

ABSTRACT

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Title of diploma thesis : **Rapid quantification of acetylsalicylic acid using HPLC chromatograph**

In this work, a simple method of quick assessment of acetylsalicylic acid with the use of high-performance liquid chromatograph (HPLC) equipped with an UV detector set to the wavelength 265 nm was described and validated. The mobile phase was composed of methanol and water in the ratio 10:90. The temperature was set to 25°C, injection 10 µl and the flow rate adjusted to 0.3 ml/min. The method was validated by the following parameters of validation – linearity: $r = 0.9999$, accuracy: 100.88 % yield and repeatability: standard deviation 1.01%. The resulting values of validation were compared with the validation parameters of a method using a typical spectrophotometer. It was proved that both methods provide reliable results. However, the analysis with the use of HPLC proved to be quicker and simpler.