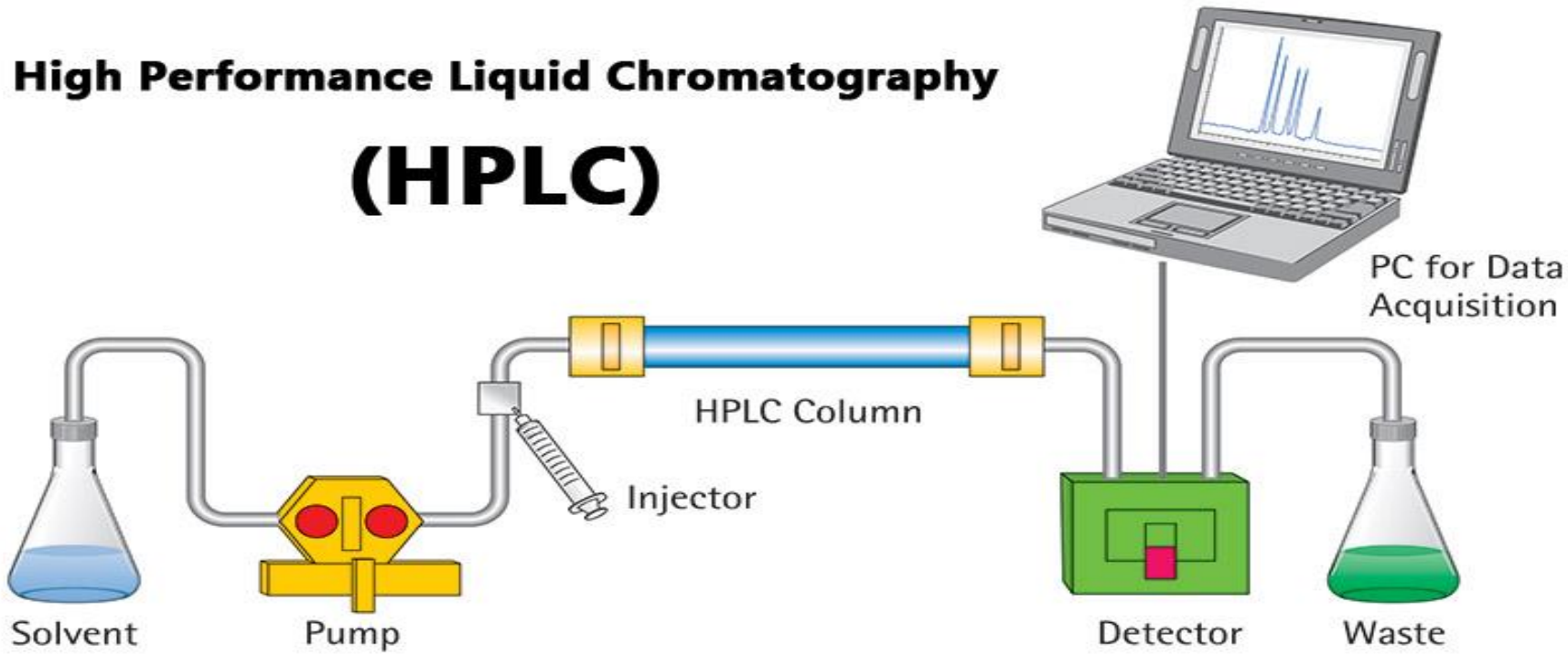
LIQUID CHROMATOGRAPHY

Introduction

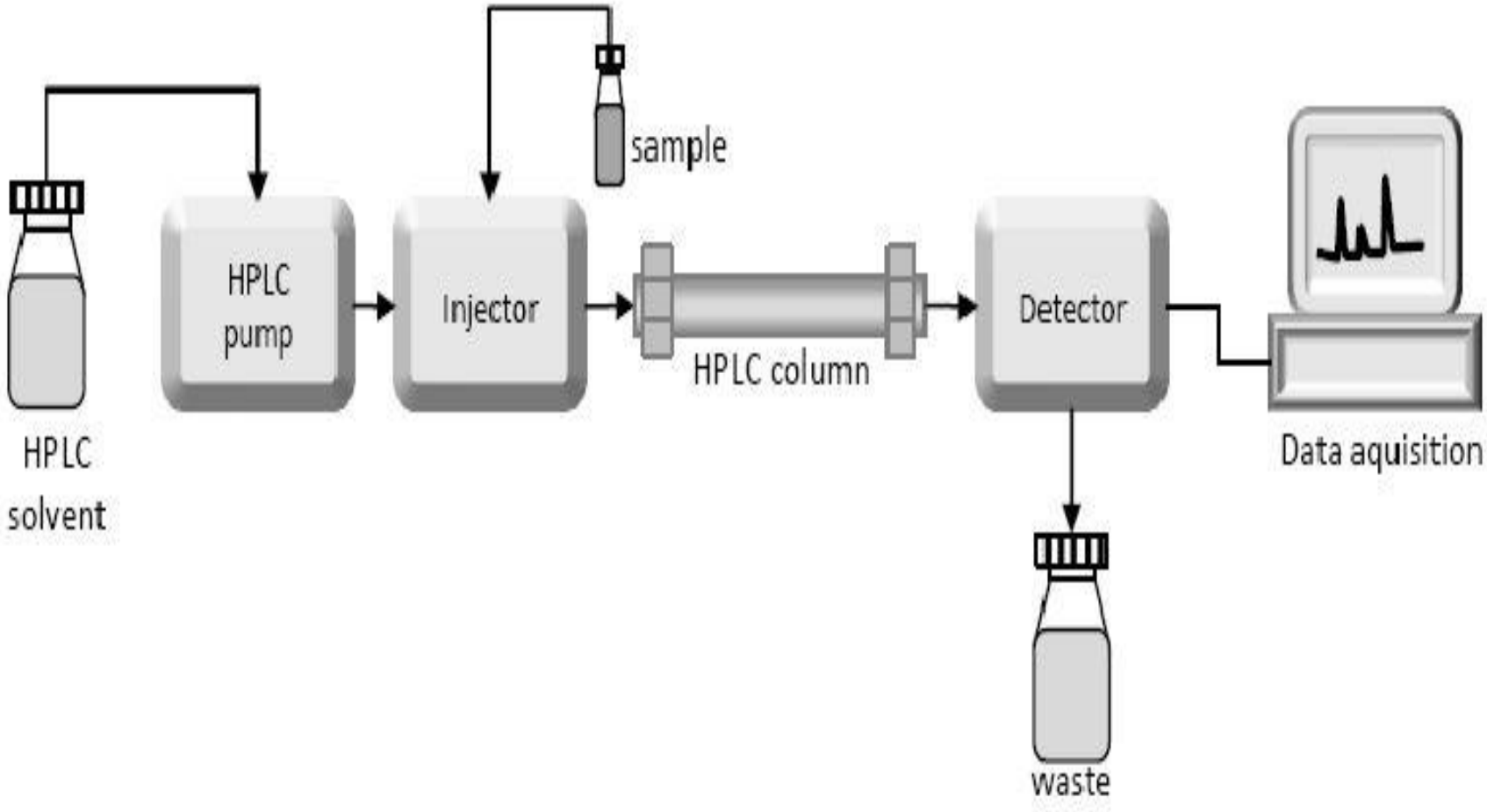
- *Liquid Chromatography (LC)* is a chromatographic technique in which the mobile phase is a liquid
- LC can be applied to the separation of any compound that is soluble in a liquid phase
- The separation occurs based on the interactions of the sample with the mobile and stationary phases.
- Liquid mobile phase allows LC to be used at lower temperatures than required by GC

High Performance Liquid Chromatography (HPLC):

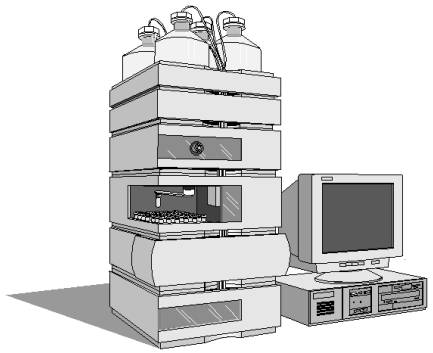
- Higher operating pressures need for mobile phase delivery requires special pumps and other system components
- Sample applied using closed system (*i.e.*, injection valve)
- detection uses a flow through detector



Instrumentation of HPLC



The Chromatogram



t_o - elution time of unretained peak

t_R - retention time - determines sample identity