



# Introducing AppsLab Library

Methods, Workflows and More

The world leader in serving science

# Agenda

- Introduction
- AppsLab Library Overview
- From Web to Lab – One-click workflow concept
- Interact and Share
- Summary

# Typical Questions in Method Development

How can I make my method more environmentally friendly?

How can I develop a new method to separate X and Y?

I could do this separation using an IC. Are there other ways to achieve this?

How can I make my method faster?

How can I make my method more cost - efficient?



## **Situation:**

- Increasing need for state-of-the-art, faster, more efficient resolution of analytical separation challenges
- Numerous websites with column information, but very few providing complete application data and methods
- Method transfer from the web to the laboratory typically requires adaptations.
- Thermo Fisher Scientific publishes dozens of application notes per week, resulting in 1000's every year
- Application notes contain a lot of valuable information for method development

## **Problem:**

- No central searchable online repository for application material

## **Solution:**

- On-line application search engine with ready-to-run analytical methods:  
Thermo Scientific™ AppsLab Library of Analytical Applications



- ... is an online search engine for Thermo Scientific applications
- ... provides comprehensive application information and ready-to-run analytical methods
- ... is a central repository for Thermo Scientific chromatography and MS application information

# AppsLab Library Overview



**AppsLab Library**  
methods, workflows and more



# AppsLab Library Entry Page – Google Type Search

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**AppsLab Library**

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Welcome to the Thermo Scientific  
AppsLab Library of Analytical Applications!

Find methods for your needs

enter compound, matrix or instrument type

find a method

download  
1-click workflow

run, process,  
report

**AppsLab Library: Find your Methods, eWorkflows and more**

The AppsLab Library of Analytical Applications is a fully searchable online, analytical method repository where you can find applications with detailed method information, chromatograms and related compound information.

Discover the latest applications from Thermo Fisher Scientific for LC, IC, GC, GC-MS and LC-MS instruments. Search by compound, column, instrument or any other method parameter and view key method parameters.

Download one-click eWorkflows, created and tested by Thermo Fisher Scientific application scientists, which can be directly executed in your chromatography data system.

All the information needed to run, process and report the analysis is available in ready-to-use eWorkflows.

**What happens inside makes it safe outside**

The Thermo Scientific™ Dionex™ Integrion™ HPIC™ system was designed to fit with the flow of your laboratory so that it quickly falls in sync with your processes.

- Whole-system smart monitoring
- Logical, flow-based plumbing layout
- Detachable tablet with IC controls in local language

[Learn more: Integrion applications and Chromeleon eWorkflows](#)

**Latest Methods**

**AU176: Preparation of Peptide N-Glycosidase F Digests for HPAE-PAD Analysis**  
Instrument Type: IC

**AN71: Determination of Polyphosphates Using Ion Chromatography with Suppressed Conductivity Detection**  
Instrument Type: IC

**AU 175: Determination of Organic Acids and Inorganic Anions in Lithium-Containing Boric Acid-Treated Nuclear Power Plant Waters**  
Instrument Type: IC


**AN 86: Determination of Trace Cations in Power Plant Waters Containing Morpholine (Method 2)**  
Instrument Type: IC


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Instant access to most  
recently added applications

# Cross-Technique Search Results

  
Add to Favorites

  
Suggest an Application

Find methods for your needs

 amino acid

Refine by Feature

Instrument Type

☐ GC

☐ HPLC

☐ HPLC (Biocompatible)

☐ HPLC-CAD

☐ IC

☐ LCMS

Market

Has eWorkflow

☐ Yes

☐ No

Matrix

Run Time Length

Compound

Column

Date Added

Displaying 1-5 of 33 results for "amino acid"

Items per page: 5

Sort by Date Added

Descending

1 2 3 4 5 6 ...



**AN1130: HPAE-FLD Method for Separation of 2-Aminobenzamide (2-AB)-Labeled Oligosaccharides from Human  $\alpha$ 1 Acid-Glycoprotein and Bovine Fetuin (Part B- Modified Elution)**

Instrument Type: IC

Here, oligosaccharides released from two glycoproteins are labeled with a fluorophore followed by their purification and HPAE-FLD analysis. Two different methods for purification of the labeled oligosaccharides from unbound labeling reagent were tested along with two elution conditions. The data show that the variations tested here do not significantly affect the retention time profiles and that the method described here is suitable for routine profiling of oligosaccharides released from glycoproteins. (The attached chromatogram is from AB-labeled human  $\alpha$ 1 acid-glycoprotein oligosaccharides).



**AN1130: HPAE-FLD Method for Separation of 2-Aminobenzamide (2-AB)-Labeled Oligosaccharides from Human  $\alpha$ 1 Acid-Glycoprotein and Bovine Fetuin (Part A-Unmodified Elution).**

Instrument Type: IC

Here, oligosaccharides released from two glycoproteins are labeled with a fluorophore followed by their purification and HPAE-FLD analysis. Two different methods for purification of the labeled oligosaccharides from unbound labeling reagent were tested along with two elution conditions. The data show that the variations tested here do not significantly affect the retention time profiles and that the method described here is suitable for routine profiling of oligosaccharides released from glycoproteins. (The attached chromatogram is from AB-labeled human  $\alpha$ 1 acid-glycoprotein oligosaccharides).



**2D Analysis of Protein Therapeutics and Amino Acid Excipients**

Instrument Type: HPLC-CAD

Therapeutic proteins (antibodies and vaccines) vary considerably due to the nature and dose of the protein molecule. Aggregation is a major degradation pathway of protein therapeutics during storage. Stabilization of these protein formulations can be enhanced through the addition of specific excipients such as surfactants, amino acids and sugars. The separation of therapeutic protein and amino acid excipients was performed using a 2D approach. An integrated UHPLC system with a UV and universal charged aerosol detection offering multi-mode detection for the simultaneous analysis of both non-chr



# Filtering Results to Focus

Find methods for your needs

chlorate

Refine by Feature

- Instrument Type
  - ☐ IC
  - ☐ ICMS
- Market
- Has eWorkflow
  - ☐ Yes
  - ☐ No
- Matrix
- Run Time Length
- Compound
- Column
- Date Added

Displaying 1-5 of 35 results for "chlorate"

Sort by Date Added Descending

Items per page: 5

1 2 3 4 5 6 ...

**AN1136: Determination of Perchlorate in Drinking Water using a Microbore Reagent Free Ion Chromatography System**  
Instrument Type: IC

This Application Note expands the scope of the linear range and initial demonstration of accuracy, precision, detection limit (MDL), and perchlorate recovery in field samples. Overall specified in U.S. EPA Method 314.0. (This part has a one-click workflow using ICS5000 and AS-DV autosampler).

**AU148: Determination of Perchlorate in Drinking Water Using a Reagent-Free Ion Chromatography System (Part B)**  
Instrument Type: IC


This Application Update updates the EPA Method 314.0 for perchlorate determination in drinking water with an improved suppressor, the Dionex™ AERS 500 suppressor. The Dionex AERS 500 suppressor is a superior suppressor as it provides high capacity, low noise, high backpressure resilience, and fast startup. Moreover, the AERS 500 suppressor minimizes peak dispersion and improves peak efficiency. This document evaluates and describes the linear range and initial demonstration of capability (EPA Method 314.0, Section 9.2). (This part has a one-click workflow using ICS5000 and AS-DV autosampler).


**AU 154: Determination of Bromate in Drinking and Mineral Water by Isocratic Ion Chromatography with a Hydroxide Eluent**  
Instrument Type: IC

Ozone is a powerful drinking water disinfectant that is effective in treating chlorine resistant organisms. Ozonation is an effective disinfection process that is used worldwide, but will produce bromate if the source water contains bromide. Bromate is a potential human carcinogen and its concentration in drinking water is regulated in many countries. This application update shows that bromate, chlorate, and chlorite can be determined with an isocratic hydroxide eluent to easily meet current bromate regulations.


A search can return a large number of results

# Filtering Results to Focus

  
Add to Favorites

  
Suggest an Application

Find methods for your needs

chlorate

Refine by Feature

▼ Instrument Type

☐ IC

☐ ICMS

▶ Market

▼ Has eWorkflow

☐ Yes

☐ No

▶ Matrix

▶ Run Time Length

▶ Compound

▶ Column

▶ Date Added

Displaying 1-5 of 35 results for "chlorate"

Items per page: 5

Sort by Date Added

Descending

1 2 3 4 5 6 ...



**AN1136: Determination of Perchlorate in Drinking Water using a Microbore Reagent Free Ion Chromatography System (Part C)**  
Instrument Type: IC

This Application Note expands the scope of the linear range and initial demonstration of accuracy, precision, detection limit (MDL), and perchlorate recovery in field samples. Overall specified in U.S. EPA Method 314.0.



**AU148: Determination of Perchlorate in Drinking Water Using a Reagent-Free Ion Chromatography System (Part B)**  
Instrument Type: IC

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Refine results by applying additional filters

# Filtering Results to Focus


The screenshot displays a search interface with several filter panels on the left and search results on the right. The filters include:


- Instrument Type:** ☐ IC, ☐ ICMS
- Market:** ☐ Clinical Research, ☐ Environmental, ☐ Material Science, ☐ Pharma, ☐ Water Analysis
- Has eWorkflow:** ☐ Yes, ☐ No
- Matrix:** ☐ Bottled Natural Mineral Water, ☐ Chilean nitrate fertilizer extract, ☐ Drinking water, ☐ Drinking Water (Spiked), ☐ Drinking water, surface water, reagent water
- Run Time Length:** From [ ] to [ ] [Apply]
- Compound:**
  - Name:** ☐ Bromate, ☐ Bromate - cond, ☐ Bromate - UV, ☐ Bromate - vis, ☐ Bromide
  - Class:** ☐ Anion, ☐ Bromate, ☐ Carbonate, ☐ Chlorate, ☐ Chlorite
- Date Added:** From [ ] to [ ] [Apply]

The search results for "chlorate" are displayed on the right, showing a list of methods with details such as "1136: Determination of Chlorate by Ion Chromatography" and "148: Determination of Chlorate by Ion Chromatography System".


- Instrument type
- Market
- eWorkflow availability
- Sample matrix
- Run time length
- Compound name and class
- Column details
- Date added

# Filtering Results to Focus

  
Add to Favorites

  
Suggest an Application

Find methods for your needs

 chlorate

Refine by Feature

Instrument Type

☐ IC

☐ ICMS

Market

Has eWorkflow

☒ Yes

☐ No

Matrix

Run Time Length

Compound

Name

☒ Bromate

☐ Bromate - cond

☐ Bromate - UV

☐ Bromate - vis

☐ Bromide

More...

Displaying 1-3 of 3 results for "chlorate"

Items per page: 5

Sort by Date Added

Descending



**AU198: Improved Determination of Trace Concentrations of Oxyhalides and Bromide in Drinking Water Using a Hydroxide Ion Chromatography Column** ★★★★★ (1)

Instrument Type: IC

This study demonstrates the Thermo Scientific Dionex AS22 anion-exchange column's key advantages over the Dionex AS19 column. The AS22 column provides a more preservative, good resolution of dichloroacetate, and improved resolution between bromate and chlorate.



**Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1** ★★★★★ (2)

Instrument Type: IC

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 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 Dionex IonPac AS22 anion-exchange column to separate and quantify inorganic anions with manually-prepared carbonate/bicarbonate eluents on a Thermo Scientific Dionex ICS-1100 or a Thermo Scientific Dionex ICS-1600 IC system. This method provides an economical way to meet EPA Method 300.1 (A) regulatory testing requirements.

Reduce number of search results by applying filters

 Add to Favorites
  Suggest an Application

Find methods for your needs

### Refine by Feature

Instrument Type

☐ IC  
☐ ICMS

Market

Has eWorkflow

☒ Yes  
☐ No

Matrix

Run Time Length

Compound

Name

☒ Bromate  
☐ Bromate - cond  
☐ Bromate - UV  
☐ Bromate - vis  
☐ Bromide

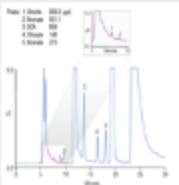
More...

Displaying 1-3 of 3 results for "chlorate"

Items per page: 5 5

Sort by Date Added Descending


Click to open application view



**AU198: Improved Determination of Trace Concentrations of Chlorite, Bromate, Chlorate, and Bromide in Drinking Water Using a Hydroxide-Selective Column**

Instrument Type: IC

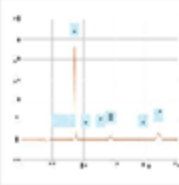
This study demonstrates the Thermo Scientific Dionex IonPac AS27 anion-exchange column for determination of trace concentrations of chlorite, bromate, chlorate, and bromide in drinking water samples. The Dionex IonPac AS27 offers several key advantages over the Dionex AS19 column, including the ability to determine trace bromate in the presence of the EDA preservative, good resolution of dichloroacetate (DCA) from the surrogate anion, and improved resolution between bromate and chlorate.



**Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1** ★★★★★ (2)

Instrument Type: IC

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 AS27 anion-exchange column using an electrolytically generated gradient KOH eluent.



**Municipal Wastewater Analysis According to EPA Method 300.1**

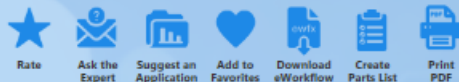
Instrument Type: IC

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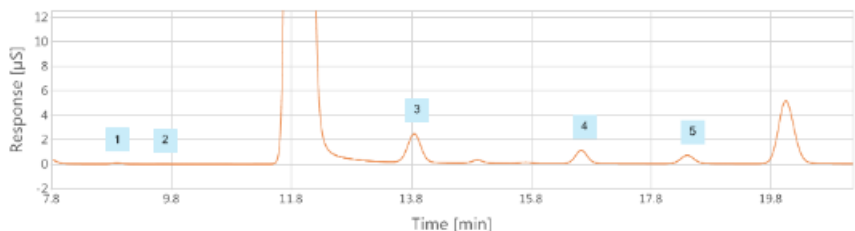
Toolbar, including search



Find methods for your needs

enter compound, matrix or instrument type

## Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1 ★★★★★ (2)



Unzoom

Full Size

CD\_1

### Description

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 AS27 anion-exchange column using an electrolytically generated gradient KOH eluent.

**Market:** Environmental; Water Analysis

**Keywords:** Bromate, Bromide, Chlorate, Chlorite, Disinfection Byproduct, Drinking Water, Environmental, EPA Method 300.1, Ion Chromatography, Water analysis, IonPac AS27

**Matrix:** Drinking Water (Spiked)

**Status:** Proof of Concept

Uploaded on 12/22/2014.

For Research Use Only. Not for use in diagnostic procedures.

### Tags

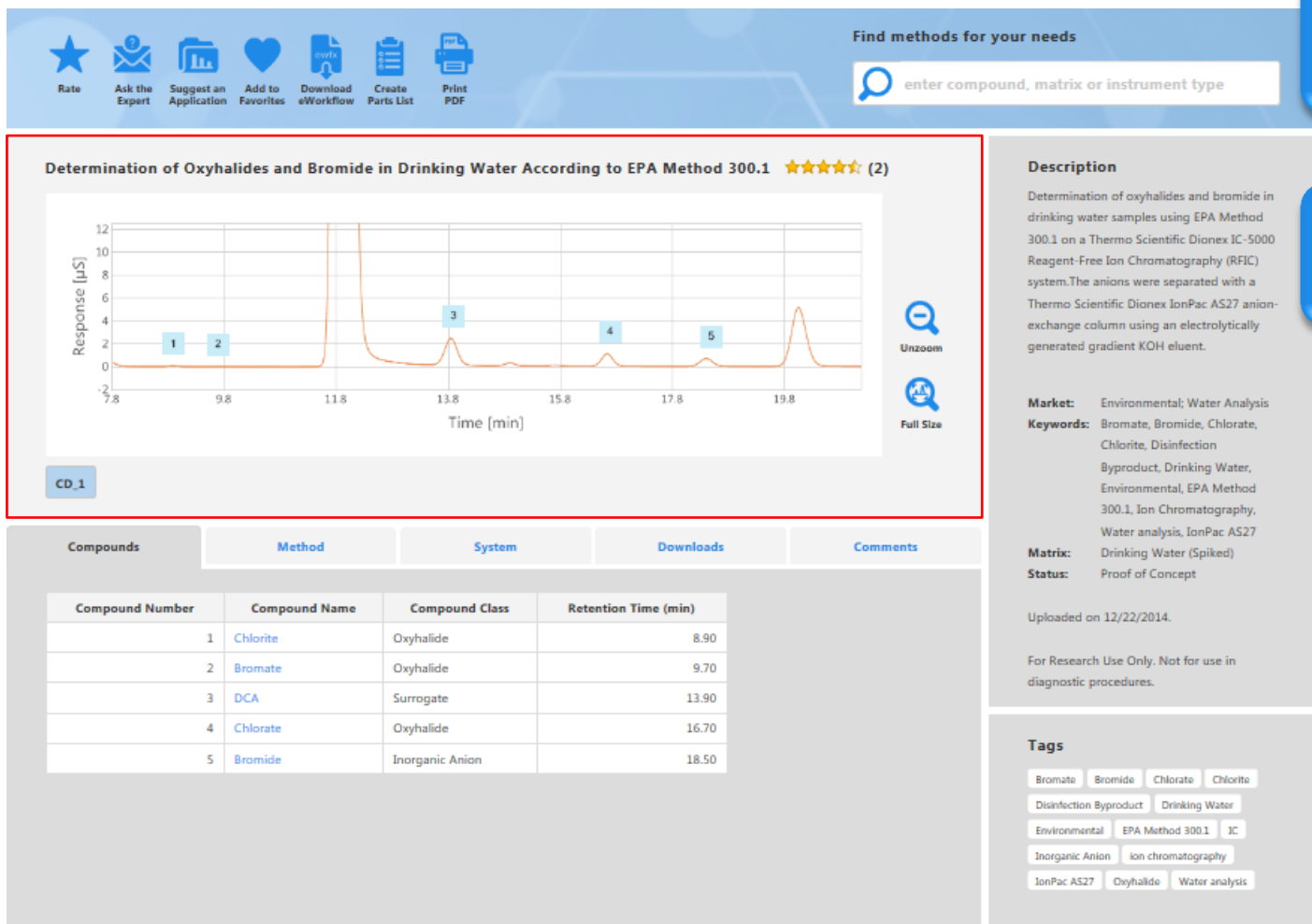
Bromate Bromide Chlorate Chlorite  
Disinfection Byproduct Drinking Water  
Environmental EPA Method 300.1 IC  
Inorganic Anion Ion chromatography  
IonPac AS27 Oxyhalide Water analysis

Compounds Method System Downloads Comments

| Compound Number | Compound Name | Compound Class  | Retention Time (min) |
|-----------------|---------------|-----------------|----------------------|
| 1               | Chlorite      | Oxyhalide       | 8.90                 |
| 2               | Bromate       | Oxyhalide       | 9.70                 |
| 3               | DCA           | Surrogate       | 13.90                |
| 4               | Chlorate      | Oxyhalide       | 16.70                |
| 5               | Bromide       | Inorganic Anion | 18.50                |



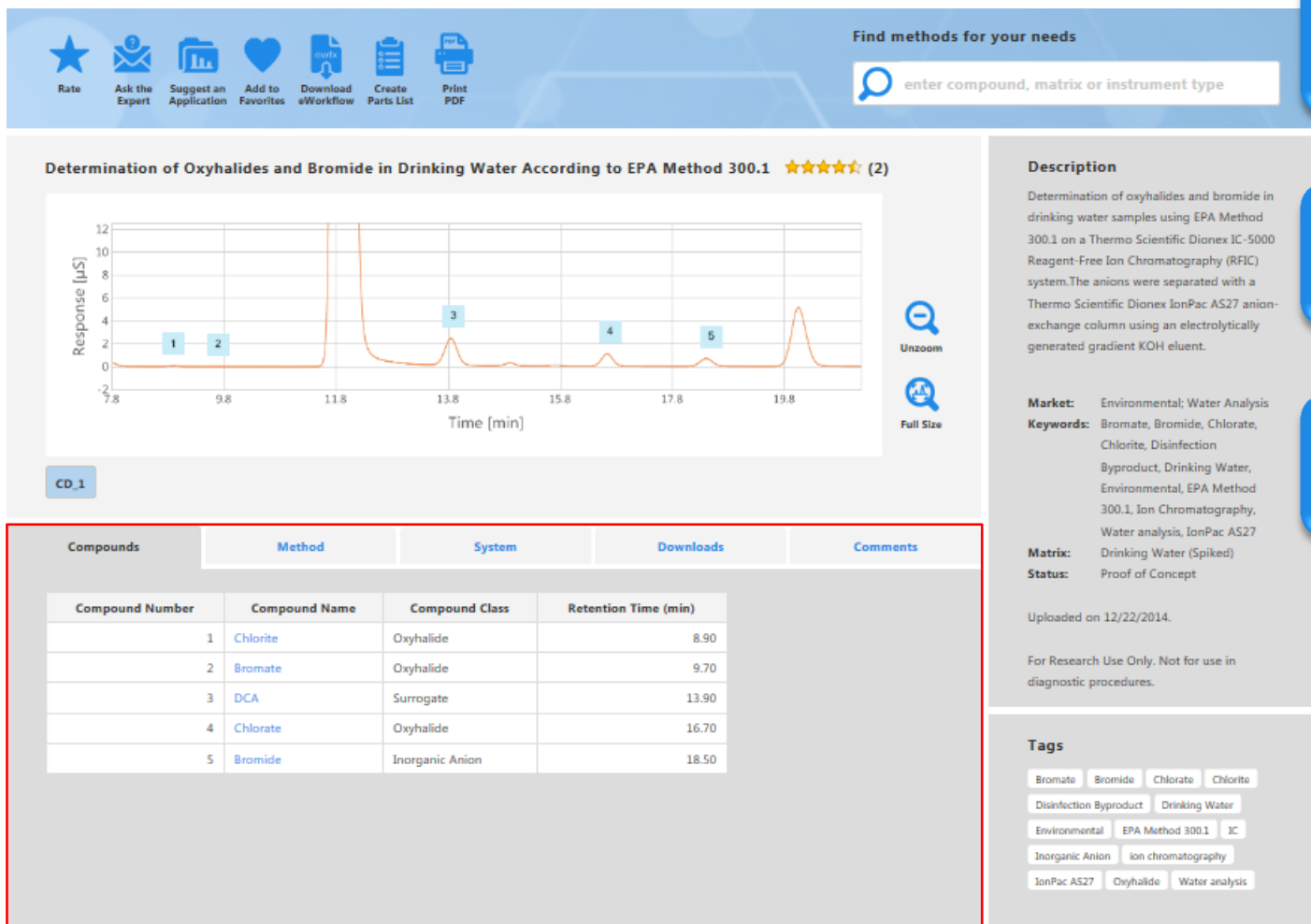
# Application View



Toolbar, including search

Zoomable chromatogram

# Application View



Toolbar, including search

Zoomable chromatogram

Application details

# Application View

★

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📁

Suggest an Application

❤

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📋

Create Parts List

🖨

Print PDF

Find methods for your needs

🔍

enter compound, matrix or instrument type

Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1 ★★★★★ (2)

Response [μS]

12

10

8

6

4

2

0

-2

7.8

9.8

11.8

13.8

15.8

17.8

19.8

Time [min]

1

2

3

4

5

Unzoom

Full Size

CD\_1

Compounds

Method

System

Downloads

Comments

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Description

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 AS27 anion-exchange column using an electrolytically generated gradient KOH eluent.

Market:

Environmental; Water Analysis

Keywords:

Bromate, Bromide, Chlorate, Chlorite, Disinfection Byproduct, Drinking Water, Environmental, EPA Method 300.1, Ion Chromatography, Water analysis, IonPac AS27

Matrix:

Drinking Water (Spiked)

Status:

Proof of Concept

Uploaded on 12/22/2014.

For Research Use Only. Not for use in diagnostic procedures.

Tags

Bromate

Bromide

Chlorate

Chlorite

Disinfection Byproduct

Drinking Water

Environmental

EPA Method 300.1

IC

Inorganic Anion

ion chromatography

IonPac AS27

Oxyhalide

Water analysis

Toolbar, including search

Zoomable chromatogram

Application details

Description

# Application View

★

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Add to Favorites

📄

Download eWorkflow

📋

Create Parts List

🖨

Print PDF

Find methods for your needs

🔍

enter compound, matrix or instrument type

Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1 ★★★★★ (2)

Response [μS]

12

10

8

6

4

2

0

-2

7.8

9.8

11.8

13.8

15.8

17.8

19.8

Time [min]

1

2

3

4

5

Unzoom

Full Size

CD\_1

Compounds

Method

System

Downloads

Comments

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Bromate

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Environmental

EPA Method 300.1

IC

Inorganic Anion

ion chromatography

IonPac AS27

Oxyhalide

Water analysis

Toolbar, including search

Zoomable chromatogram

Application details

Description

Tags for additional searches

# Application Details - Compounds

Compound  
information

| Compounds       | Method        | System          | Downloads            | Comments |
|-----------------|---------------|-----------------|----------------------|----------|
| Compound Number | Compound Name | Compound Class  | Retention Time (min) |          |
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| 5               | Bromide       | Inorganic Anion | 18.50                |          |

- List of all compounds, including the compound class and retention time

# Application Details - Method

| Compounds                          | Method      | System                              | Downloads     | Comments    |
|------------------------------------|-------------|-------------------------------------|---------------|-------------|
| <b>Method Parameters</b>           |             |                                     |               |             |
| Run Time Length                    | 30 min      | <b>Gradient IC SP / Pump</b>        |               |             |
| Injection Volume                   | 250.0 µL    | Ret Time (min)                      | Flow (ml/min) | %B %C %D    |
| IC Pump 1 Eluent A                 | Water       | 0.000                               | 1.000         | 0.0 0.0 0.0 |
| Sampler Tray Temp                  | 6.0 °C      | <b>Gradient IC Eluent generator</b> |               |             |
| IC Eluent Generator Cartridge Type | EGC 500 KOH | Ret Time (min)                      | Flow (ml/min) | Conc (mM)   |
| IC Suppressor Type                 | AERS 500    | 0.000                               | 1.000         | 12.0        |
| IC Suppressor Current              | 149.0 mA    | 10.000                              | 1.000         | 12.0        |
| IC Column Oven Temperature         | 30.0 °C     | 12.000                              | 1.000         | 20.0        |
| IC Detector Oven Temperature       | 30.0 °C     | 20.000                              | 1.000         | 20.0        |
|                                    |             | 20.000                              | 1.000         | 60.0        |
|                                    |             | 30.000                              | 1.000         | 60.0        |

Compound  
information

Method details

- Detailed overview of method parameters



# Application Details - System

| Compounds                           | Method                      | System | Downloads | Comments |
|-------------------------------------|-----------------------------|--------|-----------|----------|
| Instrument                          |                             |        |           |          |
| Instrument type                     | IC                          |        |           |          |
| Manufacturer                        | Thermo Fisher Scientific    |        |           |          |
| System                              | Dionex ICS-5000+            |        |           |          |
| IC Pump Model                       | ICS-5000 DP                 |        |           |          |
| Autosampler Model                   | AS-AP                       |        |           |          |
| Column & Detector Compartment Model | DC                          |        |           |          |
| Detector Type                       | CD                          |        |           |          |
| Columns                             |                             |        |           |          |
| Manufacturer                        | Thermo Fisher Scientific    |        |           |          |
| Brand                               | Thermo Scientific Dionex    |        |           |          |
| Model                               | IonPac AG27                 |        |           |          |
| Diameter                            | 4 mm                        |        |           |          |
| Length                              | 50 mm                       |        |           |          |
| Particle Size                       | 6.5 µm                      |        |           |          |
| Stationary Phase                    | Anion Exchanger             |        |           |          |
| Part Number                         | 088438                      |        |           |          |
| URL                                 | <a href="#">IonPac AG27</a> |        |           |          |
| Manufacturer                        | Thermo Fisher Scientific    |        |           |          |
| Brand                               | Thermo Scientific Dionex    |        |           |          |
| Model                               | IonPac AS27                 |        |           |          |
| Diameter                            | 4 mm                        |        |           |          |
| Length                              | 232 mm                      |        |           |          |
| Particle Size                       | 6.5 µm                      |        |           |          |
| Stationary Phase                    | Anion Exchanger             |        |           |          |
| Part Number                         | 088437                      |        |           |          |
| URL                                 | <a href="#">IonPac AS27</a> |        |           |          |





Compound  
information

Method details

Instruments and  
consumables

- Details for all instruments, columns and consumables

# Application Details - Downloads

| Compounds   | Method | System | Downloads | Comments   |
|---|--------|--------|-----------|--|
| EPA300_1.pdf<br>EPA method 300.1  |        |        | 407 kb    |  Download |
| AU 198 - IC - Oxyhalides - Bromide - Drinking - Water.pdf<br>Application Update 198   |        |        | 1375 kb   |  Download |
| AS27 - EPA Method 300.1 Templates.ewfx<br>eWorkflow EPA 300.1 on Thermo Scientific Dionex IonPac AS27   |        |        | 3704 kb   |  Download |
| TN-71663-Chromeleon-CDS-Inorganic-Anions-Drinking-Water-TN71663-EN.pdf<br>Technical Note 71663 - Chromeleon workflow for inorganic anions in drinking water |        |        | 4937 kb   |  Download |
| <b>Web Links</b><br><a href="#">EPA 300.1 at US EPA website</a>   |        |        |           |  |

Compound  
information

Method details

Instruments and  
consumables

Downloadable  
files

- List of all downloadable files and web links

# Application Details - Comments

| Compounds | Method | System | Downloads | Comments  |
|-----------|--------|--------|-----------|---|
|           |        |        |           | <p><b>good application</b><br/>By Steve W. on 11/18/2015<br/>nice stuff<br/>Reply by Sue B. on 3/22/2016<br/>nice comment - couldn't agree more<br/>Reply by Sue B. on 3/22/2016<br/>Certainly a nice piece of work</p> <p>★★★★☆ <b>good application</b><br/>By Susanne K. on 11/5/2015</p> <p>★★★★★ <b>nice application</b><br/>By Steve W. on 10/13/2015<br/>I was able to easily run this application in my lab.</p> |

Compound  
information

Method details

Instruments and  
consumables

Downloadable  
files

Comments and  
ratings

- User comments and rating, including replies

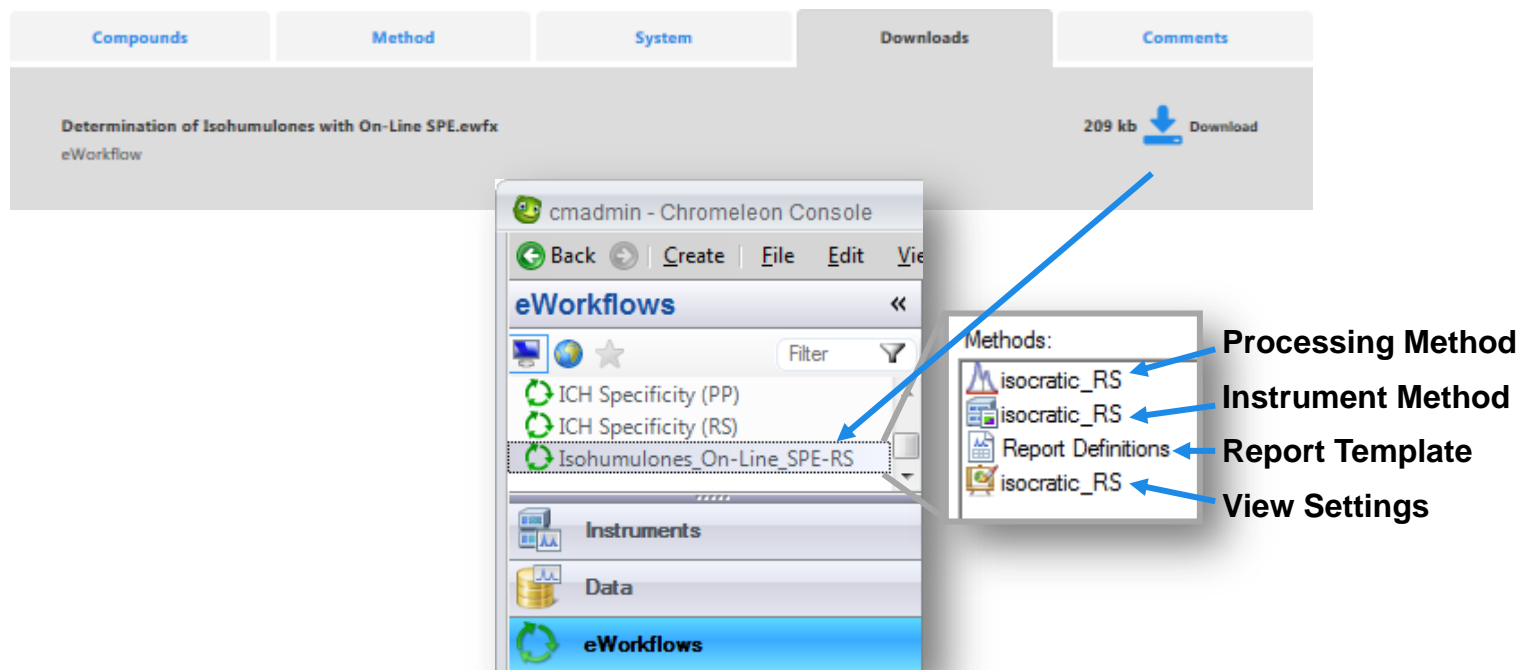
# From Web to Lab – One-Click Workflow Concept



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methods, workflows and more

# From Web to Lab – One-Click Workflow Concept

- Direct download of an eWorkflow containing instrument parameters, processing method, report template and sequence setup
- Import directly into Thermo Scientific™ Dionex™ Chromeleon™ Chromatography Data System software → Ready to run



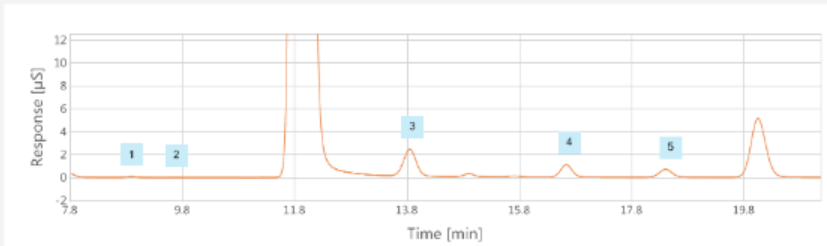
# From Web to Lab – Find Application and Download eWorkflow

ThermoFisher Scientific AppsLab Library

Getting Started Contact Us My Account

Find methods for your needs  
enter compound, matrix or instrument type

Determination of Oxyhalides and Bromide in Drinking Water According to EPA Method 300.1 Be the first to rate this application



CD\_1

**Download eWorkflow**

**Downloads**

| File Name   | Size    | Download |
|---|---------|----------|
| AU 198 - IC - Oxyhalides - Bromide - Drinking - Water.pdf<br>Application Update 198   | 407 kb  | Download |
| AS27 - EPA Method 300.1 Templates.ewfx<br>eWorkflow EPA 300.1 on Thermo Scientific Dionex IonPac AS27   | 3704 kb | Download |
| TN-71663-Chromleon-CDS-Inorganic-Anions-Drinking-Water-TN71663-EN.pdf<br>Technical Note 71663 - Chromleon workflow for inorganic anions in drinking water | 4937 kb | Download |

**Description**

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 AS27 anion-exchange column using an electrolytically generated gradient KOH eluent.

**Market:** Environmental

**Keywords:** Bromate, Bromide, Chlorate, Chlorite, Dionex IonPac AS27, 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.

For Research Use Only. Not for use in diagnostic procedures.

**Tags**

Bromate Bromide Chlorate Chlorite  
Disinfection Byproduct Drinking Water  
Environmental EPA 300.1 IC  
Inorganic Anion Ion chromatography  
IonPac AS27 Oxyhalide Surrogate



# From Web to Lab – Import eWorkflow and Start Run

The screenshot displays the Chromeleon Console web interface. On the left, the 'eWorkflows' sidebar lists various templates under 'ChromeleonLocal', with 'AS27 - EPA Method 300.1 Templates' highlighted. The main panel shows the details for this workflow, including a description, type (IC), and status (Approved). Below this, a 'Launch' button is visible next to a text field containing '< Run 'AS27 - EPA Method 300.1 Templates' using instrument '01\_ICS-5000+' >'. A table below the launch button shows the instrument status, with the first row indicating instrument '01\_ICS-5000+' is 'Idle'. A blue callout bubble with a pointer to the 'Launch' button and the first row of the table contains the text: 'Select eWorkflow, instrument and launch'. The bottom status bar indicates 'eWorkflow 'AS27 - EPA Method 300.1 Templates' selected' and the user 'barbara.van.cann: Admin Local'.

barbara.van.cann - Chromeleon Console

Back Create File Edit View Tools Help

**eWorkflows**

Filter

More filters (none)

**ChromeleonLocal**

- AS27 - EPA Method 300.1 Templates
- CUT Templates Stage 1 (10 units)
- CUT Templates Stage 2 (+20 units)
- Dissolution Templates
- EPA Method 524.3 Analysis Batch
- EPA Method 524.3 MRL Confirmation
- EPA Method 524.3 Templates
- GPC Templates
- GU Calculation Templates

**AS27 - EPA Method 300.1 Templates**

Description: This eWorkflow contains all files required for executing calculations required by EPA Method 300.1. Please refer to attached user manual for more information.

Type: IC

Status: Approved

EPA 300.1 Templates - User Manual.pdf EPA300\_1.pdf

Launch < Run 'AS27 - EPA Method 300.1 Templates' using instrument '01\_ICS-5000+' > Edit

| # | Instrument Name | Instrument Status | Sequence Status | Queue Status |
|---|-----------------|-------------------|-----------------|--------------|
| 1 | 01_ICS-5000+    | Idle              |                 |              |

Select eWorkflow, instrument and launch

eWorkflow 'AS27 - EPA Method 300.1 Templates' selected

barbara.van.cann: Admin Local

# From Web to Lab – Import eWorkflow and Start Run

barbara.van.cann - Chromeleon Console

Back Create File Edit View Tools Help

**eWorkflows**

Filter

More filters (none)

**ChromeleonLocal**

- AS27 - EPA Method 300.1 Templates
- CUT Templates Stage 1 (10 units)
- CUT Templates Stage 2 (+20 units)
- Dissolution Templates
- EPA Method 524.3 Analysis Batch
- EPA Method 524.3 MRL Confirmation
- EPA Method 524.3 Templates
- GPC Templates
- GU Calculation Templates

**AS27 - EPA Method 300.1 Templates**

Description: This eWorkflow contains all files required for executing calculations required by EPA Method 300.1. Please refer to attached user manual for more information.

Type: IC

**eWorkflow Wizard**

**Sample Configuration**

Define the desired number of samples and the corresponding start position

Number of samples: 12 [1...18]

Sampler start position: RA1 [RA1...B8]

☒ Run sequence after creation

**Sequence Results**

| Chromatogram | Name                     | Type                 | Level |
|--------------|--------------------------|----------------------|-------|
| 1 None       | Laboratory Reagent Blank | Unknown              |       |
| 2 None       | Calibration Standard 1   | Calibration Standard | 01    |
| 3 None       | Calibration Standard 2   | Calibration Standard | 02    |
| 4 None       | Calibration Standard 3   | Calibration Standard | 03    |

Cancel Finish

Set no. of samples and start position

Workflow 'AS27 - EPA Method 300.1 Templates' selected

barbara.van.cann: Admin Local

# From Web to Lab – Run Analysis

barbara.van.cann - Chromeleon Console

Back Create File Edit View Tools Help

**Data**

ChromleonLocal  
Demo\_Data  
EPA Method 300\_1  
2013  
2014  
2015  
2016  
04\_April  
EPA 300.1 2016-04-21 16-07-07  
Demo Data  
EPA Method 524\_3  
EPA Method 525  
EPA Method 8270  
Extension Pack  
Instrument Data  
MS  
Deleted Items

Filter

**EPA 300.1 2016-04-21 16-07-07**

Running Stop 01\_ICS-5000+ (Running)

Save Studio Print Up Insert Row Fill Down Lock Filtering Grouping

| #  | CD_1      | Name                               | Type                 | Level | *Analysis_Type                           |
|----|-----------|------------------------------------|----------------------|-------|--|
| 1  | No Signal | Laboratory Reagent Blank           | Unknown              |       | Laboratory Reagent Blank (LRB)           |
| 2  | None      | Calibration Standard 1             | Calibration Standard | 01    | Initial Calibration Standard (CAL)       |
| 3  | None      | Calibration Standard 2             | Calibration Standard | 02    | Initial Calibration Standard (CAL)       |
| 4  | None      | Calibration Standard 3             | Calibration Standard | 03    | Initial Calibration Standard (CAL)       |
| 5  | None      | Calibration Standard 4             | Calibration Standard | 04    | Initial Calibration Standard (CAL)       |
| 6  | None      | Calibration Standard 5             | Calibration Standard | 05    | Initial Calibration Standard (CAL)       |
| 7  | None      | Calibration Standard 6             | Calibration Standard | 06    | Initial Calibration Standard (CAL)       |
| 8  | None      | Initial Calibration Check Standard | Check Standard       | 01    | Initial Calibration Check Standard (CAL) |
| 9  | None      | Laboratory Fortified Blank         | Unknown              |       | Laboratory Fortified Blank (LFB)         |
| 10 | None      | Field Sample 10                    | Unknown              |       | Field Sample                             |
| 11 | None      | Field Sample 11                    | Unknown              |       | Field Sample                             |
| 12 | None      | Field Sample 12                    | Unknown              |       | Field Sample                             |
| 13 | None      | Field Sample 13                    | Unknown              |       | Field Sample                             |
| 14 | None      | Field Sample 14                    | Unknown              |       | Field Sample                             |
| 15 | None      | Field Sample 15                    | Unknown              |       | Field Sample                             |
| 16 | None      | Field Sample 16                    | Unknown              |       | Field Sample                             |
| 17 | None      | Field Sample 17                    | Unknown              |       | Field Sample                             |
| 18 | None      | Field Sample 18                    | Unknown              |       | Field Sample                             |

Rack View

| Name                             | Type              | Date Modified              | Comment |
|----------------------------------|-------------------|----------------------------|---------|
| Default                          | View Settings     | 12/15/2014 15:35:21 +01:00 |         |
| EPA 300.1                        | Report Template   | 12/15/2014 15:35:21 +01:00 |         |
| EPA 300.1 AS27                   | Instrument Method | 12/16/2014 12:00:37 +01:00 |         |
| EPA 300.1 Part A                 | Processing Method | 12/15/2014 15:35:21 +01:00 |         |
| EPA 300.1 Part B                 | Processing Method | 12/15/2014 15:35:21 +01:00 |         |
| EPA 300.1 Templates - User Ma... | Associated File   | 8/7/2014 16:38:51 +02:00   |         |

Associated Items Custom Sequence Variables (0) Custom Formulas

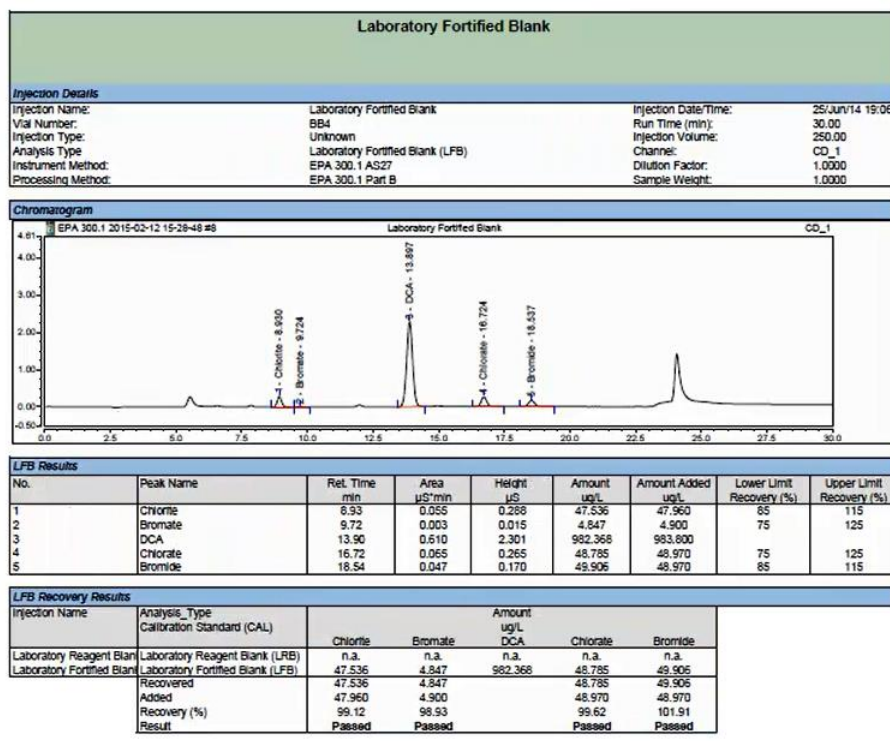
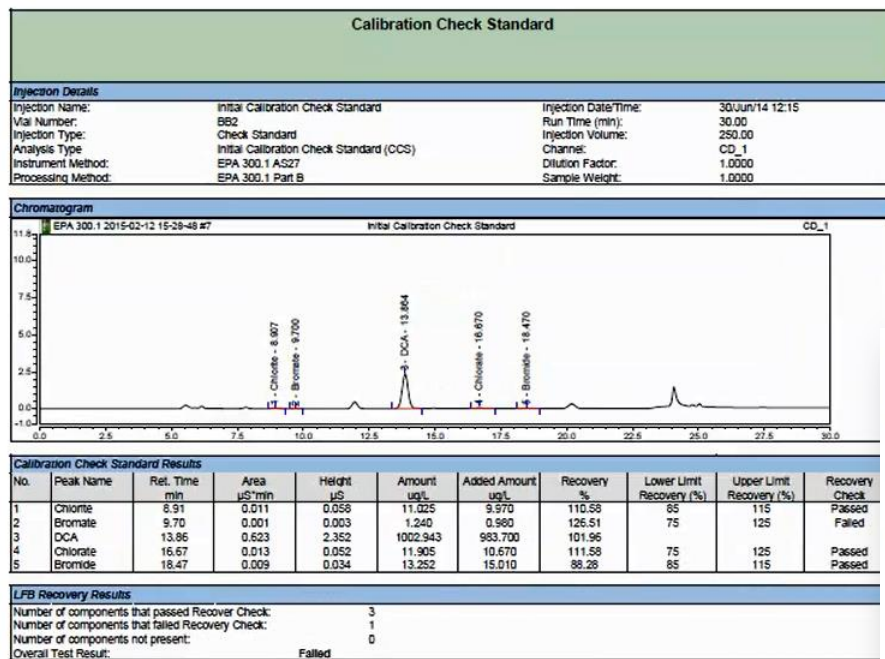
Sequence 'EPA 300.1 2016-04-21 16-07-07' selected

barbara.van.cann: Admin Local

Instruments  
Data  
eWorkflows

# From Web to Lab – Report Results

After sequence completion a full report, including calculations and checks, is created.

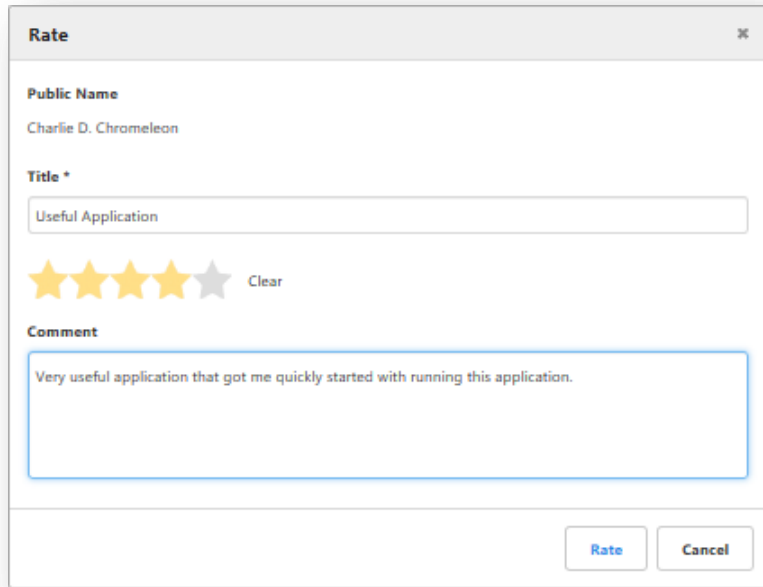


# Interact and Share



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methods, workflows and more

# Interact with experts



A screenshot of a 'Rate' dialog box. The dialog has a title bar 'Rate' with a close button. Inside, there is a 'Public Name' field with the text 'Charlie D. Chromeleon'. Below it is a 'Title \*' field with the text 'Useful Application'. Under the title field is a 5-star rating system with four yellow stars and one grey star, followed by a 'Clear' link. Below the stars is a 'Comment' text area containing the text 'Very useful application that got me quickly started with running this application.' At the bottom right are two buttons: 'Rate' and 'Cancel'.

- Rate and comment
  - Viewable for other users





# Interact with experts

**Rate**

Public Name  
Charlie D. Chromeleon

Title \*

Use

★

Com

Ver

**Ask the Expert**

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

Question \*

Is it possible to run this application on an AS19 as well?

Send Cancel

- Rate and comment
  - Viewable for other users



- Ask the expert
  - Connect directly with application experts for additional information



# Interact with experts

The image shows three overlapping dialog boxes from a software interface. The topmost dialog is 'Suggest an Application', which contains the following fields and content:

- Name:** Charlie Chromeleon
- Company:** Chameleon Inc.
- Location:** UNITED STATES
- Industry:** Other
- Instrument type (preferred):** IC (selected from a dropdown)
- Email address:** charlie.chromeleon@thermo.com
- Components of interest \*:** Chlorate, Bromate
- Other method requirements:** See U.S. EPA method 300.1
- Matrix:** Wastewater, Surface Water, Drinking Water, Ground Water
- Comment:** (empty text area)
- Buttons:** Send, Cancel

The middle dialog is 'Ask the Expert', showing 'Application Name' and 'Determ'.

The bottom dialog is 'Rate', showing 'Public Name' as 'Charlie D. Chromeleon' and 'Title \*'.

- Rate and comment
  - Viewable for other users



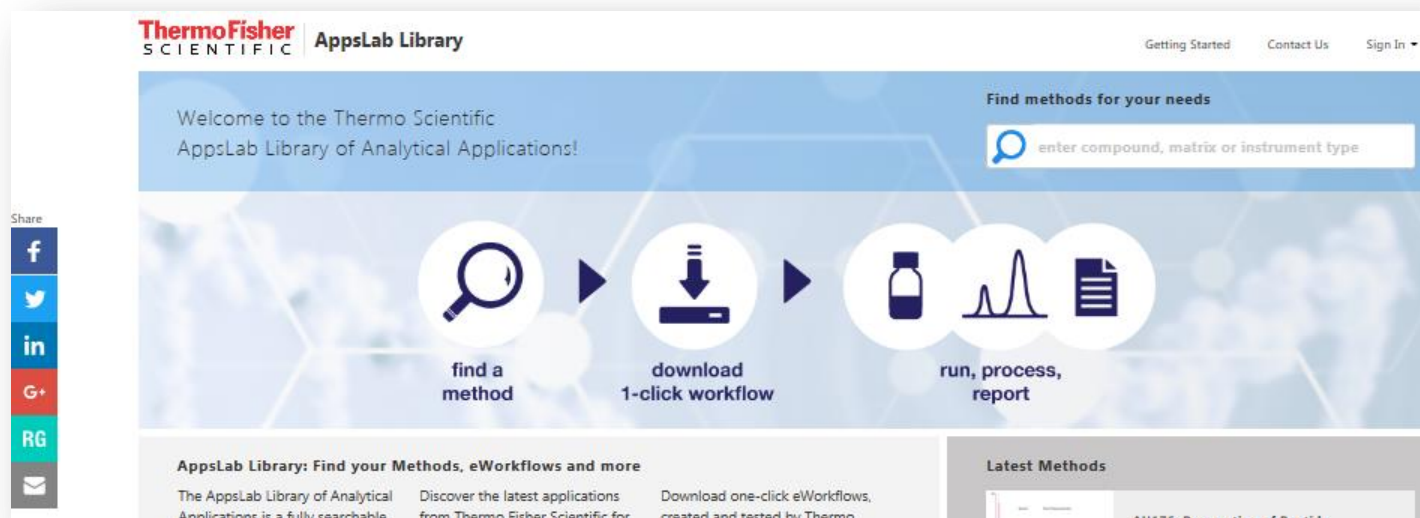
- Ask the expert
  - Connect directly with application experts for additional information



- Suggest an application
  - Provide suggestions for future applications



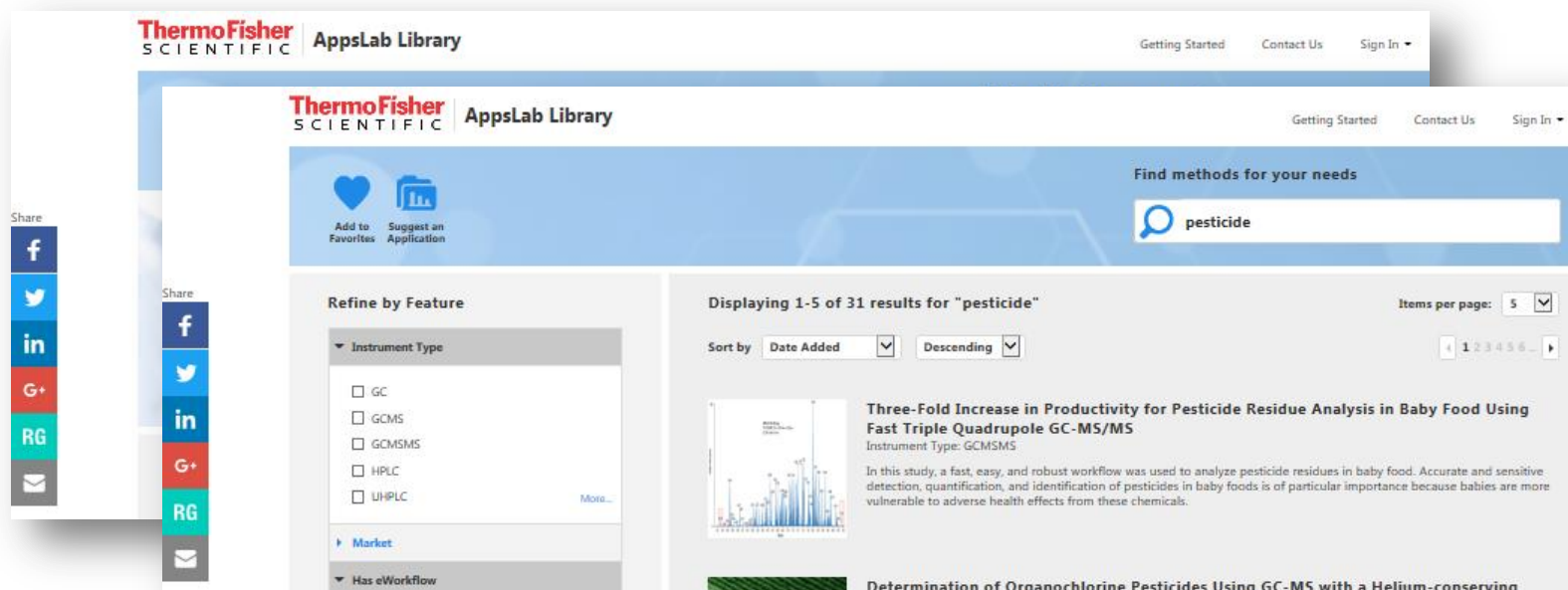
- Share via email or social media
  - AppsLab Library



Share



- Share via email or social media
  - AppsLab Library
  - Searches



Share



Share



Share



- Share via email or social media
  - AppsLab Library
  - Searches
  - Individual applications

The screenshot displays the ThermoFisher Scientific AppsLab Library website. The top navigation bar includes the ThermoFisher Scientific logo, the 'AppsLab Library' title, and links for 'Getting Started', 'Contact Us', and 'Sign In'. A search bar prompts users to 'Find methods for your needs' by entering a compound, matrix, or instrument type. Below the search bar, a row of icons offers actions: Rate, Ask the Expert, Suggest an Application, Add to Favorites, Create Parts List, and Print PDF. The main content area features a specific application titled 'Analysis of total organic carbon (TOC) by GC-MS', with a prompt to 'Be the first to rate this application'. This section contains a chromatogram plot showing 'Relative Abundance' on the y-axis (0 to 100) and 'Time (min)' on the x-axis. To the right of the plot is a 'Description' box detailing the application's performance. On the left side of the interface, there are three vertical 'Share' buttons, each containing icons for Facebook (17 shares), Twitter, LinkedIn (154 shares), Google+, ResearchGate (RG), and Email.

# Summary



**AppsLab Library**  
methods, workflows and more

# Summary

- AppsLab Library is the chromatographer's web-portal to Thermo Scientific's comprehensive application expertise to speed up method development and optimization.
- Save significant time by easily recreating applications found in AppsLab Library on your existing hardware and chromatography data system.
- Download one-click workflows including all application parameters from AppsLab Library directly into Chromeleon CDS – Ready to Run
- Visit [www.thermofisher.com/appslab](http://www.thermofisher.com/appslab)



**AppsLab Library**  
methods, workflows and more