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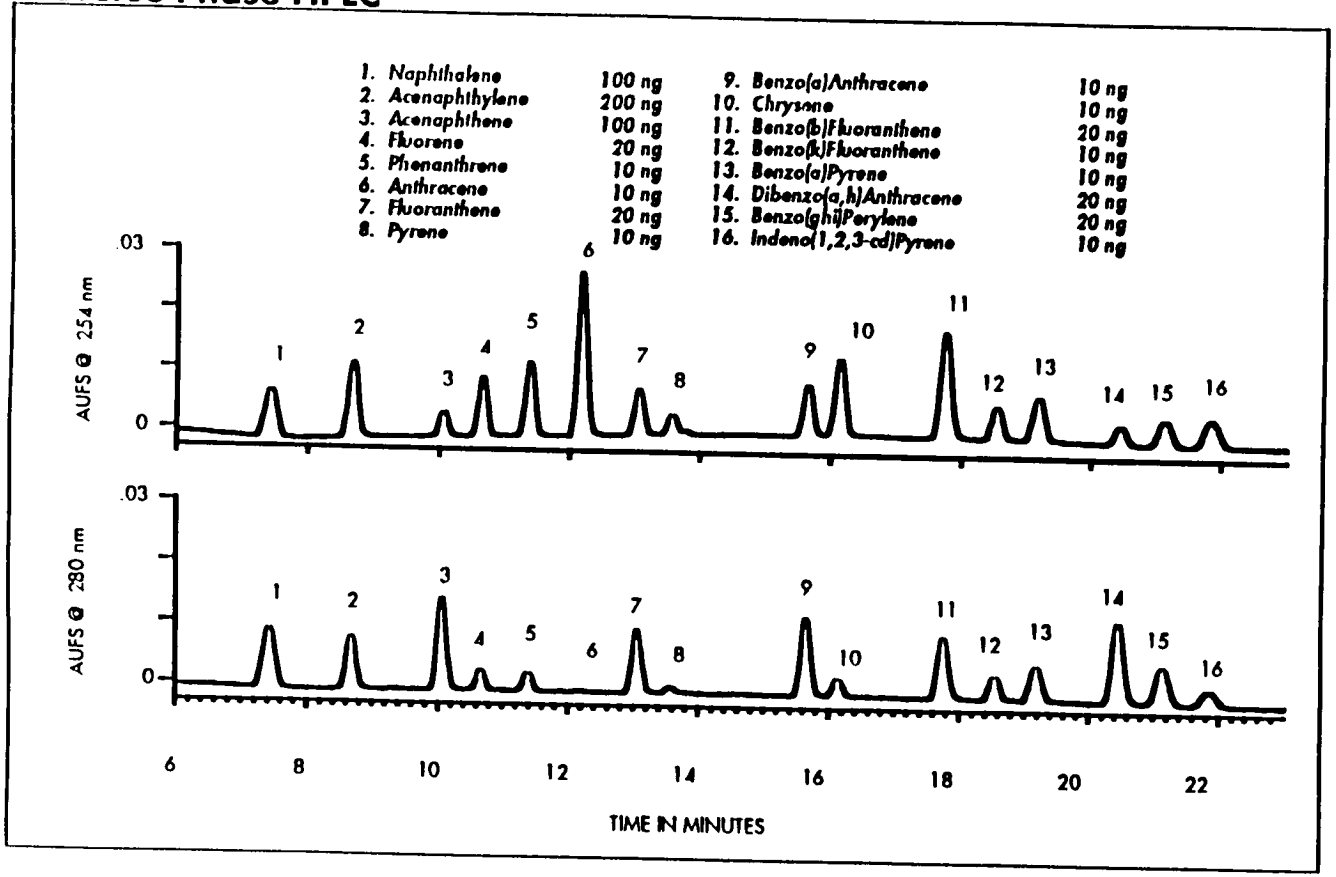
Rapid Analysis of Polynuclear Aromatic Hydrocarbons (PAH's) by Reverse Phase HPLC



Conditions:

Column: Supelcosil LC - PAH Column, 4.6x150 mm

Eluents for gradient analysis:

Eluent A: 40/60 H_2O/CH_3OH
Eluent B: CH_3CN

Gradient: Linear from A to B in 15 minutes

Flow Rate: 1.0 ml/minute

Detection: UV at 254 nm and 280 nm 0.03 AUFS

Injection Volume: 5 µl

Concentration: 50 to 1 dilution of Supelco PAH MIX 610-M Standard

Sample Preparation: dilution in CH_3CN

The analysis of Polynuclear Aromatic Hydrocarbons (PAH's) from environmental sources, both air and water, has for many years been of tremendous concern. The above application shows the ability to rapidly perform these determinations utilizing reverse phase gradient HPLC conditions on a Supelcosil LC - PAH column, a C_{18} column which has been designed to have good selectivity for this particular application. The sample analyzed was a diluted, commercially available standard at the levels described in the details section of this note. One benefit to the gradient conditions employed is baseline resolution of all of the 16 priority pollutants as listed in EPA Method 610 which is not always accomplished by use of the manufacturer's recommended conditions.

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