



Get "FAME"ous!

Restek's new FAMEWAX" column for fast and efficient FAME analysis.

Current methods for the analysis of fatty acid methyl esters (FAMES) have been designed using Carbowax" columns that provide a specific elution order and separation of polyunsaturated fatty acids (PUFAs) in 35 to 50 minutes. Restek's new 0.25 and 0.32mm ID FAMEWAX" columns can provide necessary baseline resolution for complex PUFA samples in less than 22 minutes! 0.53mm ID FAMEWAX" columns are also available for concentrated FAME samples and for conversion from packed to capillary columns.

Capillary column performance requirements for PUFA analysis are specified in AOCS and AOAC methods. The American Oil Chemists Society (AOCS) Method CE 1b-89 "FAMES analysis by capillary GLC" requires baseline resolution of C21:5n3 and C23:0 (internal standard [IS]) and C24:0 and C22:6n3 (DHA). The Association of Official Analytical Chemists (AOAC) Official Method #991.39 "Fatty Acids in Encapsulated Fish Oils and Fish Oil Methyl and Ethyl Esters" requires the same elution pattern as Carbowax" 20M and additional resolution of C23:0(IS) from C22:4n6.

FAMEWAX" columns meet all the criteria listed in the methods in significantly less time, with faster flow and temperature program rates than other Carbowax" columns. The menhaden oil PUFA analysis in Figure 1 shows that C21:5n3 and C23:0 (IS) are well resolved, as are C24:0, C22:6n3 (DHA) and C24:1n9 with a total analysis time of only 22 minutes. Figure 2 shows the same analysis on the Supelco Omegawax" 250 column with identical GC conditions. Peaks C21:5n3 and C23:0 are not baseline resolved, nor are C22:6n3 and C24:1n9. To achieve resolution of these components on

Figure 1 - Menhaden Oil PUFA on a FAMEWAX" Column

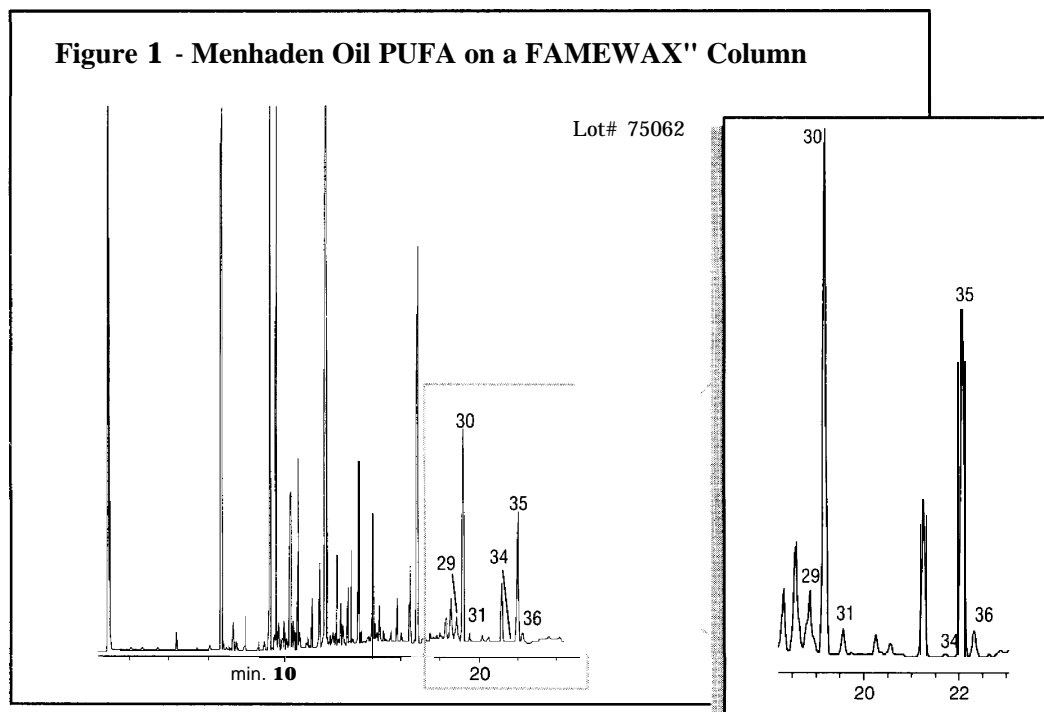
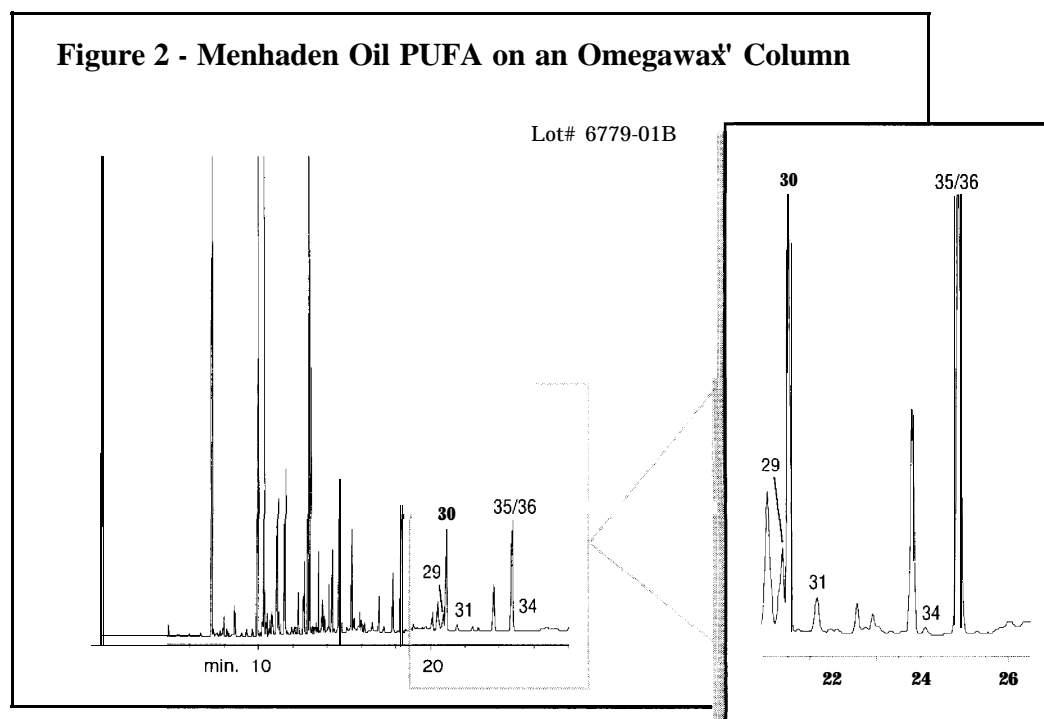


Figure 2 - Menhaden Oil PUFA on an Omegawax' Column



the Omegawax" column, the program rate must be decreased to 2 or 3°C/minute, increasing analysis time by 59%!

The 30m, 0.32mm, 0.25µm FAMEWAX" column also meets the criteria for PUFA analysis. Larger diameter 0.32mm ID col-