

As can be seen from the figures in Table 1, seeds of plants of the family Leguminosae attract attention by the amount of combined phospholipids that they contain and their qualitative composition.

#### LITERATURE CITED

1. Kh. S. Mukhamedova and S. T. Akramov, *Khim. Prirodn. Soedin.*, 505 (1977).
2. Kh. S. Mukhamedova, T. U. Rakhmatullaev, and S. T. Akramov, *Khim. Prirodn. Soedin.*, 129 (1977).

#### COUMARINS AND FUROCOUMARINS OF THE ROOTS OF *Hippomarathrum microcarpum*

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UDC 577.15/17;582.89

The present paper gives the results of an investigation of the coumarin compounds [1-3] from the roots of *Hippomarathrum microcarpum* collected at the beginning of July in the mountains of the Shushinskii region of the Azerbaidzhan SSR.

Extraction with chloroform (steeping method) [2] of 1.171 kg of comminuted plant roots yielded 99 g of a resin (8.45% of the air-dry weight of the roots). The resin isolated in this way was dissolved in 40 ml of chloroform and chromatographed on a column of inactive  $Al_2O_3$ . The ratio of  $Al_2O_3$  to resin was 6.4:1. The substances were eluted with petroleum ether (fractions 1-15) and chloroform (fractions 16-32). The volume of each fraction was 200 ml. Fractions 1-15, after the eluate had been distilled off, yielded a crystalline residue from which, by recrystallization from ethanol, we isolated osthole (0.19%), ( $\pm$ )-oxypeucedanin (0.4%), and ( $\pm$ )-oxypeucedanin hydrate (3%). Fractions 16-32 contained ( $\pm$ )-prangenin or ( $\pm$ )-heraclenin (0.01%). This is the first time that ( $\pm$ )-prangenin has been isolated from plants of the genus *Hippomarathrum* [4]. The substances isolated were identified by comparison with known compounds of the coumarin series by means of their IR spectra and melting points [3].

#### LITERATURE CITED

1. G. V. Pigulevskii, Yu. A. Dranitsyna, S. Sh. Kerimov, and I. S. Kozhina, *Khim. Prirodn. Soedin.*, 215 (1967).
2. S. Sh. Kerimov, *Zh. Prikl. Khim.*, 38, 2566 (1965).
3. S. Sh. Kerimov, *Zh. Prikl. Khim.*, 39, 660 (1966).
4. G. A. Kuznetsova, *Natural Coumarins and Furocoumarins* [in Russian], Leningrad (1967).