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UDC 547.972

Literature information on the presence of flavonoid compounds in representatives of the family Solanaceae was the basis for an investigation of the epigeal and hypogeal parts of *Physochlaina physaloides* collected in the phase of full flowering in the region of Ulan-Bator (Mongolian People's Republic).

The raw material was first treated with ether and was then extracted with 70% ethanol. The extracts obtained were tested for flavonoids by qualitative reactions.

According to one- and two-dimensional chromatography, the qualitative composition of the flavonoids of the epigeal part is represented by two substances: substance A with R_f 0.85 (15% acetic acid, system 1) and 0.39 [butan-1-ol-acetic acid-water (4:1:5), system 2], and substance B with R_f 0.55 (1) and 0.45 (2).

The total flavonoids were isolated and separated successively into individual components by the methods generally adopted, using adsorption chromatography on polyamide. The first portions of the aqueous eluate did not contain flavonoids. Subsequent elution with water led to the separation of flavonoid A, and flavonoid B was desorbed with 40% ethanol.

After two recrystallizations from 95% ethanol, flavonoid B had mp 189-192°C, $[\alpha]_D^{20} + 62^\circ$ (c 0.1; methanol); λ_{max} (in ethanol), nm: 356, 265, 255; with CH_3COONa - 378, 313, 273; with $\text{C}_2\text{H}_5\text{ONa}$ - 415, 275; with $\text{CH}_3\text{COONa} + \text{H}_3\text{BO}_3$ - 375, 260; with $\text{ZrO}(\text{NO}_3)_2$ - 410, 310; and with $\text{ZrO}(\text{NO}_3)_2 + \text{citric acid}$ - 360, 263 nm.

The products of acid hydrolysis were identified as quercetin, glucose, and rhamnose. The proportion of aglycone was 53.5%. On stepwise acid hydrolysis (0.04% HCl), quercetin 3- β -D-glucopyranoside and L-rhamnose were formed; on hydrolysis with rhamnodiastase quercetin and a biose with R_f 0.22 (2) consisting of glucose and rhamnose were obtained.

The IR spectrum of the intermediate quercetin 3- β -D-glucopyranoside showed three bands in the 1100-1010 cm^{-1} region - 1037, 1068, and 1090 cm^{-1} - which is characteristic for the pyranose form of rhamnose [1]

The results of polarimetric analysis confirmed the pyranose form of the D-glucose and L-rhamnose. The cleavage of the glycoside under investigation by *Aspergillus oryzae* into quercetin, glucose, and rhamnose showed the presence of a β -glycosidic bond for both the carbohydrate substituents.

Consequently, flavonoid B is quercetin 3-O- β -L-rhamnopyranosyl-(1 \rightarrow 6)- β -D-glucopyranoside, and is an isomer of isorutin [2]. This glycoside is a new compound, and we have called it neoisorutin.

We have studied the dynamics of the accumulation of the neoisorutin during the development of the plant. Neoisorutin was first separated by chromatography in system 1 with subsequent azo coupling and photocolourimetry. In the radical rosette phase the content of neoisorutin was 0.66%, in the flowering phase 2.47%, and in the fruit-bearing phase 2.47%.

LITERATURE CITED

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State Medical Institute, Ulan-Bator (Mongolian People's Republic). Zaporozhe Medical Institute. Khar'kov Chemical and Pharmaceutical Scientific-Research Institute. Translated from *Khimiya Prirodnikh Soedinenii*, No. 5, p. 666, September-October, 1971. Original article submitted May 24, 1971.

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