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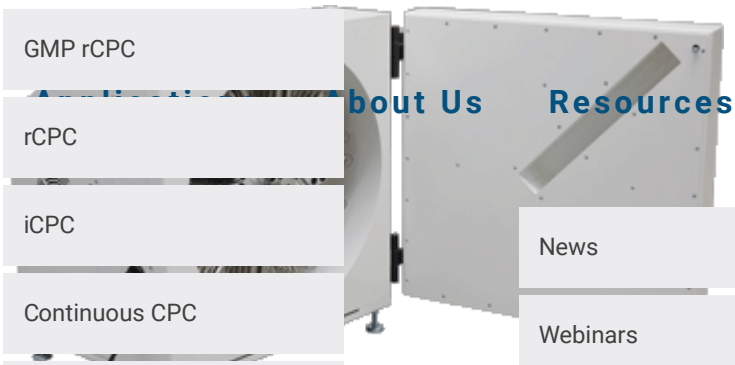

luction to Ch examine the essentials
pects of chr arted with the very
defining chr and then worked our
way up towards more complex topics. Finally, as we wrap up the
series, we arrived at Cen romatography basics.
Our goal is to make chromatography easy to understand, so that
anyone can get a grasp of the subject. So, exactly what is CPC?

So far, we learned many different aspects of chromatography. We examined the downstream process, and chromatography process steps. We learnt what a chromatogram is, and what fraction collection means. This week we will learn the most important elements of Centrifugal Partition Chromatography (CPC).

Are you a chromatography expert already? If so, we have many advanced resources available for you. Click the button to learn more!

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in a two-phase system.

To make use of this tech PC cells (columns) are interconnected in series by ducts attached to a large rotor. This system is then filled with the liquid stationary phase, which is immobilized inside the rotor-cell system by a strong centrifugal force. The other phase of the two-phase system is used as the mobile phase containing the sample which is going to be purified. This liquid is fed under pressure into the rotor and pumped through the stationary phase in the form of tiny droplets.

There are several core advantages of Centrifugal Partition Chromatography over classical, solid support-based preparative liquid chromatograph. Two examples are:

- simplicity of separation mechanism – easy method development and scale-up
- high loadability and recovery – no sample loss due to

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RotaChrom's CPC solutions

RotaChrom has developed a revolutionary preparative purification instrument called Industrial Scale Centrifugal Partition Chromatographic (iCPC) device. This novel system does not utilize any solid stationary phase (such as silica gel) to achieve precision molecular separation and is demonstrably superior to conventional liquid chromatographic techniques in terms of yield and purity. In addition, the iCPC platform has radically reduced the costs and stream method fication challenges.

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Like conventional liquid chromatography, separation of the injected sample is based on the sample component's varying partition coefficients between the mobile and stationary phases. The partition coefficient dictates the amount of time each molecule spends within the mobile and stationary phases and therefore the rate at which each molecule travels through the system. At the end of the purification process automated fraction collectors retain all selected fractions based on the program settings.

RotaChrom designed its top performing CPC cells through Computational Fluid Dynamic simulation software. After thousands of simulations, this tool revealed the drawbacks of conventional CPC cell designs and highlighted the unparallel load capacity and scalable cell design of RotaChrom.

If you're curious about CPC technology, take a look at RotaChrom's Technology page which will give you a head start in the topic.

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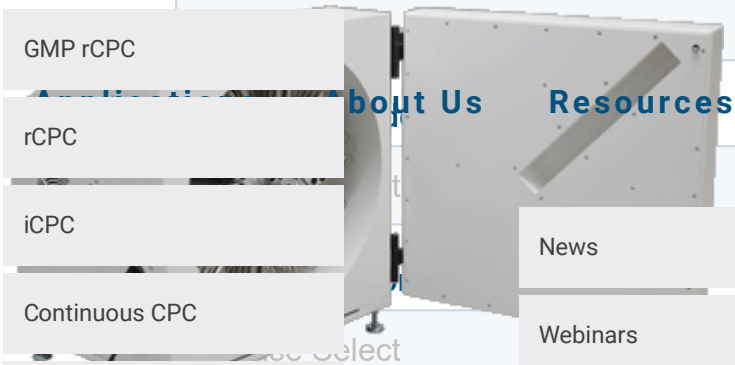

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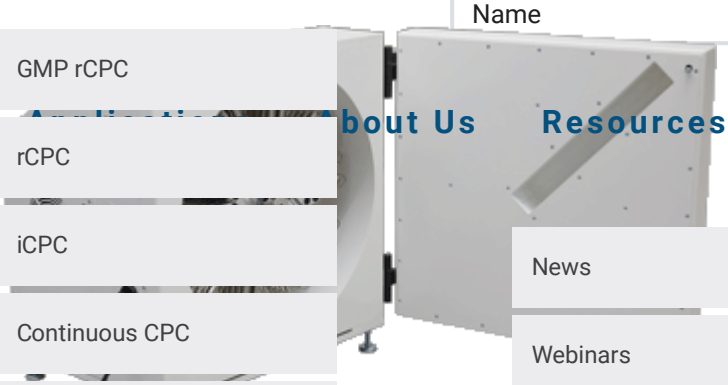

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RotaChrom Technologies LLC (Headquarters)
Csillag street 2/A,
Kecskemet, HU-6000
+36 70 885 6922

RotaChrom North America Inc.
300 Spectrum Center Drive, Irvine, CA 92618
+1 843 781 9210