

Separation characteristics of adenine and cytosine in high performance liquid chromatography (HPLC)

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The growing interest in recombinant DNA technology require the application of fast and reliable methods of utmost sensitivity and selectivity for the analysis of nucleic acid compounds. High performance liquid chromatography (HPLC) is effective analytical technique for the separation of complex mixture.

Adenine and cytosine, that is the structure component of nucleic compounds were separated on C18 column in HPLC systems and detection was performed by UV absorption at 270 nm. To find adsorption isotherms of adenine and cytosine, we carried out pulsed input method (PIM) in C18 column. Adsorption isotherm is calculated by Aspen chromatography, and compared with the simulation for separation of adenine and cytosine.