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THEORETICAL MODELS APPLIED ON SIZE EXCLUSION CHROMATOGRAPHY

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The first chromatography model was the plate model by Martin and Synge. They divided the chromatography column into plates where the equilibrium between mobile and stationary phase is formed and the correctly recognized that a longitudinal concentration profile is formed which can be in, ideal case, described by the binomial distribution. Further progress was made by describing the elution curve by negative binomial distribution which predicts, e.g., increase in skew and excess kurtosis of the elution curve near the exclusion limit. Currently is the plate model applied on the description of the concentration phenomena in size-exclusion chromatography.

Biography

Miloš Netopilík has completed his PhD at the age of 30 years from Institute of Macromolecular Chemistry and postdoctoral studies from Virginia Polytechnic Institute and Technical University. Now, he works in Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic and works in the theory of separation. He has published more than 68 papers in reputed journals. Research interests are Size exclusion chromatography with multiple detection, mechanism of separation, light scattering

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