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About Definition of Sorption Chromatography

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1. The Definition of Sorption Used at Present and Some Remarks

According IUPAC Recommendations [1], **"Chromatography is a physical (1-?) method of separation (2-?) in which the components to be separated are distributed between two phases (3-?), one of which is the stationary (stationary phase) while the other (the mobile phase) (4-?) moves in a definite direction (5-?)" [(1-?)-(5-?)** *are the author's questions***]**.

Some propositions of this definition are unclear and questionable: 1) along with physical, very often chemical factors play a significant role in many chromatographic methods [2,3], therefore chromatography is physicochemical method; 2) the chromatography is also the method of determination of physicochemical characteristic of chromatographic system and chemical compounds [4,5]; 3) very often chromatography is not two-phases methods but polyphases method (for example, gas-liquid chromatography is actually a gas-[liquid-solid] method [6]; 4) in chromatography there are variants in which two phases are moving [7,8]; 5) the macro-concept "movement" is characterized by vector magnitudes, therefore the part of definition ("the mobile phase moves in a definite direction") is unnecessary.

2. The Proposed Definition of Sorption Chromatography

The author proposed the two-stage definition of chromatography. It was founded on using of the concept of the chromatographic phenomenon [9].

Chromatographic sorption phenomenon is formation and change of concentration zones of compounds (particles) in a flow of a mobile phase relative to sorbents which selectively interact with components (particles) of the analyzed mixture

Sorption chromatography is a scientific discipline (field of science) studying chromatographic sorption phenomenon and developing methods for its practical application

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