

ABSTRACT

Charles University in Prague

Faculty of Pharmacy in Hradec Králové

Department of Analytical Chemistry

Consultant: Doc. RNDr. Dalibor Šatínský, PhD.

Diploma Thesis Title: The method development for determination of diazodinitrofenol explosive

A new HPLC method for determination of diazodinitrophenol alongside with sodium picramate was developed and optimized. Column Ascentis® Express C18 10cm x 3mm; 2.7 μ m particles was select as most suitable one. Detection of compounds was performed at 220 nm using UV detector. Mobile phase consist of mixture 0.085% H₃PO₄ and acetonitrile in ratio 70/30. Flow rate was determined at 0.8 ml/min. Column oven temperature was set to 50°C. Retention times under these condition was $t_{DDNP}=1.324$ min a $t_{PicNa}=4.012$ min.

Keywords: determination, diazodinitrophenol, sodium picraminate, HPLC, chromatography, dinol, DDNP