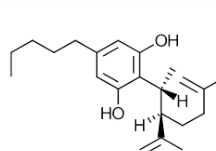
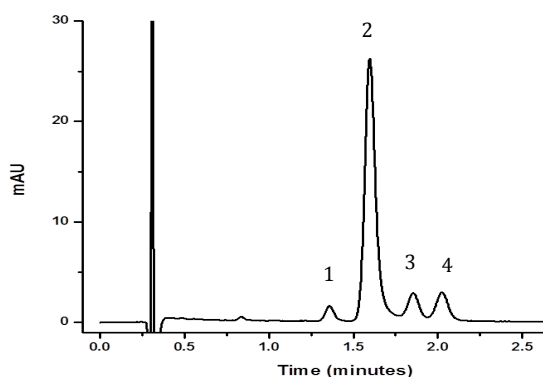


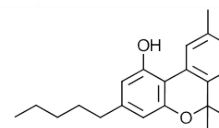
Flare C18 Mixed-Mode Column: Separation of CBN, CBD, Δ^9 -THC, and Δ^8 -THC

HPLC Conditions

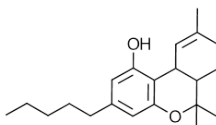
Column Name:	Flare C18 Mixed-Mode
Column Dimensions:	4.6 x 33mm (DA1094-2)
HPLC System:	Agilent 1200
Injection Volume:	1.0 μ l
Detection:	UV at 280nm
Flow Rate:	0.8ml/min
Mobile Phase:	500ml Dioxane + 500ml H ₂ O + 5ml EDA + 5ml Acetic Acid
Temperature:	65 °C
Analytes:	1. Cannabidiol (CBD) 2. Cannabinol (CBN) 3. Δ^9 -tetrahydrocannabinol (Δ^9 -THC) 4. Δ^8 -tetrahydrocannabinol (Δ^8 -THC)



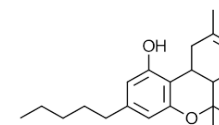
1. CBD



2. CBN



3. Δ^9 -THC



4. Δ^8 -THC

Notes

Δ^9 -THC and Δ^8 -THC are isomeric psychoactive ingredients of cannabis with very similar chemical structures. CBD is not psychoactive, but is present in notable quantities in different cannabis strains. CBN is a resultant product of THC degradation or metabolism and is natively present in small quantities in cannabis plants. A short 4.6x33 mm Flare C18 mixed-mode column is able to baseline resolve these important analytes in less than 3 minutes. With new US regulations and increasing consumer interest for recreational and medicinal purposes, this separation is of high importance and could save analytical labs time and money in their quality control/assurance work.

Acknowledgement: Relevance of separation suggested by Dr. W. Brent R. Pollock, PhD, Prairie Plant Systems Inc.