

Abstract

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Title of Diploma Thesis: Using of HPLC for illegal colorants determination in foods.

This thesis deal with looking for optimal conditions for determination of Sudan dyes.

High performance liquid chromatography (HPLC) was used for determination.

During searching several various columns and mobile phases were tested.

For validation of separation conditions Ascentis Express F5 column (100 x 4,6 mm, 2,7 μm) was used. Detection was measured at a wavelength of 500 nm and 426 nm.

Separation used gradient elution with mobile phase of acetonitrile – water at a flow rate 1 ml/min. Injection volume was set to 5 μl . During measuring validation parametres was used on-line SPE extraction in HPLC system on precolumn Ascentis Express C18 (5 x 4,6 mm, 2,7 μm) with washing mobile phase 5% solution of acetonitril - water before separation. Optimalization and validation used only standards and method was suggested for other testing and using real samples.

Keywords: high performance liquid chromatography (HPLC), Sudan dyes