

Continuing an investigation of the alkaloids of the plant *Physochlaina alatica* E. Korot., by extracting with chloroform the roots collected in the period of the withering of the epigeal part in the basin of the R. Shakhimardan (northern slope of Alai range) we have isolated 1.45% of total alkaloids of total alkaloids, which were separated into benzene, chloroform, and water-soluble fractions.

By separating the mixture of bases according to their solubilities in various organic solvents and according to their basicities with the aid of buffer solutions, and by chromatography on columns with alumina and silica gel, we isolated hyoscyamine, 6-hydroxyhyoscyamine, hyoscine,  $\alpha$ -belladonnine,  $\beta$ -belladonnine, physochlaine, 6-hydroxyatropine, apotropine, apohyoscine, 6-hydroxyhyoscyamine N-oxide, tropine, 3,6-dihydroxytropine, and base A, which were known previously [1], and another alkaloid with the composition  $C_{17}H_{23}NO_3$  [1],  $M^+$  289, mp 116-117°C (ethanol-chloroform), optically inactive.

The IR spectrum of (I) contained absorption bands at 710 and 760  $cm^{-1}$  (monosubstituted benzene ring) and 1722  $cm^{-1}$  (ester carbonyl group) and a broad band at 3380-3420  $cm^{-1}$  (hydroxy group).

The PMR spectrum ( $CDCl_3$ ,  $\delta$  scale) showed signals at (ppm) 2.18 (3 H, singlet, N- $CH_3$ ), 5.00 (1 H, triplet,  $C_3H$ ), and 7.22 (5 H, singlet, monosubstituted benzene ring).

The mass spectrum of (I) contained the peaks of ions with  $m/z$  289 ( $M^+$ ), 124, 123, 113, 112, 97, 96, 95, 83, and 82, which are characteristic for alkaloids of the tropane group.

The facts given above, and also the absence of a depression of the melting point of a mixture with an authentic sample, showed that the base isolated was atropine, which has previously been isolated from many plants of the family Solanaceae [2-4].

Thus 14 bases have been isolated from *Ph. alatica*, of which atropine has been detected in this plant for the first time.

## LITERATURE CITED

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