

High Performance Liquid Chromatography (HPLC)

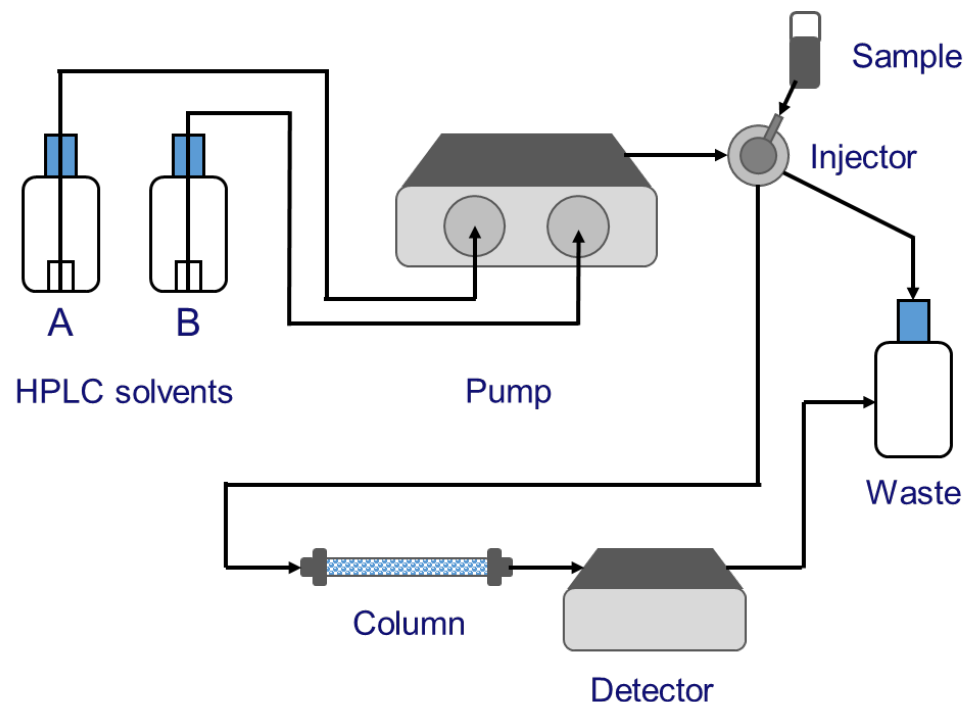
Agilent, 1100 and 1200 Series



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Introduction

HPLC is an analytical technique for the separation, identification and quantification of solutes in a solvent.



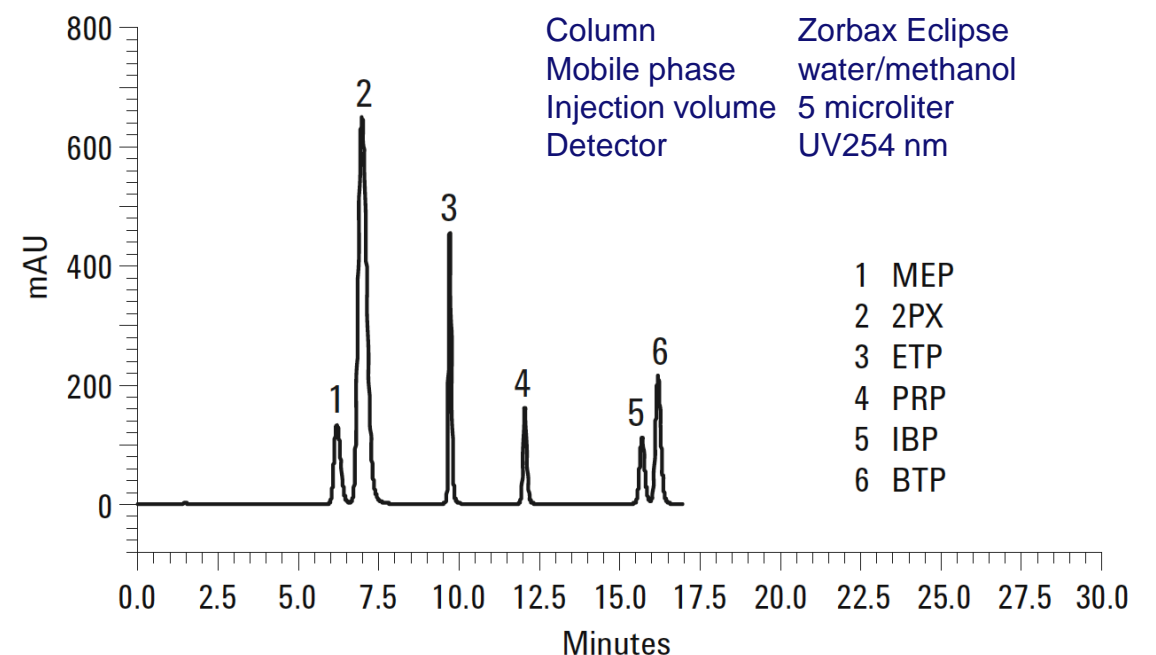
Principle

Differences in the relative affinities of molecules for the mobile phase and the stationary phase separate a sample into its constituents. The eluent can be a single solvent (isocratic) or a mixture with changing composition (gradient). There are three main operational modes: normal phase - based on polarity; reversed phase - based on hydrophobic interactions and ion exchange - based on electrostatic interactions.

Applications

- Identification and quantification of solutes and components.
- Micropollutant detection
- Membrane performance evaluation

Each component is associated with a peak characteristic retention time. The concentration is proportional to the integrated peak area.



HPLC chromatogram for analysis of parabens.