

# ABSTRACT

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Title of Thesis    **Monitoring of changes of contents of effective substances according to the preparation process of the medicinal product Coldrex Hot drink**

The High Performance Liquid Chromatography suitable conditions for the separation of effective and adjuvant substance in the medicinal product Coldrex Hot drink and some of their degradation products were found.

The particle analytical column LiChroCART LiChrospher RP-18e (250 x 4 mm; 5 µm) was used for achievement of optimal results. A mobile phase composed of methanol : phosphate buffer pH 6.52 in ratio 35 : 65 (v/v), the flow-rate 0.5 ml/min, the sample volume 10 µl, the isocratic mode and laboratory temperature were chosen. The UV detection was set at 210 and 265 nm. Salicylic acid was used as an internal standard. Substances were eluted in the following order: citric acid, ascorbic acid, p-aminophenol, phenylephrine, paracetamol, salicylic acid.

The most suitable water temperature used as a solvent for medical product in which the solution contains highest concentrations of effective substances was found.

The decomposition of effective substance was monitored during the respective time after preparation, achieved results were studied and some recommendations have been proposed.