

New Applications-Focused Technical Reprints in the Waters Literature Center (Part 1)

Eight new technical publications have been added to the Waters Literature Center. All are reprints of technical papers published by Waters personnel during the past few years. To aid the appropriate distribution of this information, a brief description of each new literature piece is provided below.

**WT-101 An Inexpensive Experiment for the Introduction of High
Performance Liquid Chromatography**
[Journal of Chemical Education, 61 (1984) 716]

The basics of LC (resolution, selectivity, efficiency, etc.) are explained in the context of the separation of the red and blue dyes from grape drink. The simple experiments provided require only a Sep-Pak[®] cartridge and a Luer-tip syringe, and use non-toxic samples and eluents. This paper complements the Sep-Pak cartridge promo (P/N 88253) which has been distributed at a number of road shows.

WT-105 Guidelines for Proper Usage of Solid-Phase Extraction Devices
[LC-GC Magazine, 2 (1984) 578]

A practical discussion which should be of interest to all new users of Sep-Pak cartridges. The effects of flow rate and sample loading on performance are considered in some detail. This brief reprint should be a useful follow-up for customer inquiries, complementing the information provided in the Sep-Pak Bibliography.

**WT-104 On the Need for "Wide-Pores" in the Reversed-Phase
Liquid Chromatographic Separation of Proteins**
[Journal of Liquid Chromatography, 8 (1985) 619]

A survey of commercially available "wide pore" reversed phase packings is described, including comparisons on the basis of retentivity, resolution, peak width and sample capacity for proteins. Pore size was clearly important for sample capacity, but "narrow pore" materials such as μ BondapakTM C₁₈ offered excellent resolution of proteins. Experimentally measured pore sizes were not always in agreement with the manufacturer's claim, with one "wide pore" material having an average pore diameter of 81Å.

WT-106 **PITC Derivatives in Amino Acid Analysis**
[Nature, 320 (1986) 769]

A brief presentation of the Pico-Tag™ methodology for the determination of hydrolyzates as well as free amino acids.

WT-111 **Amino Acid Analysis of Submicrogram
Hydrolyzate Samples**

[K. Walsh, editor, "Methods in Protein Sequence Analysis 1986", Humana Press:
Clifton NJ, 1986]

An introduction to the Pico-Tag method for the analysis of hydrolyzate amino acids. Practical issues addressed include derivative stability, resolution, analysis time, response linearity, and sources of sample contamination. Analyses based on as little as 500 ng of protein are discussed.

WT-110 **A New, Rapid, High-Sensitivity Analysis of Amino
Acids in Food Type Samples**

[J. Assoc. Off. Anal. Chem., 70 (1987) 241]

The Pico-Tag method is applied for the analysis of amino acids in feeds, cheese, soy flour and other samples. Sample preparation is described in detail.

WT-107 **Separation of Ionic Compounds by Reversed-Phase
Liquid Chromatography: An Update of Ion-Pairing Techniques**
[Journal of Chromatographic Science, 18 (1980) 525]

A thorough discussion and review of the principles and application of eluent modifiers, particularly PIC® reagents and amine modifiers such as Reagent D-4. This reprint will be valuable for the moderately experienced chromatographer who is considering the use of PIC reagents, since many applications are presented.

WT-103 **Reversed-Phase, Ion-Pair Liquid Chromatography**
[LC-GC Magazine, 1 (1983) 344]

A review-type, abbreviated version of the above report, focusing on the retention mechanism for separations based on ion pairing.
