

MORPHOLOGICAL AND CHEMICAL STUDIES OF HERB OF PORTULACA OLERACEA L.

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Garden purslane *Portulaca oleracea* L., genus *Portulaca* L., family *Portulacaceae* Juss., order *Caryophyllales*. Annual herbaceous succulent plant.

The stem is 10-35 cm high, glabrous, fleshy, reddish, stretched, often pinned to the ground or ascending, branched from the base. The leaves are alternate, upper nearly opposite, sessile, cuneate-oval or oblong-cuneate, obtuse on the top, narrowed to the base, fleshy, 1-2 cm long and 0.5-1 cm wide. Stipules scarious, often reduced to small setae. Flowers solitary or 2-3, sitting in the stem-branching or in the leaf axils, 8-12 mm in diameter. Ovary is semi-inferior. Sepals 2, falling at fruiting. Obovate petals 4-6, yellow, caducous, the column with linear stigmas deeply divided into 3-6 branches, 6-15 stamens. Fruit - ovoid capsule up to 8 mm long, unilocular, open by cap. The seeds are very small, numerous, kidney-shaped, lumpy and shiny, from brown to black color.

Purslane drugs have contributed to increasing the heart rate, constrict blood vessels and increase blood pressure, show hemostatic effect at internal bleeding. Purslane reduces blood sugar levels and can be recommended to the diet of patients with a mild form of diabetes.

The analysis of the volatile compounds of purslane herb using chromatography-mass spectrometric method on Agilent Technologies 6890 chromatograph with a mass spectrometer detector 5973 was carried out. Chromatography column - DB-5 capillary with an inner diameter of 0.25 mm and 30 m long. Speed of injection of the sample - 1.2 ml / min for 0.2 min. Flow rate gas (helium) - 1.2 ml / min. The temperature of sample heater - 250 °C. Oven temperature from 50 °C to 320 °C, the heating rate of 4 °C / min.

It were identified and determined the content of 42 compounds. Identified dominant volatile components: hexahydrofarnesylacetone, squalene, linalool and phenylacetaldehyde. Fig.1.

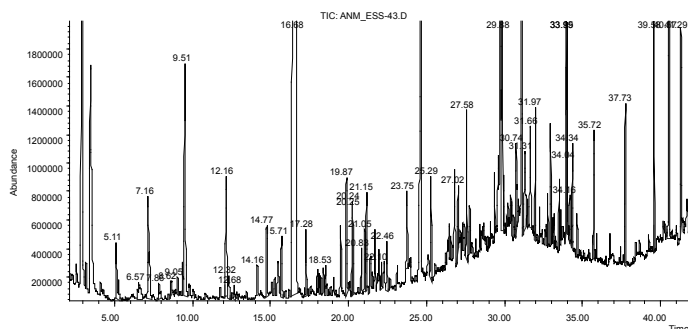


Fig.1. Chromatogramm of the volatile compounds of *Portulaca oleracea* herb.

Rich chemical composition is the base for further research of *Portulaca oleracea* L.