

We have previously [1] reported that the epigeal part of *Onobrychis tanaitica* Sprengel [*~* Don sainfoin], family *Fabaceae* [2], collected in the flowering period in the environs of the town of Pyatigorsk yielded five compounds of flavonoid nature, four of which were identified as quercetin, kaempferol, isoquercitrin, and astragalin, while the fifth was not studied. In the present communication we give the results of the further isolation and investigation of flavonoid compounds from *O. tanaitica*.

To obtain the total flavonoids, 100.0 g of dried herbage was exhaustively extracted with 70% ethanol in an apparatus of the Soxhlet type. The ethanolic extract was evaporated in vacuum to an aqueous residue. The aqueous extract was treated with chloroform. At the boundary between the aqueous extract and the chloroform a voluminous grey-yellow precipitate deposited after a day (yield 0.42%). After recrystallization from ethanol, an individual substance was obtained with the composition  $C_{27}H_{30}O_{16} \cdot 2H_2O$ , mp 187-189°C (ethanol),  $\lambda_{max}$  365, 258 nm,  $[\alpha]_D^{20} -12.5^\circ$  (c 0.7, methanol), which consisted of quercetin 3-rutinoside (rutin).

The chloroform-purified aqueous extract was exhaustively re-extracted with ethyl acetate, and the new extract was evaporated and treated with dry chloroform for the precipitation of the total flavonoids. The total flavonoids were deposited on a column containing polyamide sorbent. Elution of the column with 20-25% ethanol gave an individual substance (yield 0.18%) with the composition  $C_{21}H_{20}O_{12}$ , mp 232-235°C (ethanol),  $\lambda_{max}$  365, 259 nm.  $[\alpha]_D^{20} -60^\circ$  (c 15; methanol), consisting of quercetin 3-O- $\beta$ -D-galactopyranoside (hyperoside).

The structure of the compounds isolated were confirmed by the results of elementary analysis, of UV and IR spectroscopy, and of a study of the products of acid and enzymatic hydrolysis, and also by comparison with authentic reference samples.

## LITERATURE CITED

1. A. L. Kazakov, V. A. Kompantsev, and M. S. Luk'yanchikov, *Khim. Prir. Soedin.*, 244 (1981).
2. A. A. Grossgeim, *The Flora of the Caucasus* [in Russian], Vol. V (1952), p. 370.