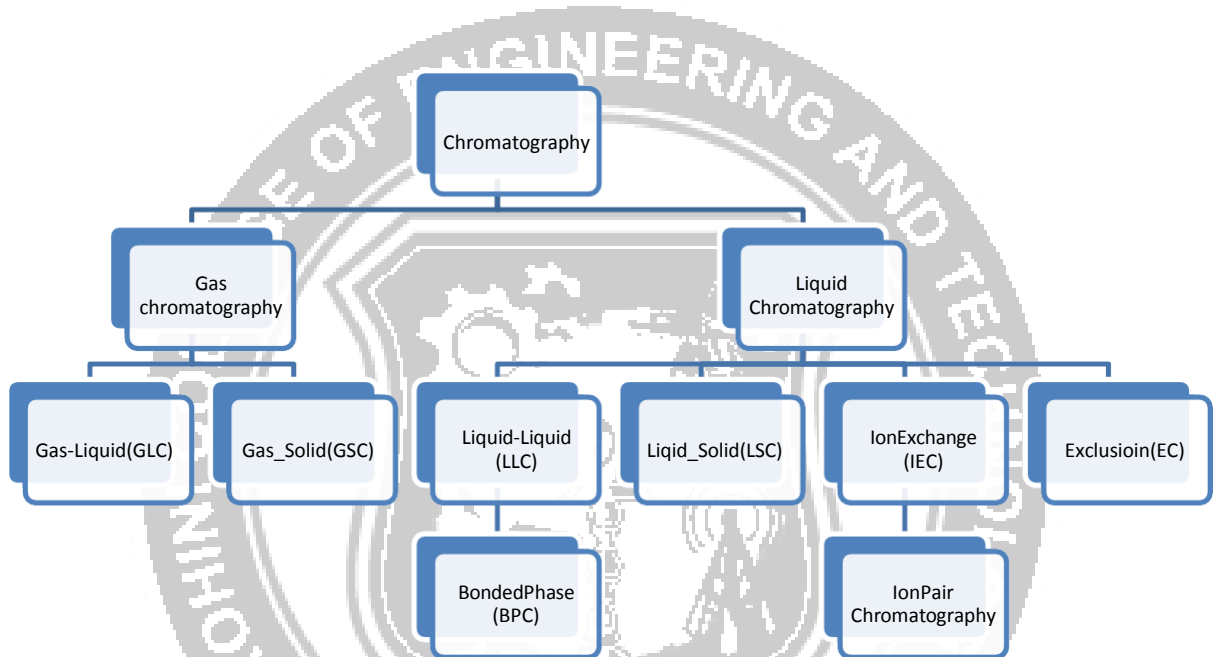


CHROMATOGRAPHY

chromatography is a physical method of separation of the components of a mixture by distribution between two phases, of which one is stationary bed of a large surface area and other fluid phase (Mobile phase) that percolates through or along the stationary bed.

Types Of Chromatography



Retention Time

The retention time is the total time that a compound spends in both the mobile phase and stationary phase.

The time between sample injection and an analyte peak reaching a detector at the end of the column is termed as the retention time (t_R).

Gas Chromatography

Gas Chromatography is an analytical technique used for separating compounds based primarily on their volatilities. Gas chromatography provides both qualitative and quantitative information for individual compounds present in a sample.

The Types Of Columns Used In Gas Chromatography

- Packed
- Column Capillary
Column

- Flame Photometric Detectors

The Advantages of Gas Chromatography

- High flow rates of mobile phase is possible
- Several methods of detecting components in flowing gas stream are available

Efficiency in Chromatography

The efficiency is related to the number of compounds that can be separated by the column. It is expressed as the number of Theoretical plates or as the highest equivalent to a theoretical plate.

High pressure pumps are used in HPLC

Liquid chromatography consists of columns with packing, through which the mobile phase and the sample flows. The packing in the column reduces the flow rate of the mobile phase. In order to ensure constant flow rate high pressure pumps are used to pump the mobile phase into the column.

