

# Poly Aromatic Hydrocarbons

Determination of PAH using  $\mu$ HPLC and Laser Induced Fluorescence Detection

## Instruments:

HPLC pump: Agilent 1100 series + LC Packings  
Acurate™ Flow Splitter  
Injector: LC packings Famos Automated Injector  
Detector: Picometrics ZETALIF 2000 detector  
Laser: He-Cd Laser, 325 nm, 15 mW

## Sample:

Standard solution of mixed PAH in water

## Reagents:

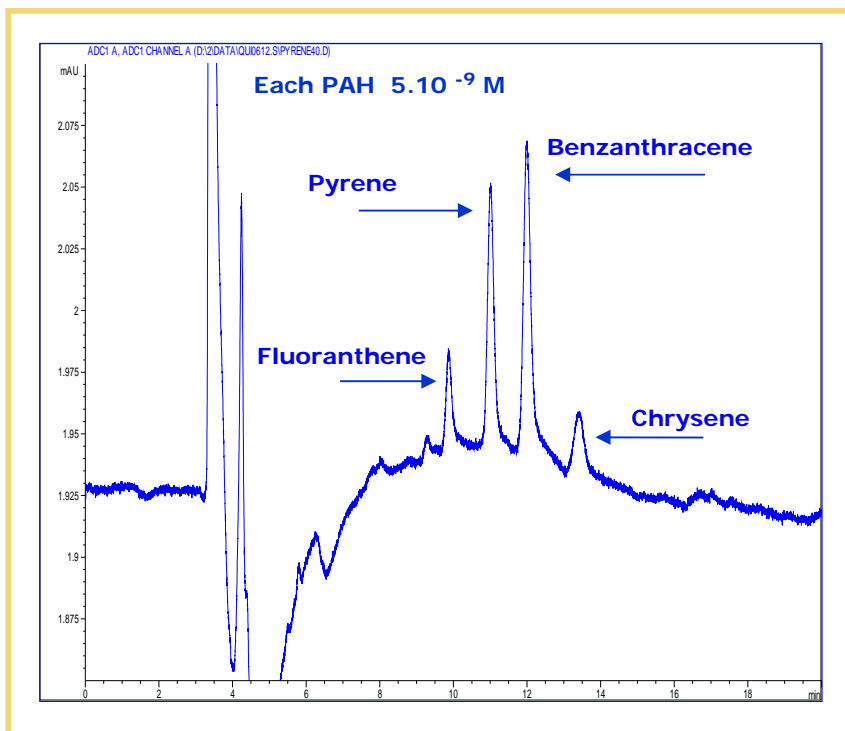
None (Naturally fluorescent compounds)

## Methods:

Mobile Phase: Acetonitrile/water (91/9 v/v)  
Flow rate: 4  $\mu$ L/min (0.4 mL/min at the pump)  
Injection volume: 1  $\mu$ L (i.e.  $5 \cdot 10^{-15}$  moles)  
Column: micro column LC Packings PepMap™, C18,  
3  $\mu$ m, 300  $\mu$ m ID  
Detector Capillary: 50  $\mu$ m ID

**Limit of Detection\*:**  
 $5 \times 10^{-10}$  M (for Pyrene)

\* Estimated for a S/N of 3



Source: Picometrics application lab.