

Preparative and Process Chromatography by Quattro Centrifugal Partition Chromatography (CPC) & Counter Current Chromatography (CCC), utilising Biphasic, Liquid-Liquid Chromatography (LLC).



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[Quattro CPC + CCC](#)

[Contact Us](#)

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SITE MAP



PHONE: UK 44 (0) 783 876 1524

Quattro CPC & CCC enable Instrumental Liquid-Liquid, Preparative Chromatography and Extraction.

Mass Scales:- Laboratory Scale of Milligrams, up to Industrial Scale of Tonnes Per Annum

- Save ~50-90% process chromatography/extraction, solvent/column costs
- Ideal HPLC-MS pre-prep; no column induced degradation or adsorption
- Uniquely allows infinitely polar to infinitely non-polar prep in one run
- Contract laboratory and process method development services available
- Easily scale-up from micro-gram to your tonne plus process chromatography scale
- Orthogonal selectivity options compared to process chromatography by HPLC/Flash/SFC
- No solubility problems; massive range of solvents available
- IL / SFC / SFC-MS / MS / MS-MS / HPLC / HPLC-MS compatible

- High process chromatography mass loading (typically 5 to 40 g per 1 litre capacity)
- Inject up to 10+ % coil volume without excessive band spreading
- High pressure (1000psi+) + high “G” (80-150)(250)(350+) options
- Only manufacturers of both hydrodynamic & hydrostatic CCC
- New dedicated IONIC LIQUID CHROMATOGRAPHY/EXTRACTION CCC/CPC
- New MULTI-COIL, 2D & 3D DUAL-FLOW CCC/CPC extraction options

Quattro Centrifugal Partition (CPC),
Liquid-liquid Chromatographs from
250 ml to over 50 litres capacity.
Also called Hydrostatic CCC or Sun
Centrifuges.

INTRODUCING QUATTRO CPC



QUATTRO CPC



For Chemical
Preparative and
Process Purifications



Used for natural and
synthetic product
purification and unique
synthesis applications

LABORATORY SCALE QUATTRO CPC & CCC PRICES

Quattro QuikPrep™ / LabPrep™ CPC & CCC units: 120 to 2000ml total instrument volumes. Options of multiple volumes per instrument from 30ml. Price range £27,500 to £87,500.

PREPARATIVE & PROCESS CHROMATOGRAPHY **BY: QUATTRO CPC: -** **LAB TO PILOT, TO TONNES PER ANNUM PROCESSING, SCALEABLE.**

Quattro CPC Offer, Modular Scalable CPC Options. Rotors Precision, Computer Controlled, Multi-dimensional Machined, from Medical Grade 316 Stainless Steel or custom materials, for instrument volumes of 100 ml to over 50 litres capacity

Quattro HPLC Methods Successfully Developed For Clients: -

1. Anti cancer, triple helix polysaccharide, Lentinan in Shiitake Mushrooms.
2. THC, CBD, CBDA, CBG, CBGA, CBC, CBGA and other medicinal cannabinoids.
3. Broad Spectra Engine Oil Additives, investigating composition, from 300 to 500,000 molecular weight.
4. Anti malaria drug from Artemisia.
5. Anti obesity drug from cactus.
6. Anthocyanin profiles of wine grapes.
7. Recovery of target compounds from recrystallization broths.
8. Multiple synthetic pharmaceuticals.
9. High efficiency synthesis by CPC utilising custom, high % ionic liquids.



Visit our website at : <https://www.quattroprep.com>

SCALING UP YOUR LABORATORY APPLICATION TO PILOT OR TONNE PER ANNUM PLUS PROCESS QUATTRO CENTRIFUGAL PARTITION CHROMATOGRAPHY APPLICATION?

PILOT & PROCESS SCALE QUATTRO CPC PRICES FOR CANNABINOID & OTHER INDUSTRIES REQUIRING PROCESS CHROMATOGRAPHY FOR MULTIPLE TONNES PER ANNUM.

OPTIONS FOR QUATTRO CPC:-

AECS can uniquely custom design and build for your specific needs both Quattro CPC & CCC

Customizable, Modular Scalable CPC Design Rotors Precision, Computer Controlled, Multi-dimensional Machined, from Medical Grade 316 Stainless Steel or custom materials, for instrument volumes of 100 ml to over 50 litres capacity.

Special High Percentage, Ionic Liquid Biphasic Solvent Tolerant CPC Designs, have allowed AECS to Increase Synthetic Chemistry Efficiency from 30 to 90+%.



Since 1993 AECS-QuikPrep Ltd, has offered Standard and Unique Customizable, Modular, Scalable, Planetary "J" Type CCC Designs. 30 ml to 2 + litres capacity.

OPTIONS FOR QUATTRO CCC:-

1. Quattro CCC where first to release CCC with 2 mirror image bobbins. Options for 2, 3 or 4 coils.
2. Coil id's 1mm, 2mm, 3.2mm 4.6mm
3. Coil volumes- 30ml, 100, 200, 500, 1000, 2000ml + Custom.
4. Quattro were first CCC to isolate rotor chamber from electrics/electronic, have door safety mechanism.
5. Quattro were first CCC to have temperature control, plus one pass air flow for rotor chamber
6. Quattro CCC first to offer Custom Designs



Visit our website at :- <https://www.quattroprep.com>

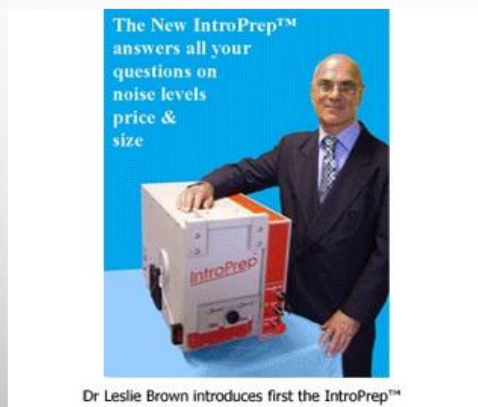
PILOT & PROCESS SCALE QUATTRO CPC PRICES FOR CANNABINOID & OTHER INDUSTRIES REQUIRING PROCESS CHROMATOGRAPHY FOR MULTIPLE TONNES PER ANNUM.

- 1 x 4.8 litres Quattro PilotPrep™ CPC £136,000
- 1 x 12 litres Quattro ProcessPrep™ CPC £187,000
- 2 x 12 litres Quattro ProcessPrep™ CPC £340,000
- 4 x 12 litres Quattro ProcessPrep™ CPC £625,500
- 1 x 50 litres Quattro ProcessPrep™ CPC £650,000

[A GREEN FUTURE FOR LIQUID-LIQUID CHROMATOGRAPHY & EXTRACTION CLICK TO SEE UNIQUE USES OF HIGH % IONIC LIQUIDS IN CCC & CPC. PATENTS GRANTED.](#)

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Quattro Counter Current Chromatographs (CCC) / Liquid liquid Chromatographs (LLC) from 30 ml to over 2 litres capacity. Also called Hydrodynamic CCC or Planetary Centrifuges. See video to understand planetary motion.



[Click to play Quattro CCC slideshow](#)

INTRODUCING QUATTRO CCC



QUATTRO CCC



For Chemical Preparative and Process Purifications

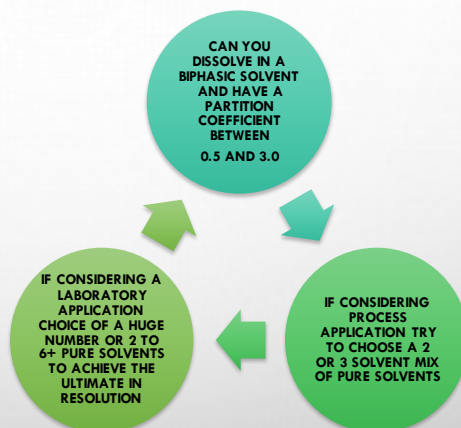


Used for natural and synthetic product purification and unique synthesis applications

See Applications for Ideas on Laboratory and Process Method Development



SUCCESSFUL PURIFICATION



AECS-QuikPrep is undoubtedly the World Leaders in Counter-Current, Centrifugal Partition, Liquid-Liquid, Ionic Liquid Chromatography, and Extraction Synthetic Chemistry.

We manufacture both Hydrodynamic CCC (Planetary CCC, HSCCC, HPCCC, HPL-LC™) and Hydrostatic CCC (Droplet Centrifugal Partition Chromatography, CPC, HPCPC) at scales from 30 ml to 100+ litres. We have units in both research laboratories and process manufacture units throughout the World. We collaborate with Research Institutes / Universities, for both

standard solvents and IONIC LIQUID BIPHASIC CCC/CPC EXTRACTION & CHROMATOGRAPHY RESEARCH PROGRAMME

We can custom build both CCC & CPC unit's specific for your requirements because of our unique modular construction. Options of different CCC bore or CPC cell / chamber sizes, different volumes on the same instrument. We can custom design to accommodate your specific needs, within your budget. Other competitors cannot match our design and build flexibility. Just ask them and us to custom build to your specific needs and budget. We will custom build to match your requirements.



CONTACTING US,
PLEASE GIVE US
YOUR
PURIFICATION
NEEDS, AND
DISCUSS IF YOU
MIGHT NEED A
FEASIBILITY STUDY

AECS@QUATTROPREP.COM

AECS-QuikPrep Ltd has been conducting fundamental liquid-liquid chromatography research since 1993. We have innovated many important liquid-liquid chromatography instrument designs. Others have copied, but never bettered our designs, or vaguely approach the safety features of our instrumentation. Most our research has been for confidential research projects, in the main for Pharmaceutical and Agrochemical Companies. Studies for both synthetic and natural products. We have also co-researched with several major International Government Research Laboratories, plus Universities Worldwide.

Please note our experience dates from 1993 in liquid-liquid chromatography instrument design, manufacture and research. This compares very favourably to many of our present competitor CCC and CPC companies, some of which never even existed in their present form a few years ago. Some are very recent Venture Capital funded start-ups. Others are run by companies that recently purchased failed CPC French competitors. Some competitors sell purified target compound products, that are the equivalent to their client's own products. AECS-QuikPrep Ltd. never does this. If you need a laboratory, or tonne plus, per annum process method, then come to the experts, AECS-QuikPrep Ltd. No other company comes close to AECS-QuikPrep Ltd's experience in method development or guarantees never to compete with you on target compound sales.

Quattro CCC™ Planetary Motion Video (2 bobbins, 4 coils / 3 coil id's). NOTE:- Door safety mechanism disabled for this demonstration video. Set spin speeds are very constant. The video judder is caused by camera/internet technology.

INSERT VIDEO CCC CLIP and scroll above script around video insert.

Novel & New Quattro CPC™: The Sun Motion Rotors can be custom made in Stainless Steel or Titanium etc., for proteins etc.

Quattro CPC instruments can have, 1 or 2 different id cell (chamber) bores, with pressure abilities of 1000+ psi, with typically “on-column” loadings of 5 to 40 g per 1 litre. Quattro CPC is ideal for MAB's, proteins, peptides & enzymes, other organic and inorganic extractions or chromatography purifications. AECS's unique multi-block CPC rotor design offers specification options and tolerance to client induced mistakes causing CPC rotor blockage etc., which means significantly less downtime than any competitor. All Quattro CPC built to ISO 9001

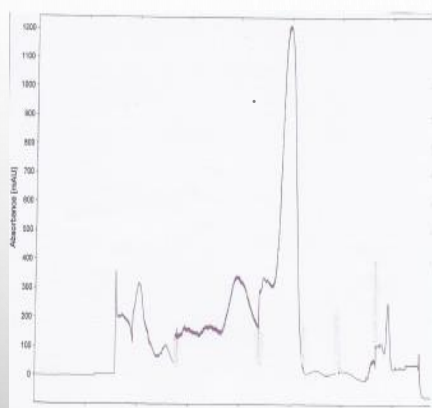
Quattro QuikPrep™ & LabPrep CPC™ Laboratory ~250 ml to 2000 ml, Stainless Steel rotor.

Quattro PilotPrep™ 4.8 litres. May be used in standard laboratories worldwide.

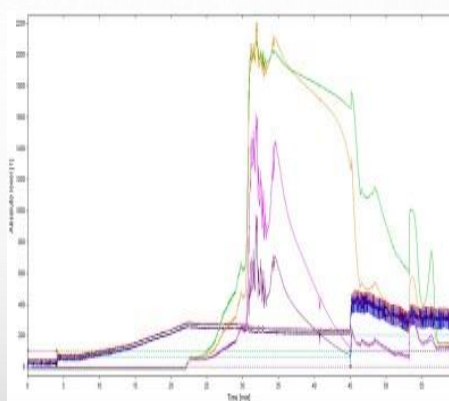
Quattro ProcessPrep™ any volume up to 100's of litres. Must be used in Intrinsically Safe \ Explosion Proof ATEX 1, in Europe or C1-D1 in the USA or Canada.

MEDICINAL CANNBINOID SEPARATIONS

SHOWN BELOW IS A PROCESS ASCENDING CHROMATOGRAPH OF HEMP EXTRACT



Quattro ProcessPrep™ 12
Litre CPC.



Quattro PilotPrep™
4.8 litre CPC.
Ultra high mass loading



Centrifugal Partition Chromatography Medicinal Cannabinoid Chromatographs performed on our clients' samples.

Scale-up Advantages Compared to Competitors

Modular design, and the use of interchangeable components is common in aerospace, car,

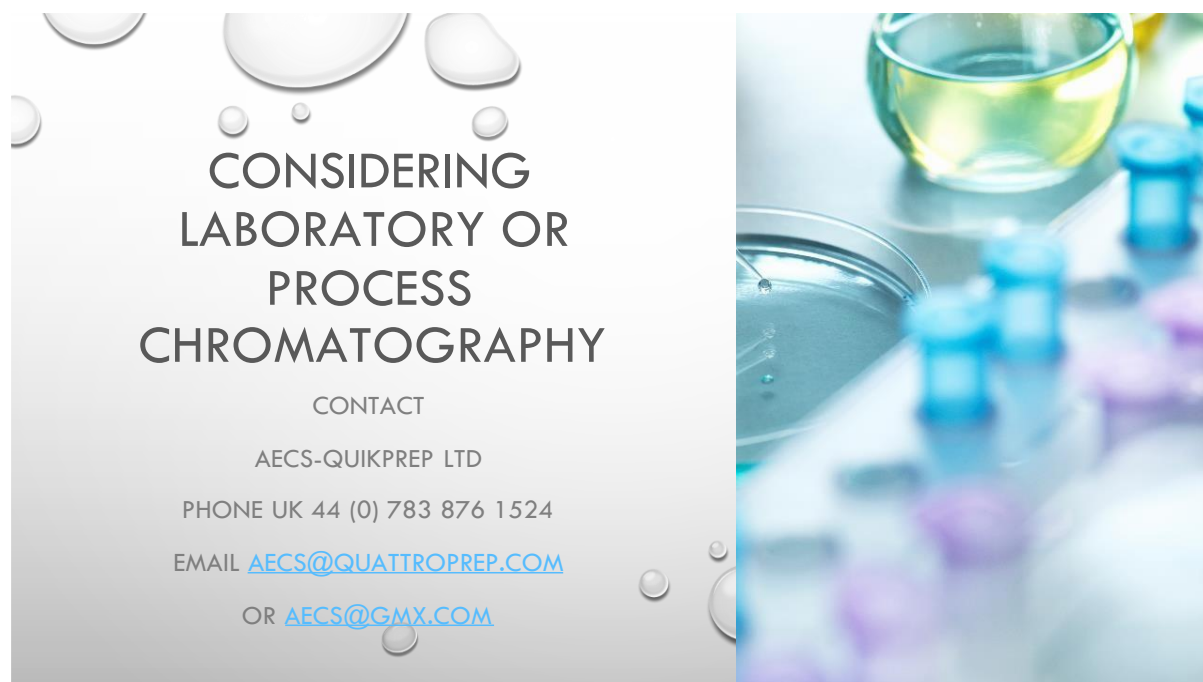
electronics etc industry. But only AECS-QuikPrep has employed this concept to countercurrent chromatography. We did to ensure success in scale-up.

Commercial & Scientific Advantages Compared to Competitors

The AECS brings you both talent and stability. AECS has been trading as same family-owned Company for approximately 38 years. Since 1983 AECS has been doing contract design research for third party instrument companies. Projects included the design of moving belt HPLC-MS, HPLC-FID and HPLC-MPD detectors; evaporative light scatter detectors; the world's first Peltier HPLC column air ovens / chillers, etc. AECS has also helped an USA based HPLC Column Company create completely new HPLC column / phase product lines. AECS has built numerous prototype instruments for Blue-Chip International Companies.

AECS built our first Quattro CCC™ in the early 1990's, when Smith Kline Beecham were not prepared to purchase the then existing CCC / CPC instrumentation, and placed an open-design Purchase Order with AECS for what became the Quattro CCC™ Mk I. They like many others, before and since, trusted AECS's design expertise, and contracted AECS to build an improved design regards to both safety and performance. Since we have designed and built numerous custom Quattro HPL-LC™ for many clients. We offer our client's proven, but ever evolving, commercially relevant CCC / CPC units. We have over 28 years of worldwide LLC commercial trading experience.

Please consider visiting our NEW DEMONSTRATION LABORATORY near Newquay Airport, only 1 hour flight from London Heathrow, and with good connections to many National & International Airports.



**CONSIDERING
LABORATORY OR
PROCESS
CHROMATOGRAPHY**

CONTACT

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