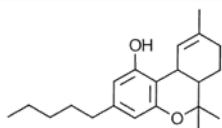


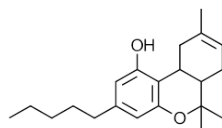
Comparison between Diamond FLARE and Silica Mixed-Mode Columns

HPLC Conditions

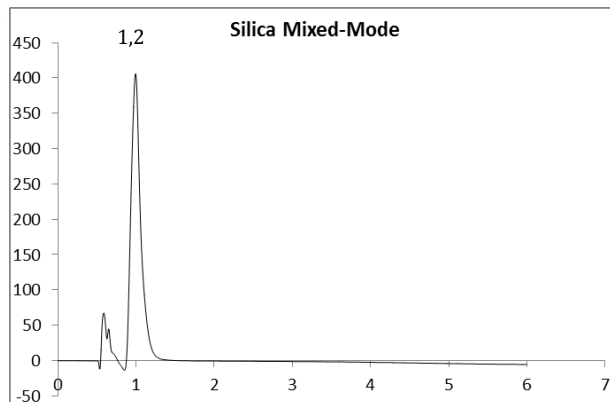
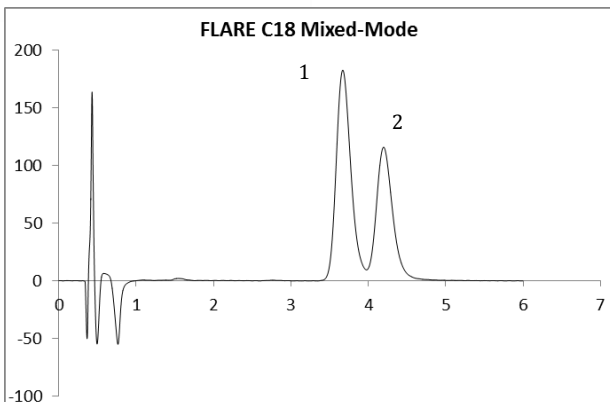
Column Name: FLARE C18 Mixed-Mode, Silica Mixed-Mode Chemistry
 Column Dimensions: 50 x 2.1 mm
 HPLC System: Agilent 1200
 Injection Volume: 2.0µl in ACN
 Detection: UV at 220nm
 Flow Rate: 0.3ml/min
 Mobile Phase: A: 500ml H₂O + 400ml MeOH + 100ml MTBE + 1ml HOAc + 0.2ml TEA
 B: 300ml H₂O + 5,000ml MeOH + 200ml MTBE + 1ml HOAc + 0.2ml TEA
 Temperature: 45 °C
 Analytes:



1. Δ⁹-tetrahydrocannabinol



2. Δ⁸-tetrahydrocannabinol



Notes

Δ⁹-tetrahydrocannabinol is the most notable cannabinoid and an important ingredient in the cannabis plant primarily responsible for its psychoactivity. Δ⁹-THC and Δ⁸-THC are isomers that differ only in the position of a double bond. A 50 x 2.1mm FLARE C18 mixed-mode column is able to baseline resolve these important analytes in less than 5 minutes whereas on a silica-based mixed mode column, the analytes co-elute under equivalent separation conditions.

