

stationary phase

in chromatography

One of the two phases forming a chromatographic system. It may be a solid, a gel or a liquid. If a liquid, it may be distributed on a solid. This solid may or may not contribute to the separation process. The liquid may also be chemically bonded to the solid (bonded phase) or immobilized onto it (immobilized phase). The expression chromatographic bed or sorbent may be used as a general term to denote any of the different forms in which the stationary phase is used. Particularly in gas chromatography where the stationary phase is most often a liquid, the term liquid phase is used for it as compared to the gas phase, i.e. the mobile phase. However, particularly in the early development of liquid chromatography, the term 'liquid phase' had also been used to characterize the mobile phase as compared to the 'solid phase' i.e. the stationary phase. Due to this ambiguity, the use of the term 'liquid phase' is discouraged. If the physical state of the stationary phase is to be expressed, the use of the adjective forms such as liquid stationary phase and solid stationary phase, bonded phase or immobilized phase is proposed.

Source:

PAC, 1993, 65, 819 (*Nomenclature for chromatography (IUPAC Recommendations 1993)*) on page 823

See also:

Orange Book, p. 98