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## Investigation of Flavonoids Presence in Houseleek, *Sempervivum tectorum* L.

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Houseleek is one of the 150 plant species belonging to the *Crassulaceae* family which authentically grow in Mexico. It has been cultivated in Europe since IX century as decorative plant as well as medicinal plant. Due to the fact that it has not been enough investigated from a chemical point of view, its usage today is limited to folk medicine.

Literature reports that the leaves contain organic acids, mucilage, tannins, oils, resins, sugars and traces of alkaloids. Aims of this work are to give more information about the qualitative and quantitative presence of flavonoids in this very widespread plant species.

Leaves, flowers and fresh juice of *Sempervivum tectorum* L. were investigated. Qualitative analyses were performed by thin layer chromatography under following conditions: silica gel GF254 plates, Merck, Germany; mobile phases: 1) ethyl acetate-formic acid-glacial acetic acid-water (100:11:11:20), 2) *n*-butanol-formic acid-glacial acetic acid-water (60:15:15:20); visualisation UV<sub>366</sub> and UV<sub>254</sub>, spray reagents 1% methanolic solution of diphenylboriloxylethylamine.

Quantitative analyses were performed according to European pharmacopeia directive for spectrometric quantification of flavonoids.

The presence of flavonoids in leaves and juice of Houseleek was detected in thin layer chromatography. No flavonoid derivatives were detected in samples of Houseleek flower. The separated spots from samples of Houseleek leaves corresponded to the standards quercetin and hesperidin.

The quantity of flavonoid derivatives calculated as hyperoside was determined by spectrophotometry as follows: dried leaf 0,56%, leaf with juice 0,06% and filtered juice 0,01%.

- [1] Kovač-Bešović EE, Durić K. Thin layer chromatography-application in qualitative analysis on presence of coumarins and flavonoids in plant material. Bosn J Basic Med Sci. 2003; 3: 19–26. PMid:16232145
- [2] Nyredy Sz. Planar Chromatography, A retrospective View for the Third Millenium, Springer Scientific Publisher, Budakalász, 2001. Hungary.