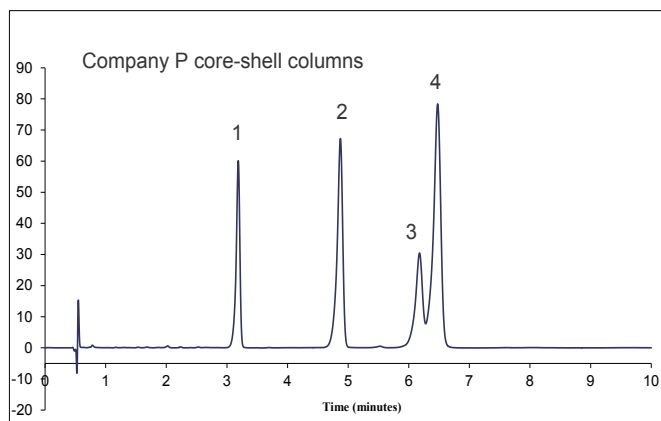
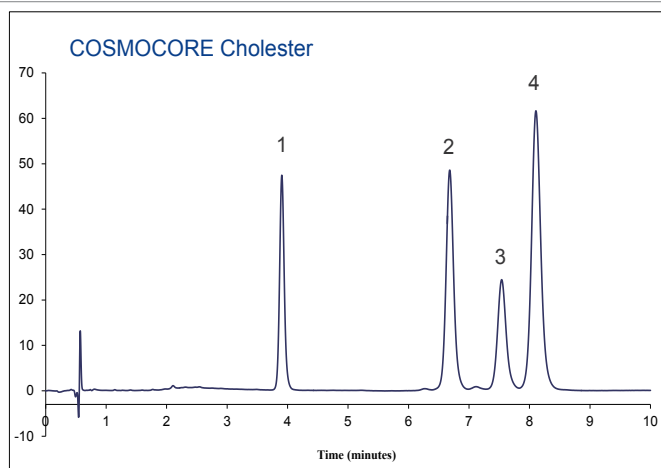


Cannabinoids Analysis

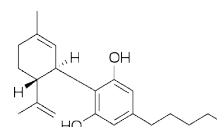
Of the roughly 60 cannabinoids, delta-9-tetrahydrocannabinol (Δ^9 -THC) is the primary psychoactive molecule found in cannabis plants. Δ^9 -THC and its metabolites have been widely studied. Delta-8-tetrahydrocannabinol (Δ^8 -THC) is an isobaric isomer of Δ^9 -THC that differs by the position of a double bond. It has lower psychoactive potency, more chemically stable, and potentially better medicinal properties than Δ^9 -THC. Cannabinol (CBN) is used to monitor the freshness of the sample since Δ^9 -THC easily oxidizes to CBN. Cannabidiol (CBD) has no psychoactive activity but it has many potent medicinal properties. These four cannabinoids, CBD, CBN, Δ^9 -THC, and Δ^8 -THC were analyzed by core-shell HPLC columns.

The C_{18} core-shell column produced co-eluting peaks of Δ^9 -THC and Δ^8 -THC. COSMOCORE Cholester is a core-shell HPLC column that has similar hydrophobicity to C_{18} . The rigid cholesterol group provides it with higher steric selectivity to resolve the Δ^9 -THC and Δ^8 -THC peaks.

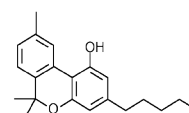


Column size: 2.1 mm I.D. x 100 mm
 Mobile phase: Acetonitrile/0.1% Acetic acid = 65/35
 Flow rate: 0.4 ml/min.
 Temperature: 30°C
 Detection: UV220 nm

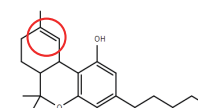
Sample:



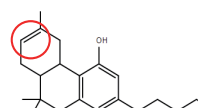
1. Cannabidiol (0.07 μ g)



2. Cannabinol (0.07 μ g)



3. Δ^9 -Tetrahydrocannabinol (0.07 μ g)



4. Δ^8 -Tetrahydrocannabinol (0.07 μ g)

For research use only, not intended for diagnostic or drug use.