



The 8th International Conference on Pharmaceutical Sciences and Pharmacy Practice

**dedicated to the 80th anniversary of the
Museum of History of Lithuanian
Medicine and Pharmacy**

Book of abstracts



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propenyl)-L-Cysteine (GLUPeCs), γ -Glutamylphenylalanine (GLUPheAla) were identified. After activating alliinase, allicin (diallyl thiosulfinate) was identified as well. The chromatograms of other 4 supplements did not have corresponding chromatographic profiles.

Conclusions. This HPLC method is suitable for qualitative evaluation of sulphur compounds in dry garlic extract. The results show that only 2 supplements comply with the requirements of chromatographic profiles. There is a possibility that either amount of garlic extract in other 4 supplements is smaller than indicated on the label or the manufactures use other substances instead of garlic extract.

References:

1. Li L, Sun T, Tian J et al. Critical reviews in food science and nutrition 2013; 53(7):670-681.
2. Arnault I, Christidès JP, Mandon N et al. Journal of Chromatography A 2003; 991(1):69-75.



HPLC determination of sinigrin content in field penny-cress extract

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At carrying out pharmacological studies the presence of antibacterial, anti-inflammatory and prostate protective activity was determined for the thick extract of field penny-cress herb. According to the literature data these types of activity are typical for sinigrin. Thus, determination of sinigrin content in the thick extract of field penny-cress herb was of great interest [1].

The weigh sample of the thick extract of field penny-cress herb (0,018 g) was placed into a 20 ml glass, where water was added, and the extract was dissolved on a magnetic stirrer at the temperature of 50°C. In 30 min the obtained solution was filtered through nylon filter with pore size 0.45 μ m and immediately injected to the chromatograph. The chromatography process was carried out using the UHPLC analyzer DionexUltiMate 3000 with spectrophotometric detector, pump, thermostat, degasser, and Chromeleon™ Chromatography Data System software [2, 3]. Chromatograms of sinigrin determination in the thick extract of field penny-cress herb and a sinigrin standard sample are given in the Fig. 1.

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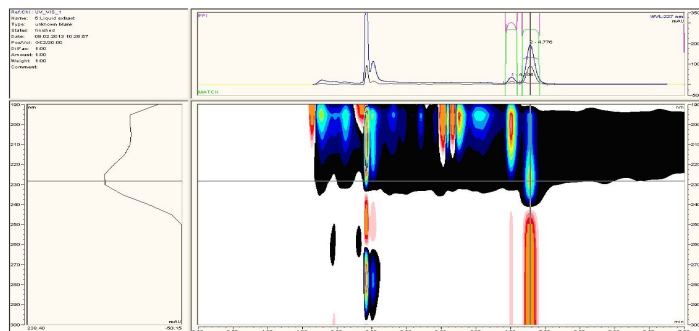


Fig. 1. HPLC determination of sinigrin in the thick extract of field penny-cress herb

Results of sinigrin content determination in the thick extract of field penny-cress herb is shown in the Table 1.

Table 1. Sinigrin content in the thick extract of field penny-cress herb

Solution	Average peak area	Sinigrin content in the thick extract, mg/ml	Sample weight, g
Sinigrin standard sample	46.4340	7.02	0.018
Thick extract of field penny-cress herb	25.4209		

As a result of the study the thick extract of field penny-cress herb was found to contain 7.02 mg/g of sinigrin, which was 0.70 % calculated on the dry residue.

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