

We have continued a study of the chemical study of the epigeal part of *Caragana frutex* C. Koch (Russian pea shrub) collected in the flowering phase in the environs of Kharkov [1].

The chromatographic separation of an ethereal fraction on a polyamide column [eluting solvents, chloroform and chloroform-ethanol (9:1), (8:2), and (7:3)] yielded five substances of flavonoid nature (I-V).

Substance (I) -  $C_{16}H_{12}O_5$ , mp 259-261°C,  $\lambda_{\max}^{C_2H_5OH}$ : 269, 302 sh, 328 nm;  $\lambda_{\max}^{C_2H_5ONa}$ : 276, 296 sh, 365 nm;  $\lambda_{\max}^{AlCl_3}$ : 259, 277, 293 sh, 302, 345, 383 nm;  $\lambda_{\max}^{CH_3COONa}$ : 276, 298 sh, 359 nm;  $\lambda_{\max}^{CH_3COONa+H_3BO_3}$ : 269, 309 sh, 332 nm; was identified as acacetin.

Substance (II) -  $C_{16}H_{12}O_7$ , mp 303-305°C,  $\lambda_{\max}^{C_2H_5OH}$ : 253, 267 sh, 307 sh, 326 sh, 371 nm;  $\lambda_{\max}^{C_2H_5ONa}$ : 240 sh, 271, 329, 436 nm;  $\lambda_{\max}^{AlCl_3}$ : 264, 304 sh, 362 sh, 432 nm;  $\lambda_{\max}^{CH_3COONa}$ : 260 sh, 274, 321, 394 nm;  $\lambda_{\max}^{CH_3COONa+H_3BO_3}$ : 264, 304 sh, 362 sh, 432 nm; was identified as isorhamnetin.

Substance (III) -  $C_{15}H_{10}O_6$ , mp 275-277°C, was identical with kaempferol; substance (IV) -  $C_{15}H_{10}O_7$ , mp 314-316°C, was identical with quercetin; and substance (V) -  $C_{15}H_{10}O_8$ , mp 354-356°C, was identical with myricetin.

The substances isolated were identified by the chromatographic behavior and their physicochemical properties in comparison with an authentic sample [2].

This is the first time that flavonoids have been isolated from *Caragana frutex*.

#### LITERATURE CITED

1. V. V. Boinik, V. N. Kovalev, and N. F. Komissarenko, et al., *Khim. Prir. Soedin.*, 780 (1983).
2. L. K. Klyshev, V. A. Bandyukova, and L. S. Alyukina, *Plant Flavonoids* [in Russian], Nauka KazSSR, Alma-Ata (1978), p. 220.