Separation of Eight Cannabinoids

With the recent legalization of both medicinal and recreational marijuana in the United States, analysis of individual cannabinoids has captured the public's interest at a new level. As such, many new cannabis products are now available, i.e., edibles, vaporizers, and extracts to name a few. The increased marketability of the product has incited consumers to take a greater interest in the quality and craft ability of the products being sold. Through the quantification of individual cannabinoids, the consumer can make an informed decision about the possible effects they could expect from the products they purchase. Therefore, the need for accurate, robust, and affordable analysis tools are of the upmost importance.

With health, safety, and edibles dosing as the primary motivation, Hamilton Company developed an HPLC method that isolates eight major cannabinoids. The HxSil C18 (3 µm) column provides an accurate, cost effective, and robust solution that can be used in any HPLC system.

Column Information

Packing Material	HxSil, 3 µm
Part Number	79641
Dimensions	150 x 4.6 mm

Chromatographic Conditions

Gradient	0–10 min, 78–92% B 10–15 min, 78% B
Temperature	Ambient
Injection Volume	5 µL
Detection	UV at 230
Eluent A	20 mM NH_4COOH pH 3.5
Eluent B	Acetonitrile
Flow Rate	1.0 mL/min

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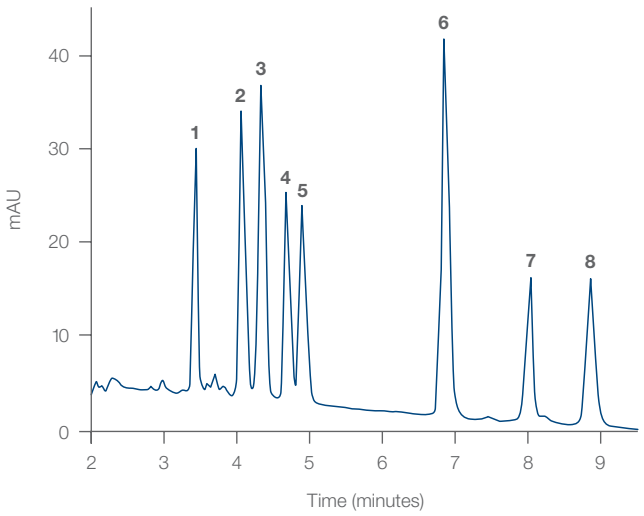

Compounds:

1: Cannabidivarin (CBDV)
2: Cannabidiol (CBD)
3: Cannabidiolic Acid (CBDA)
4: Cannabigerolic Acid (CBGA)
5: Cannabigerol (CBG)
6: Cannabinol (CBN)
7: Δ-9-Tetrahydrocannabinol (Δ-9-THC)
8: Δ-9-Tetrahydrocannabinolic Acid (Δ-9-THCA)

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Lit. No. L80098 — 08/2019