

New!!! From
ChromSolutions Ltd

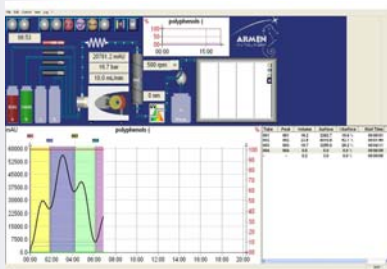
Centrifugal Partition Chromatography (CPC) by Armen Instrument

1. Generalities

Armen instrument is a specialist in preparative and industrial chromatography and propose a large range of instrument from low to high pressure systems. Among those well know systems (flash, HPLC ...) Armen has developed a new range of product based on liquid liquid chromatography : the CPC.

CPC and **prep** HPLC do have some similarities:

- Same objectives : high purification of all kinds of molecule at prep and industrial scales,
- Same fundamental chromatographic process,
- Identical peripherals : pumps, injectors, inline detectors and fraction collector.



Armen Glider CPC Software :
Fully dedicated software for CPC system control

Nevertheless there is a fundamental difference between both techniques: the nature of the stationary phase.

The stationary phase in HPLC is most often made of alkyl chains that need to be solvated by a hydro-organic solvent and coated onto a silica support.

Centrifugal Partition Chromatography **does not require a solid support like silica:** two non miscible phases are used, one as the mobile phase or the eluent and the other as the stationary phase maintained by the centrifugal field. The affinity of the solute for each phase, measured by their partition coefficient, gives their order of elution.

2. Highlights

The volume of stationary phase available (more than 60 %) and the absence of a silica solid means that there are a number of advantages for this technique versus traditional separation methods.

- No column to replace, no silica to recycle, low solvent consumption
- High flow rate, high performances. Purity > 99%, recovery > 90%
- No sample losses : No denaturation, no irreversible adsorption of the sample
- The solvent system can be changed very easily to suit a wide and diverse range of sample types, for example from the purification of petroleum products to proteins.
- TMB (True Moving Bed) : Continuous injection as SMB

This is a powerful alternative technique for milligram to multi kilogram purification

3. Applications fields

Wide & Diverse Fields of Applications!!

- Natural substances :
 - ✓ Essential oil, Chlorophylls, Lipids
 - ✓ Antibiotics from fermentation broths
 - ✓ Alkaloids
 - ✓ Polyphenols
 - ✓ Natural products Screening ...

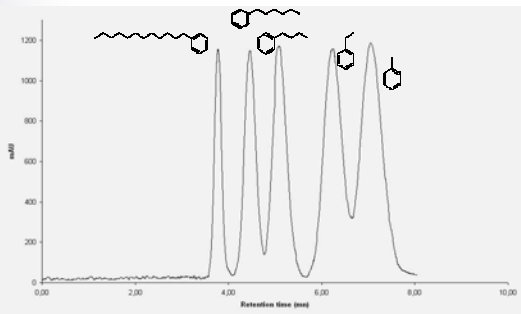


Fig 2 : Multigram purification of alkyl benzene on SCPC1000

- Biotechnologies :
 - ✓ Proteins
 - ✓ Monoclonal Antibodies (mAb)
 - ✓ (Poly)Nucleotides
 - ✓ Peptides ...

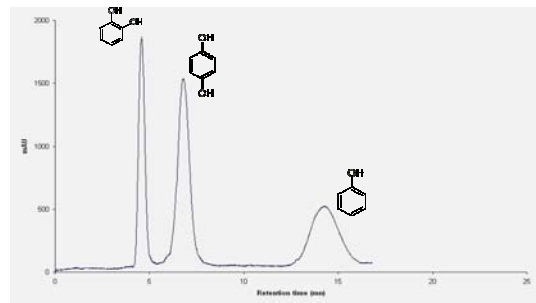


Fig 1 : Multigram purification of Polyphenols on SCPC250

- Synthetic compounds :
 - ✓ from fullerenes to dyes
- Petroleum extract

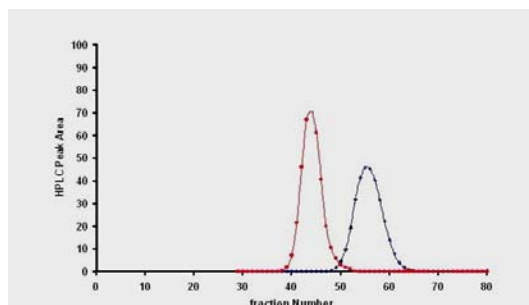


Fig 3 : gram purification of proteins on SCPC-12,5L

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This technology has already been accepted and adopted by the pharmaceutical, nutraceuticals, cosmetics and petroleum industries. Please contact us to evaluate the system or send a test sample.

