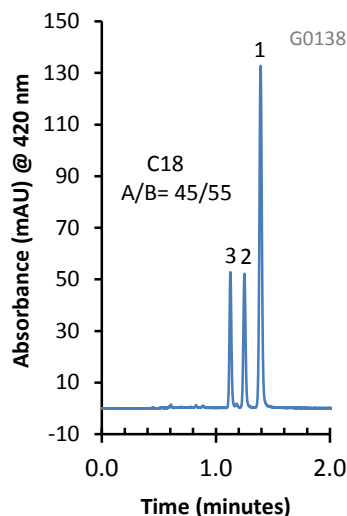
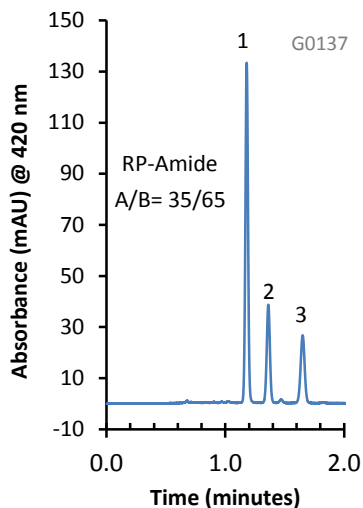


Analysis of Curcumins on HALO RP-Amide and HALO C18



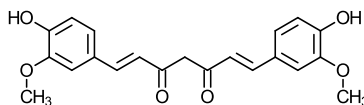
PEAK IDENTITIES:

- 1 Curcumin
2. Desmethoxycurcumin
3. *bis*-Desmethoxycurcumin

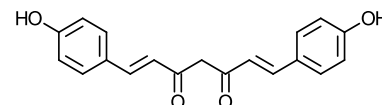
TEST CONDITIONS:

Column: 4.6 x 100 mm, HALO, 2.7 μ m
 Part Number: 92814-602
 Part Number: 92814-607
 Mobile Phase: A/B: See chromatograms
 A= 0.025M phosphate buffer in water, pH=3
 B= Acetonitrile
 Flow Rate: 1.8 mL/min.
 Pressure: 215 bar
 Temperature: 35°C
 Detection: UV 420 nm, VWD
 Injection Volume: 1.0 μ L
 Sample Solvent: methanol
 Response Time: 0.02 sec.
 Data rate: 25 Hz
 Flow Cell: 2.5 μ L semi-micro
 LC System: Shimadzu Prominence UFLC XR
 ECV: ~14 μ L

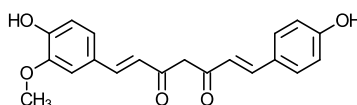
STRUCTURES:



Curcumin



bis-Desmethoxycurcumin



Desmethoxycurcumin

Curcumin isomers were extracted from commercial turmeric spice by adding 0.42 g of as-received turmeric to 20 mL of methanol in a vial. The mixture was vortexed and then sonicated for 5 minutes and allowed to stand overnight. After vortexing and settling, an aliquot of the supernate was filtered through a 0.2 μ m porosity Teflon syringe filter. A sample of this clear orange liquid was diluted 1:4 with methanol for injection. The chromatograms show a very different selectivity for the curcumin compounds on the two phases. This difference in selectivity for hydroxy-substituted compounds can be exploited, especially using mobile phases containing acetonitrile.