GC Columns

MN o ers more than 40 di erent phases for gas chromatography from very nonpolar to polar columns. Nonpolar stationary phases (e. g. 100 % dimethylpolysiloxane phases) separate by volatility (i. e. boiling point) only. Typical analytes are linear hydrocarbons (n-alkanes). Polar phases o er additional interactions, which may improve a separation. When increasing the polarity, e. g. by introducing phenyl and / or cyanopropyl groups, separation is increasingly infl uenced by di erences in dipole moment and by charge transfer e ects (e. g. for 5 – 50% diphenylpolysiloxane phases). Typical analytes are hydrocarbons, which contain oxygen, sulphur, nitrogen, phosphorus or halogen atoms, unsaturated molecules which can be polarised and aromatics. For components featuring di erent hydrogen bonding capacities and the ability to form strong hydrogen bonds, polyethylene glycol phases (WAX) are the best choice for a separation. Typical analytes are alcohols and carboxylic acids. Selectivity has to be optimized for the critical pair of components or for the main component. You should always select the least polar column which solves your separation task. About 70 % of all separations can be performed on non- to midpolar columns. These columns generally feature high temperature stability.

- OPTIMA® - high performance capillary columns
- PERMABOND® - capillary columns
- Derivatization reagents for GC

Columns for special GC separations:

- Enantiomer separation
- Fast GC

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