

NOTE NO. 41 - August 30 1993

SPS: COLUMN LIFE AND EFFICIENCY

Analytes: Phenobarbital (160 µg/ml), Carbamazepine (60 µg/ml)

Sample Matrix: Human serum

Sample Size: 10 microliters

Column: 5 micron SPS C8, 15 cm x 4.6 mm ID

Regis Product Number: 785108

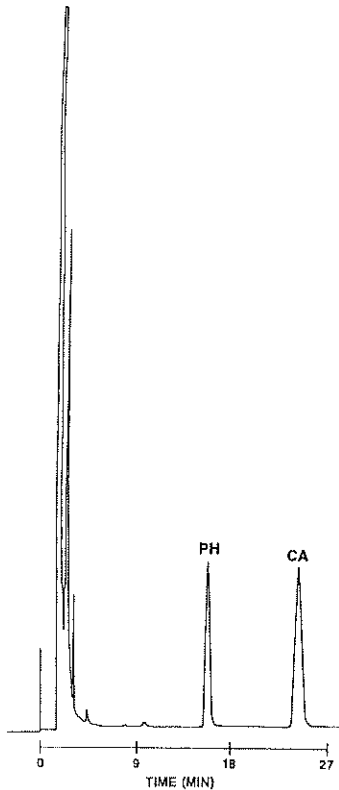
Mobile Phase: 80% 0.1 M KH_2PO_4 (pH 6.8), 20% Acetonitrile
(HPLC grade reagents)

Discussion: The prime RAM column requirement is column life. The chromatogram shown was made on a column that had received 400 injections of serum without buildup in backpressure or change in performance. The 27-min retention of the over-60,000-plate-per-meter carbamazepine peak is at least 50% greater than that of any other RAM material.

Detection: 254 nm, 0.1 AUFS

Flow Rate: 0.6 mL/min

Note: Sample filtered through 0.2 µm membrane prior to direct injection



References: (1) Glunz, L. J.; Perry, J. A.; Invergo, B.; Wagner, H.; Szczerba, T. J.; Rateike, J. D.; Glunz, P. W. J. *Liq. Chromatogr.* 1992, 15, 1361-1380. (Reproduced by permission of Dekker, Inc., copyright holder.)

John A. Perry, Ph.D., Riis Terrasse 13, 2007 Kjeller, Norway.