

Gas Chromatography is an analytical technique used to separate and identify chemical compounds in a mixture. Common detectors include Flame Ionization Detector (FID), Thermal Conductivity Detector (TCD), and Electron Capture Detector (ECD). Carrier Gas: An inert gas (like helium or nitrogen) carries the vaporized sample through the column. This technique relies on the distribution of sample components between two phases: the stationary phase and the mobile phase. 1. Separation: As the sample travels through the column, different components separate based on their interactions with the stationary phase and their boiling points. Detection: After separation, the components exit the column and are detected by a detector. The column is coated with a stationary phase that interacts with the sample components. 2. 3. 4. 5. e phase