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**QUANTITATIVE DETERMINATION OF HYDROXYCINNAMIC  
ACIDS IN PORTULACA GRANDIFLORA**

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**Actuality.** The natural products isolated from various sources especially derived from plants, have long been used in treatment of human ailments. The herbal medicines are also in great demand in the developed world for primary health care because of their efficacy, safety and lesser side effects.

Search for the new natural sources of biologically active compounds in order to obtain effective and safe drugs is one of the important problems of modern pharmacognosy. Accordingly, the source of good and safe natural raw materials can be genus *Portulaca* L. In Ukraine, the genus *Portulaca* L. is represented by two species such as *Portulaca oleracea* L. and *Portulaca grandiflora* Hook. The natural phenols play an important role in the processes of respiration, photosynthesis, growth, and reproduction of plants. The hydroxycinnamic acids have antiviral, anti-inflammatory, immunostimulatory and antioxidant activities. Also, the hydroxycinnamic acids can contribute to the pharmacological effects of *Portulaca grandiflora*.

**The aim:** to study by spectrophotometric method the total content of hydroxycinnamic acids in aboveground and underground parts of *Portulaca grandiflora*.

**Materials and methods.** The objects of study were aboveground (herbs) and underground (roots) parts of *Portulaca grandiflora* Hook. The extracts for analysis were obtained by boiling the ground plant sample with corresponding extraction agent (water and water-alcohol solution) in a water bath under the same conditions. The total content of acids was carried out by spectrophotometric method (using spectrophotometer ULAB 108UV). When studying the UV-absorption spectrum of the plant extracts it has been found the absorption maximum. The alcoholic solution (50% v/v) was used as the compensation liquid. The percentage total content of hydroxycinnamic acid derivatives was calculated in terms of the chlorogenic acid.

**Results and discussion.** The results of the carried out investigations show that the total content of the hydroxycinnamic acids in terms of the chlorogenic acid in herbs of *Portulaca grandiflora* was  $0,26 \pm 0,02\%$  and in roots of *Portulaca grandiflora* –  $0,33 \pm 0,01\%$ .

**Conclusion.** The total content hydroxycinnamic acid in *Portulaca grandiflora* was determined by spectrophotometric method. The data obtained can be further used to standardize plant raw materials.