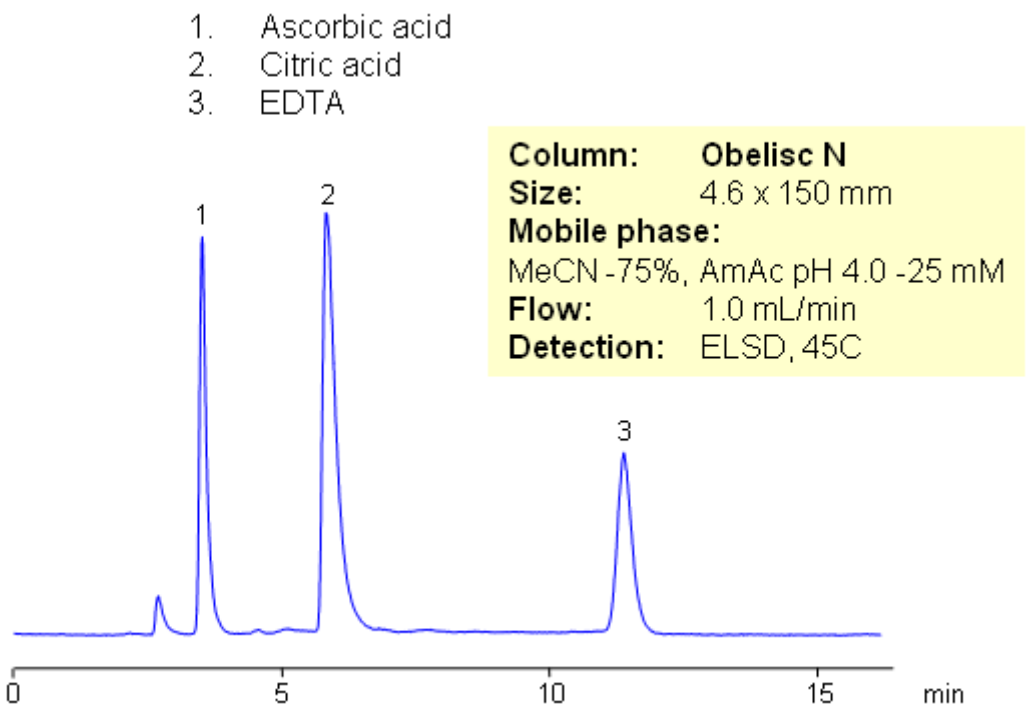
HILIC Separation of Common Preservatives – Citric Acid, Ascorbic Acid and EDTA

https://sielc.com/Application-HILIC-Separation-of-Common-Preservatives-Citric-Acid-Ascorbic-Acid-and-EDTA

Chromatogram



Description

Citric acid, ascorbic acid, and EDTA are commonly used in food and pharmaceutical industry as preservatives. These compounds are very polar in nature. They are weak organic acids with limited UV activity. Retention and separation is achieved on HILIC mixed-mode Obelisc N column. All three compounds are retained by combination of strong HILIC and strong anion-exchange mechanisms. Separation can be monitored by ELSD, LC/MS, UV or Corona CAD. In contrast to other HILIC column, Obelisc N has two ionizable groups basic and acidic which provide ion-exchange interaction in addition to hydrophilic interaction. This allows to use less acetonitrile for HILIC separation.

Method Parameters

Mobile Phase	MeCN/H2O
Buffer	AmAc pH 4.0
Flow Rate	1.0 ml/min
Detection	ELSD
Class of Compounds	Acid, Vitamin B■, Hydrophobic, Ionizable
Analyzing Compounds	Citric acid, ascorbic acid and EDTA

HPLC Column Used

Obelisc N , 4.6×150 mm, 5 µm, 100A

Order this column at hplc-shop.de →