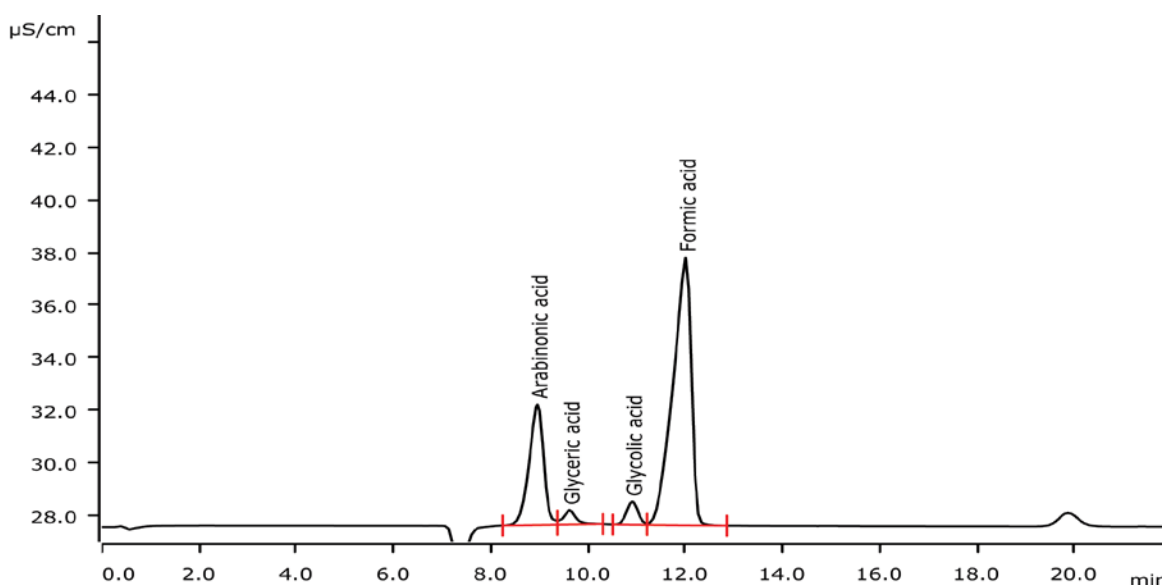


# Organic acids in organics with conductivity detection after inverse suppression



Arabinonic, glyceric, glycolic, and formic acid are determined in an organic compound applying ion-exclusion chromatography and conductivity detection after inverse suppression. For the inverse suppression, the Metrohm Suppressor Module is used in its lithium form to reduce the background conductivity and to convert the acids to their fully dissociated  $\text{Li}^+$  form. Regeneration is performed by lithium chloride.

## Results

Acid	Concentration [g/L]	RSD [%] n = 3
Arabinonic acid	35.41	0.5
Glyceric acid	1.01	5.1
Glycolic acid	1.11	1.1
Formic acid	10.79	0.1

### Sample

Organic compound

### Sample preparation

0.1 g of sample dissolved in 50 mL of ultrapure water.

### Columns

Metrosep Organic Acids - 250/7.8	6.1005.200
Metrosep Organic Acids Guard/4.6	6.1005.250

### Solutions

Eluent	0.125 mmol/L sulfuric acid
Suppressor regenerant	250 mmol/L lithium chloride
Rinsing solution	STREAM

### Analysis

Conductivity detection after inverse suppression

### Instrumentation

930 Compact IC Flex Oven/ChS/PP/Deg	2.930.2360
IC Conductivity Detector	2.850.9010
863 Compact IC Autosampler	2.863.0010

### Parameters

Flow rate	0.5 mL/min
Injection volume	10 $\mu$ L
P <sub>max</sub>	5 MPa
Recording time	22 min
Column temperature	45 °C

