OCH_3). By an analysis of UV, IR, and PMR spectra and melting points and a comparison of them with literature figures [7], substance (VI) was identified as 4',5-dihydroxy-3',7-dimethoxyflavone – velutin.

Substance (VII) had mp 230°C (90% ethanol); IR spectrum (cm^{-1}): 3500-3300, 1710, 1690, 1110, 1080, 1040, 1000; λ_{max}^{MeOH} (nm): 240, 250 sh., 288, 340. The acid hydrolysis of (VII) (6%) solution of HCl, 100°C, 3 h) gave an aglycone identical with scopoletin according to IR spectroscopy and the absence of a depression of the melting point of a mixture of the aglycone with an authentic sample. The glycosidic residue was identified as glucose by paper chromatography with a marker (FN-11, butanol–pyridine–water (6:4:3) system). However, the glucoside that we had isolated had a different melting point from that of the known acopoletin glucoside scopolin (mp 217-219°C) [1]. The structure of the glycosidic component could not be established definitively because of the inadequate amount of substance.

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PHENOLIC COMPOUNDS OF *Artemisia adamsii*

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We have studied the chemical composition of the epigeal part of *Artemesia adamsii* Bess, collected by the resources-prospecting section of the combined Soviet–Mongolian Complex Biological Expedition in the Mongolian Peoples' Republic. Three samples of this species were taken which differed with respect to their collection sites and the vegetation phase of the plants.

A comparative investigation with the aid of paper chromatography (FN-11 paper, BAW (6:1:2) and 2% acetic acid solution systems) showed the identical qualitative compositions of all the samples. The samples were treated under the following scheme: extraction with 70% ethanol, extraction of the flavonoids with hot water from the concentrated ethanolic extract, followed by treatment of the aqueous fraction with chloroform and ethyl acetate.

The chromatographic separation of the chloroform fraction on silica gel (L 100/160 μ) yielded substance (I). After reseparation of the individual fractions on silica gel (L 40/100 μ), substance (II) was obtained. Chromatography of the ethyl acetate fraction on a column of polyamide yielded substance (III).

Substances (I) with the composition $C_{10}H_8O_4$, mp 205°C and (II) with the composition $C_{17}H_{14}O_7$, mp 228°C were identified by IR and UV spectroscopy and the absence of depressions of the melting points of mixtures as scopoletin [1] and 4',5,7-trihydroxy-3',6-dimethoxyflavone [2], respectively.

Substance (III) had the composition $C_{16}H_{12}O_7$, mp 272°C, λ_{max}^{MeOH} (nm) 260 sh., 281, 353. The results of UV spectroscopy with complex-forming and ionizing additives [NaOAc (273, 382 nm); NaOAc + H_3BO_3 (270, 380 nm), NaOMe (273, 418 nm); $AlCl_3$ (283, 435 nm); and $AlCl_3$ + HCl (267, 292, 372 nm)], showed the presence of free hydroxy groups in the 3', 4', 5, and 7 positions IR spectrum (cm^{-1}): 3380, 1660, 1610, 1580, 1280, 1165.

The PMR spectrum had the following signals (DMSO, δ, ppm): 7.38 (m, 2 H, H-2', H-6'); 6.86 (d, J = 8 Hz, 1 H, H-5'); 6.60 (s, 1 H, H-8); 6.52 (s, 1 H, H-3); 3.72 (s, 3 H, OCH_3). The tetraacetate of (III) had mp 190°C (methanol). PMR spectrum of the tetraacetate ($CDCl_3$, δ, ppm): 769 (m, 2 H, H-2', H-6'); 7.37 (d, J =

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9 Hz, 1 H, H-5'); 6.61 (s, 2H, H-8, H-3); 3.89 (s, 3H, OCH_3); 2.51 (s, 3 H, CH_3); 2.36 (s, 3 H, CH_3COO); 2.33 (s, 6 H, 2 CH_3COO). On the basis of the results of IR, UV, and PMR spectroscopy and also of physical constants and their comparison with the literature, substance (III) was identified as 3',4',5,7-tetrahydroxy-6-methoxy flavone – eupafolin [3, 4].

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FLAVONOIDS OF SOME SPECIES OF THE GENUS Dianthus

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In the epigeal parts of Dianthus arenarius, D. hoeltzeri, D. acicularis, D. crinitus, D. tetralepsis, D. dicolor, D. versicolor, D. ramosissimus, family Caryophyllaceae, with the aid of paper and thin-layer chromatography we have detected the presence of phenolic compounds and triterpene saponins. We have analyzed the flavonoid compounds of the epigeal parts of these pinks. Some of them have been isolated by column chromatography on a polyamide sorbent and by preparative paper chromatography. Their structures have been established from their physicochemical compounds, IR, PMR, and UV spectroscopic studies, and chemical transformations. As markers we used compounds obtained previously from representatives of the family Caryophyllaceae [1-3].

The following solvent systems were used – 15% acetic acid, butan-1-ol–acetic acid–water (4:1:5), and 60% acetic acid.

Acid hydrolysis of the substances with 10% hydrochloric acid led to the formation of various C-monoglycosides, and hydrolysis by Kiliani's method [4] to the aglycones.

The results of the investigation performed have shown that D. arenarius, D. crinitus, and D. tetralepsis contain C-monoglycosides and O-glycosides of apigenin and of luteolin – orientin, homoorientin, vitexin, isovitexin, luteolin 4'-glucopyranoside, and apigenin 4'-glucopyranoside. Such species of the genus as D. hoeltzeri and D. acicularis are characterized by the presence of glycoflavonoids of apigenin – neoavroside and isoneoavroside. Isosaponarin has been found in D. squarrosus. Characteristics for D. dicolor, D. ramosissimus, and D. versicolor is the presence of C-glycosides of chrysoeriol.

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