientific Dioxer IonPac AS27 anion-exchange column using an electrolytically generated gradient KOH eluent.

**Municipal Wastewater Analysis According to EPA Method 300.1**  
Instrument Type: IC  
Anion determinations in municipal waste water samples using EPA Method 300.1 on an integrated IC system with a Thermo Scientific Dioxer IonPac AS22 anion-exchange column to separate and quantify inorganic anions with manually-prepared carbonate/bicarbonate eluents on a Thermo Scientific Dioxer ICS-1100 or a Thermo Scientific Dioxer ICS-1000 IC system. This method provides an economical way to meet EPA Method 300.1 (A) regulatory testing requirements.

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Searching retrieves a list with all applications matching the search parameters. To review any application for more detail, click the application title or image.

# Thermo Scientific AppsLab Library of Analytical Applications

## Find Your Chromatography Application

**Refine by Feature:**

**Has eWorkflow:**

Yes

No

**Matrix:**

Drinking water

Drinking Water (Spiked)

Environmental Waters

municipal wastewater

Water

**Column Manufacturer:**

Thermo Scientific Dionex

Thermo Scientific

**Column Model:**

Dionex IonPac AG27

IonPac AG10-4µm

IonPac AG22

IonPac AG8-HC

IonPac A522

More...

**Column Length:**

From  to

**Apply**

**Column Diameter:**

From  to

**Apply**

**Column Particle Size/Film Thickness:**

From  to

**Apply**

**Column Stationary Phase:**

55% DVB with Alkanol quaternary ammonium function

Alkanol quaternary ammonium ion

Anion Exchanger

Microporous, latex

super macroporous resin

More...

**Run Time:**

From  to

**Apply**

**Date Added:**

From  to

**Apply**

**Compound Name:**

Bromate

Bromide

Chlorate

Chlorite

Chloride

More...

**Compound Class:**

Inorganic Anion

Oxyniate

Sulfogate

Organic Acid

Organic Anion

Fine tune your application search. Filter application search results, for example on a compound name or the availability of an eWorkflow, to narrow down the list of applications.

### Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1

Download
Print PDF

CD\_1
UNZOOM

Overview | Method | System | Downloads

Determination of oxyhalides and bromide in drinking water samples using EPA method 300.1 on a Thermo Scientific Dionex IC-5000 Reagent-Free Ion Chromatography (RFIC) system. The anions were separated with a Thermo Scientific Dionex IonPac AG27 anion-exchange column using an electrolytically generated gradient KOH eluent.

Component Number	Component Name	Compound Class	Retention Time (min)
1	Chlorite	Oxyhalide	8.90
2	Bromate	Oxyhalide	9.70
3	OCA	Sulfogate	13.90
4	Chlorate	Oxyhalide	16.70
5	Bromide	Inorganic Anion	18.50

Market: Environmental  
 Keywords: Bromate, Bromide, Chlorate, Chlorite, Dionex IonPac AG27, Disinfection Byproduct, drinking water, Environmental, EPA method 300.1 (B), Ion Chromatography, Ion Chromatography (IC), Water analysis  
 Matrix: Drinking Water (Spiked)

Uploaded on 12/22/2014.

The application view gives you instant access to complete information about the selected application. In addition, just one click allows you to directly download Chromeleon eWorkflows for immediate execution of the application in Chromeleon CDS. All application details can be viewed in the different tabs at the bottom of the application view and printed into an Adobe® Acrobat® PDF document.

# Thermo Scientific AppsLab Library of Analytical Applications

## Find Your Chromatography Application

Overview Method System Downloads

**Instrument**

Instrument Type	IC
Manufacturer	Thermo Scientific
System	Dionex IC1-5000
IC Pump Model	IC1-5000 DB
Autosampler Model	AS-48
Column & Detector	
Component Model	DC
Detector Type	CS

**Columns**

Manufacturer	Thermo Scientific Dionex
Model	Dionex IonPac AG27
Diameter	4 mm
Length	50 mm
Particle Size	5.5 µm
Packing Material	Anion Exchanger
Part Number	080470
Url	More

  

Manufacturer	Thermo Scientific Dionex
Model	IonPac AG27
Diameter	4 mm
Length	250 mm
Particle Size	5.5 µm
Packing Material	Anion Exchanger
Part Number	080477
Url	More

**Consumables** CREATE PARTS LIST

Name	DGC 500 xOm Eluent Generator Cartridge
Manufacturer	Thermo Scientific Dionex
Type	Electrolytic Device
Grade	n.s.
Purity	n.s.
Part Number	079778
Description	Hydride DGC Eluent Generator Cartridges for Anion Analysis
Url	More

  

Name	ATR5 500 (4 mm)
Manufacturer	Thermo Scientific Dionex
Type	Electrolytic Device
Grade	n.s.
Purity	n.s.
Part Number	081540
Description	ATR5 500 Anion Electrolytically Regenerated Suppressor
Url	More

  

Name	CR-ATC 500
Manufacturer	Thermo Scientific Dionex
Type	Electrolytic Device
Grade	n.s.
Purity	n.s.
Part Number	079830
Description	CR-ATC Continuously Regenerated Anion Trap Column
Url	More

The system section lists all hardware, columns and consumables used for this application. Easily create a list of part numbers for columns and consumables.

Overview Method System Downloads

<b>AS27 - EPA Method 300.1 Templates.evfx</b> eWorkflow EPA 300.1 on Thermo Scientific Dionex IonPac AG27	1591 KB	<a href="#">DOWNLOAD</a>
<b>EPA300_1.pdf</b> EPA method 300.1	407 KB	<a href="#">DOWNLOAD</a>
<b>AU 198 - IC - Oxhalides - Bromide - Drinking - Water.pdf</b> Application Update 198	1375 KB	<a href="#">DOWNLOAD</a>

**Web Links**  
No information available

Directly download files related to the application, for example ready to run Chromeleon eWorkflows, application note PDF files or descriptions of regulatory methods.

Learn more at [www.thermoscientific.com/appslab](http://www.thermoscientific.com/appslab)

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