

## **ABSTRACT**

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Title of Diploma Thesis: Determination of Degradation Product of Tetracaine hydrochloride by Ultra-High-Performance Liquid Chromatography

This diploma thesis deal with using UHPLC for determination of tetracaine hydrochloride and its degradation products, p-aminobenzoic acid and p-n-butylaminobenzoic acid. Separation was achieved by using Kinetex 5  $\mu$  XB- C18 100A column and the eluent, acetonitrile-buffer, when buffer containing water with phosphoric acid (pH=2.2) at a flow rate of 1.7 ml/min. Gradient elution was chosen, which began at 35 % of acetonitrile, in the second minute rised to 95 % of organic phase, and then descended to 35 % in the fourth minute. Ethylparaben was used as an internal standard. The wavelengths 300 nm for tetracaine hydrochloride and its degradation products, and 240 nm for internal standard were chosen for detection. Validation approved that this method provides accurate and precise results.