MICROSOLV TECHNOLOGY CORPORATION
HPLC Columns and Chromatography Accessories

SINCE 1992

Tyramine, N-Methyltyramine & Synephrine Analyzed with LCMS – AppNote

Adrenergic Amines found in Citrus Fruit Juice with LCMS

This Method, developed for the analysis of Tangerine Juice is Sensitive, Fast, Simple and Reproducible when using a Mass Spectrometer.

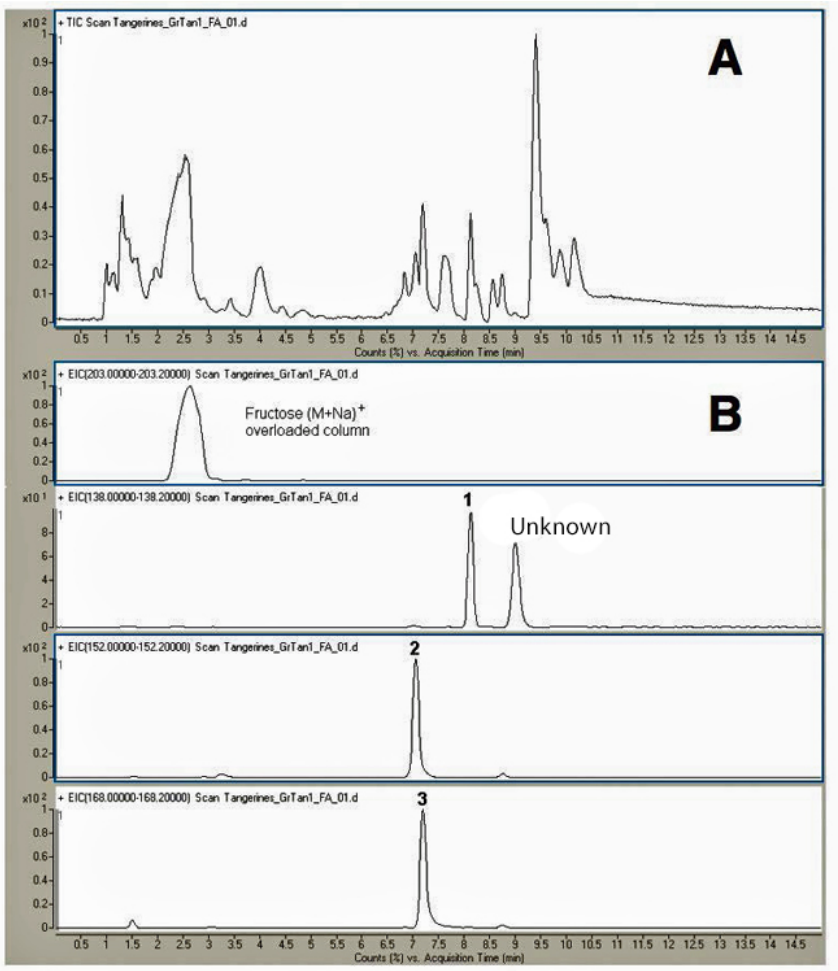
The resulting Sample and diluent, after centrifugation, is fully compatible with the Mobile Phase *(listed below)*, which allows direct injection with no further Sample Prep being required. Total time of the Analysis *(including Equilibration of the Column)* is only 30 minutes.

Problems normally associated with the HPLC Separation of Adrenergic Amines, such as Peak Tailing, low Retention and limited Resolution, are solved with this Method which is Robust and Reliable and can be considered for the Quality Control of Citrus Plant Material and many commercial Citrus Based Products.

MICROSOLV TECHNOLOGY CORPORATION

HPLC Columns and Chromatography Accessories

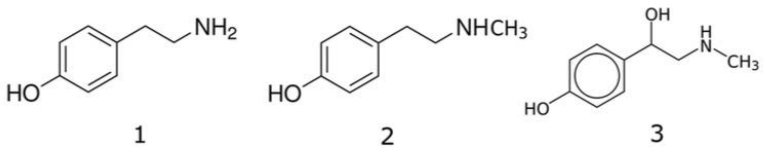
SINCE 1992



MICROSOLV TECHNOLOGY CORPORATION

HPLC Columns and Chromatography Accessories

SINCE 1992



Peaks:

1. Tyramine 138.09134 m/z (M+H)+
2. N-Methyltyramine 152.10699 m/z (M+H)+
3. Synephrine 168.10191 m/z (M+H)+

Method Conditions

Column: Cogent Diamond Hydride™, 4µm, 100Å
Catalog No.: 70000-15P-2
Dimensions: 2.1 x 150mm
Mobile Phase:
A: DI Water / 0.1% Formic Acid
B: Acetonitrile / 0.1% Formic Acid
Gradient:

Time *(minutes)*	%B

0	90
2.5	90
6	70
7	70
12	30
13	30
13.1	90
15	90

Flow rate: 0.4mL / minute
Detection: ESI – pos – Agilent 6210 MSD TOF Mass Spectrometer.
Sample Preparation: Squeezed Tangerine Juice was centrifuged and supernatant was diluted with Acetonitrile / 0.1% Formic Acid (1 portion of juice and 1 portion of Acetonitrile). Sample was then centrifuged again and 1mL of the supernatant was injected into the LCMS.
t_0: 1.44 minutes

Notes: *Traditionally with ordinary HPLC methods, extensive sample preparation is required, as well as, derivatization of many compounds or ion exchange resins must be used for sufficient retention.*

MICROSOLV TECHNOLOGY CORPORATION
HPLC Columns and Chromatography Accessories

SINCE 1992

COGENT HPLC Columns™

Attachment

No 57 Tyramine, N-Methyltyramine & Synephrine Analyzed with LCMS pdf 0.3 Mb Download File