

#### 9.2.1.4 Classification According to the Physical State of the Mobile Phase

Chromatographic techniques are often classified by specifying the physical state of *both* phases used.

Accordingly, the following terms are in use:

Gas-liquid chromatography	(GLC)
Gas-solid chromatography	(GSC)
Liquid-liquid chromatography	(LLC)
Liquid-solid chromatography	(LSC)

The term *Gas-Liquid Partition Chromatography* (GLPC) can also be found in the literature. However, often distinction between these modes is not easy. For example, in GC, a liquid may be used to modify an adsorbent-type solid stationary phase.

#### **Gas Chromatography (GC)**

A separation technique in which the mobile phase is a gas. Gas chromatography is always carried out in a column.

#### **Liquid Chromatography (LC)**

A separation technique in which the mobile phase is a liquid. Liquid chromatography can be carried out either in a column or on a plane.

*Note:* Present-day liquid chromatography generally utilizing very small particles and a relatively high inlet pressure is often characterized by the term *High-Performance* (or *High-Pressure*) *Liquid Chromatography*, and the acronym HPLC.

#### **Supercritical-Fluid Chromatography (SFC)**

A separation technique in which the mobile phase is a fluid above and relatively close to its critical temperature and pressure.

*Note:* In general the terms and definitions used in gas or liquid chromatography are equally applicable to supercritical-fluid chromatography.