

distribution isotherm

in chromatography

The equilibrium relation between the concentration of a sample component in the stationary phase c_S , and in the mobile phase c_M , expressed as a function $c_S = f(c_M)$.

Note:

The relation can be influenced also by concentrations of other sample components. c_S and c_M are usually expressed per unit volume of the phase; c_S may also be expressed per mass of the dry solid phase or per unit surface area.

In some versions of chromatography, a distribution isotherm can be seen as a partition isotherm, an adsorption isotherm, or a combination of these, depending on the mechanism of separation.

Source:

PAC, 1996, 68, 1591 (*Nomenclature for non-linear chromatography (IUPAC Recommendations 1996)*) on page 1592

This definition supersedes an earlier definition of distribution isotherm *in chromatography*.