VALUATION OF THE COMPOSITION OF MOTIONLESS LIQUID PHASES ON THE BASIS OF RETENTION PARAMETERS IN THIN LAYER CHROMATOGRAPHY

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The predicting calculations of the retention value in gas liquid chromatography on the basis of parameters of structure-group forming require accurate quantitative composition of Motionless Liquid Phase (MLP). From the point of view valuation of MLP composition is an actual.

In connection with it the current work has been devoted to valuation of composition of MLP on the basis of retention parameters.

The composition of MLP has been characterized on the basis of parameters of size and interaction of structure-group forming “sorbat-sorbent” system. For the valuation of chosen parameters of UNIFAC equation that is to say that has been comparatively solved energetic parameters \((a_{nm}, a_{nm})\) of interaction. In this coefficient of activity of components has been expressed by retention index.

The valuation of composition of MP has been carried out by Seminox method of Nilder-Mid. It has been valued composition of number of cyancontaining (1,2,3-tris-\(\beta\)-cyanetoxipropane, \(\beta,\beta\)-oxidipropionitril, 1,2,3,4,5,6-hexacyanetoxihexane, 1,2-di-\(\beta\)-cyan etoxiethane), polyfunctional, siloxsan (Lestosil, SE-30, OV-225) MLP.

Predicting calculations on found parameters allow to reduce calculation error by 2-3 times.