

CANNABINOID EXTRACT PURIFICATION

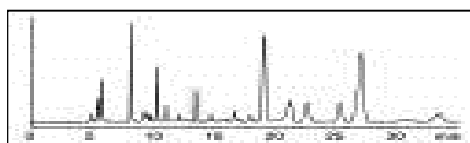
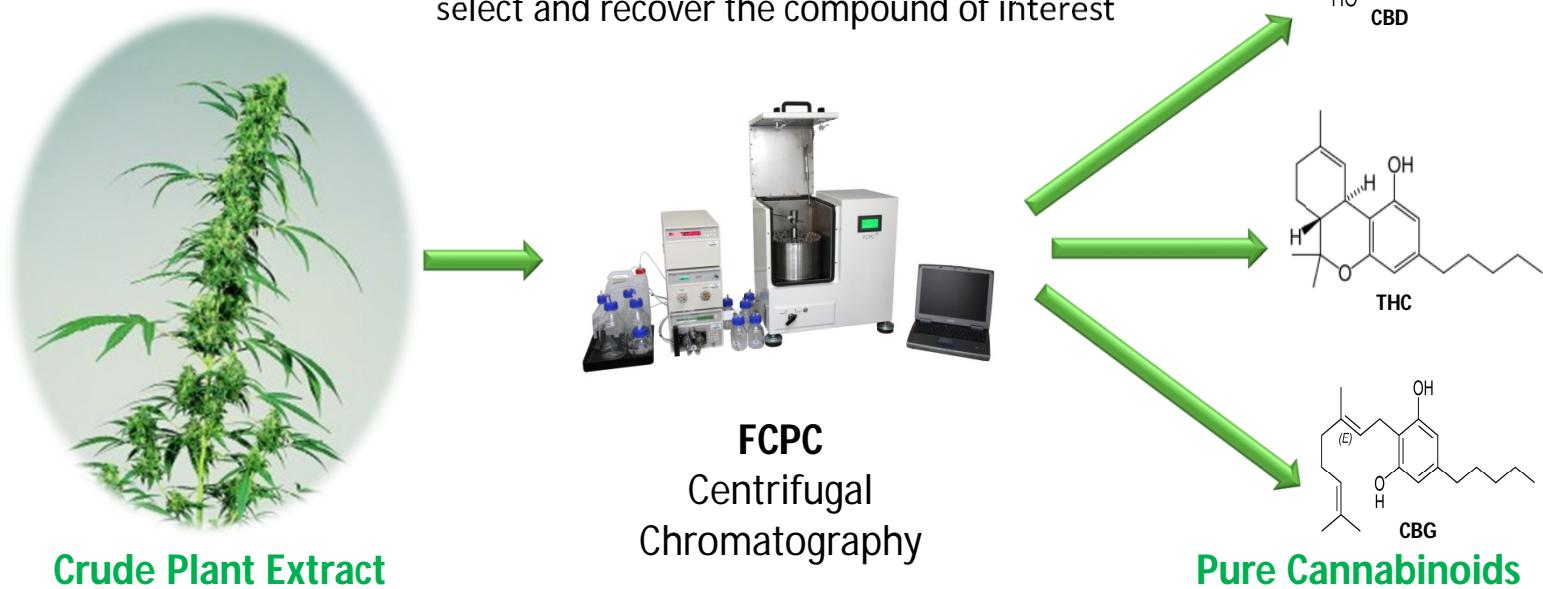
The Cannabis plant has been known for centuries for the medicinal properties of its extracts. As extensive research into its effectiveness as a beneficial therapy for treating chronic diseases or other medical conditions rapidly advances, an interesting approach has been developed to isolate pure fractions of Cannabinoids using Fast Centrifugal Partitioning Chromatography (FCPC).

The process was optimized for methanol extracts containing a mixture of Tetrahydrocannabinol (THC), Cannabidiol (CBD), and Cannabigerol (CBG) and respective isomers. Due to the selective partitioning nature and discrete stage-wise operation of the FCPC device, pure fractions of the constituents with very similar molecular structures can be obtained in semi-preparative, preparative, and production quantities.

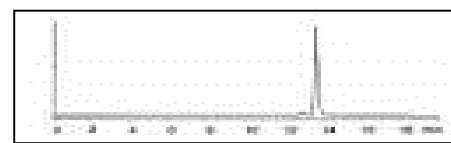
CANNABINOID PURIFICATION

Fast Centrifugal Partition Chromatography (FCPC)

select and recover the compound of interest



GRAPH PROVIDED VIA HPLC



PURIFIED FRACTIONS OBTAINED WITH KROMATON FCPC CENTRIFUGAL CHROMATOGRAPH

Kromaton FCPC® Technology

- **99% Pure** milligrams, grams or kg/day of desired compounds
- **No Packing** material like silica or polymers used in HPLC
- **Complete Recovery** with no loss of compounds by adsorption
- **Flexible Liquid/Liquid** based technology, ascending, descending modes of operation
- **Selective Isolation** using different solvent ranges

The FCPC® is an analytical, semi preparative, and preparative scale chromatograph for the fractionation and purification of a wide range of compounds including:

- Natural Products
- Synthetic Products
- Biological & Botanical Matrices
- Pharmaceuticals

FCPC Features

- Complete sample recovery
- No solid-phase chromatographic material required
- Low solvent consumption
- Many aqueous-2-phase systems possible
- FCPC stations can be run with unlimited combinations of solvent systems to separate either non-polar, polar, or ionic compounds.
- High versatility

FCPC Advantages

- Flexible Operations
 - 3 versatile standard rotor sizes
 - optimized cell designs
 - easily integrated set of peripherals
- Robust and reliable industrial design
 - all stainless steel industrial components
 - heavy duty design with safety interlocks
 - quiet operation
- User friendly
- Simple access to rotor with convenient interchangeability of rotors

Kromaton FCPC® A 200 Centrifugal chromatograph with turn-key feeding and sample collection system.



FCPC® A TECHNICAL SPECIFICATIONS

Application	Analytical	Semi-preparative	Preparative	Extraction
Standard Rotor Volume	50 ml	200 ml	1000 ml	from 300 to 1000 ml
Sample Size	maximum 1 g	maximum 5 g	maximum 30 g	co-current and continuous mode
Flow Rate	up to 10 ml/min	up to 20 ml/min	up to 40 ml/min	
Hydraulic Flow Rate	50 ml/min	100 ml/min	100 ml/min	
Separation Time	10 – 45 min	10 – 45 min	60 – 180 min	
Speed / Max. Pressure	100 to 2000 rpm		80 bars/1160 psi	
Mode	4-way valve for ascending & descending modes			
Standard	EC plate and certificate			
Material	Rotor: stainless steel + PTFE. Wetted parts and frame: stainless steel			
Size / Weight / Power	630 x 437 x H630mm / 115 kg / 750W – 110 or 220 VAC			
Noise	< 60 dB			

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