#AP39

EPROGEN INC

Analysis of Cationic Polymers

Size Exclusion HPLC using MICRA-Gold CATSEC Columns

SynChropak® Bonding Chemistries

Eprogen's MICRA HPLC columns are designed and manufactured for the analysis and purification of proteins, peptides, polymers, basic and acidic molecules, as well as pharmaceutical compounds.

MICRA HPLC columns are individually tested to ensure premium quality and are based on pure, highly spherical, porous and non-porous silica supports. These columns utilize the classic SynChropak® bonding chemistries to deliver excellent resolution, stability, and reproducibility. Column sizes include 1-30 mm I.D. and 50-300 mm in length. Particle sizes are available in 1.5 to 10µ and pore sizes range from 50-4000 Å.

Featured Columns:

(250 X 4.6 mm I.D.)

MICRA-Gold CATSEC100
Order No. CCS201-25

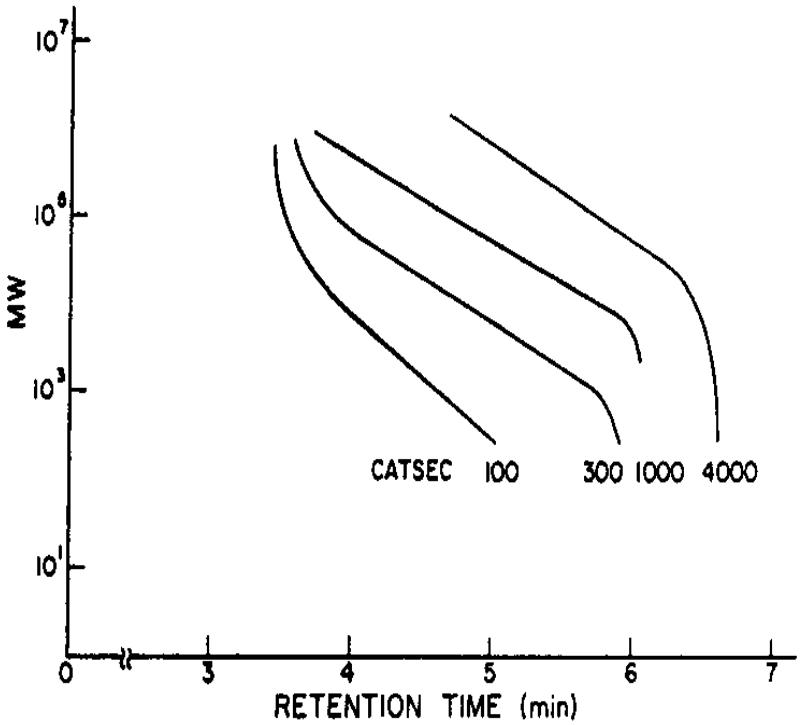
MICRA-Gold CATSEC300
Order No. CCS203-25

MICRA-Gold CATSEC1000
Order No. CCS210-25

MICRA-Gold CATSEC4000
Order No. CCS240-25

MICRA-Gold CATSEC was developed in 1981 for size exclusion of cationic polymers which are difficult to analyze because they typically adsorb on HPLC packings (See reference No.1 on page 2). A polymerized polyamine bonded phase totally covers the silica of MICRA-Gold CATSEC, removing all negative sites. The resultant surface is slightly positive and thus, noninteractive to polyamines which usually adsorb strongly to most surfaces, including glass and metal.

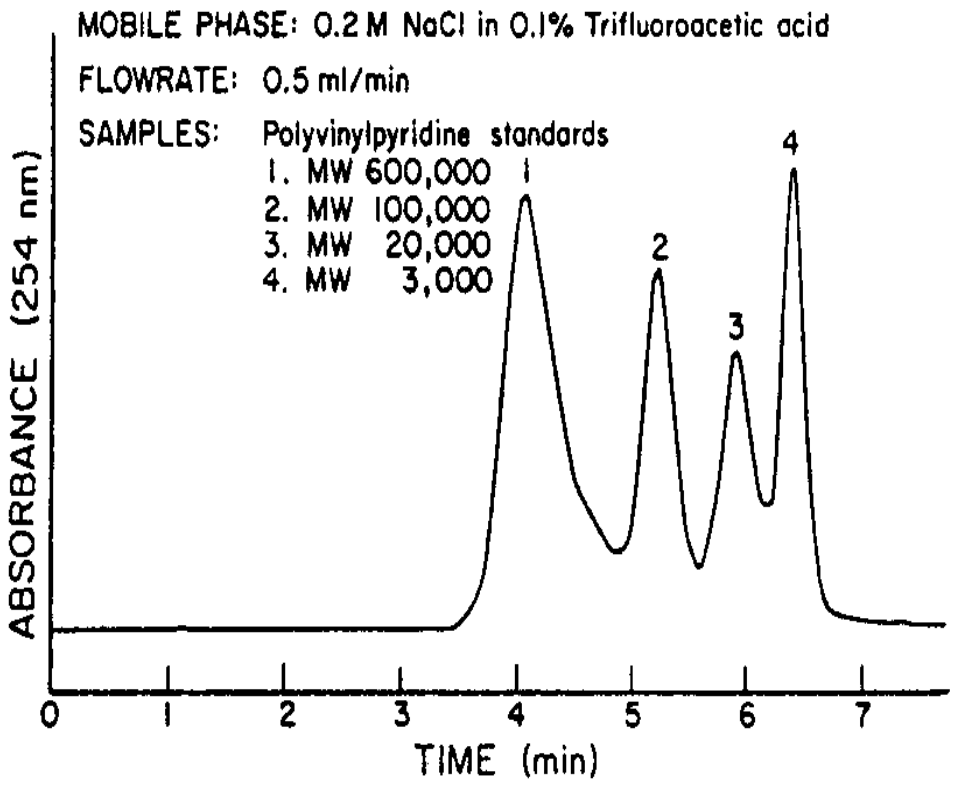
MICRA-Gold CATSEC
Calibration for Polyvinylpyridines



MICRA-Gold CATSEC: Cationic polymer analysis

The MICRA-Gold CATSEC line includes supports with four pore diameters from 100Å to 4000Å, allowing analysis of molecular weights from 10^3 to 10^7. Mobile phases are generally acidic and contain 0.1-0.2M salt to minimize adsorption and ion-exclusion (1,2).

MICRA-Gold CATSEC 1000, 250 X 4.6 mm I.D.
Polyvinylpyridine Standards



CATSEC Column Selection

Molecular Weight Range (Kd = 0.2 - 0.8)

Cationic Polymer MW	Recommended Column
5.0×10^2 - 2.5×10^4	CATSEC100
1.0×10^3 - 1.0×10^5	CATSEC300
4.0×10^4 - 1.0×10^6	CATSEC1000
7.0×10^4 - 1.0×10^7	CATSEC4000

References:

1. D.L. Gooding, et al., J. Liq.Chromatogr., 5 (1982) 2259-2270.
2. D.J. Nagy and D.A. Terwilliger, J. Liq. Chromatogr., 12(9) (1989) 1431-1449.

For more information please request:

26R. "High performance size exclusion chromatography of cationic polymers on a polyamine support", J. Liq. Chromatogr.

T02. "Size Exclusion Chromatography", Technical Note.

Eprogen
8205 S. Cass Avenue
Suite #106
Darien, Illinois 60561
USA
Phone: (630) 963-1481
Fax: (630) 963-6432
E-mail: info@eprogen.com
www.eprogen.com

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