

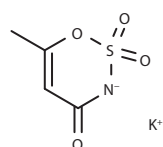


SWEETENERS & ORGANIC ACIDS

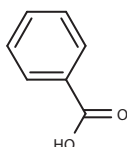
INTRODUCTION

This application shows the separation of three groups of compounds in parallel: non-nutritive sweeteners, organic acids and xanthine derivatives.

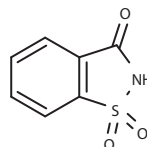
Substance: See analytes



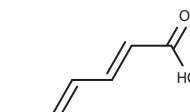
Acesulfame-K



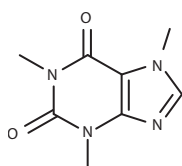
Benzoic acid



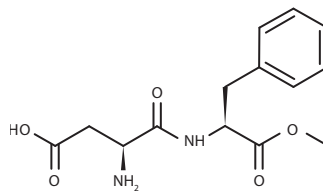
Saccharin



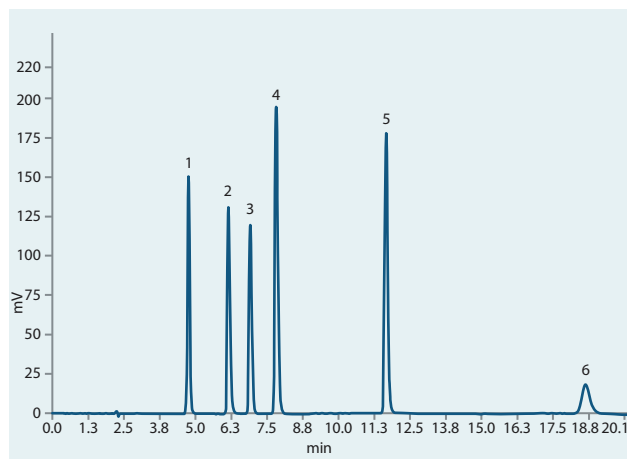
Sorbic acid



Caffeine



Aspartame



Standard mixture

Column	ARION® Plus C18, 5.0 µm
Dimensions	150 mm × 4.6 mm
Part number	ARI-5720-LK46
Mobile phase	acetonitril : methanol : 17.5 mmol/l KH ₂ PO ₄ 0.1 mol/l NaOH > pH = 6.0 Gradient *according table below
Flow rate	1.3 to 1.5 ml/min
Temperature	Ambient
Detection	UV @214 & 230 nm
Analytes	1. Acesulfame-K, CAS 55589-62-3 2. Benzoic acid, CAS 65-85-0 3. Saccharin, CAS 81-07-2 4. Sorbic acid, CAS 110-44-1 5. Caffeine, CAS 58-08-2 6. Aspartame, CAS 22839-47-0

* Gradient program

Time (min)	Flow rate (ml/min)	Wavelength (nm)	A (%) (Water)	B (%) 17,5M KH ₂ PO ₄	C (%) Acetonitrile	D (%) Methanol
0	1.3	230	0	90	2	8
7	1.5	214	0	80	8	12
14	1.5	214	0	80	8	12
15	1.3	214	0	90	2	8
17	1.3	214	0	90	2	8