developed was used to find the amount of deoxypeganine in the herb Peganum harmala collected in the Dzhizak oblast of the Uzbek SSR – from 0.3 to 0.08 % of the weight of the dry raw material. The relative error of the method is ±5%.

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ALKALOIDS OF Ammodendron eichwaldi

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The leaves of Ammodendron eichwaldi Ldb. (family Leguminoseae) collected in the environs of Krasnovodsk in the fruit-bearing period (April 8, 1972) contained 1.8% of total alkaloids.

There is information in the literature only on the qualitative composition of the alkaloids in this plant [1, 2]. The investigation showed that alkaloids are present in all the parts of the plant and they were found in the greatest amount (2.7%) in the glumes of the pods. The alkaloids were determined quantitatively in the various organs by the gravimetric method.

By extraction, 5 kg of air-dry leaves of the plant concerned yielded 45 g of combined alkaloids. This material was separated by successive extraction from alkaline solution with the following solvents: petroleum ether, benzene, and chlorofrom. The petroleum ether fraction (16 g) consisted mainly of pachycarpine, which was identified from the melting point of its hydriodide and by a mixed melting point.

The benzene extract (18 g) by chromatography on a column of alumina (activity grade II) and elution with benzene (fractions 1-15) yielded a base with R_f 0.58 (3.7g) giving a perchlorate with mp 213-215°C a mixture of which with *l*-lupanine perchlorate melted without depression. When the column was eluted with chloroform–benzene (1 : 1), fractions 16-35 yielded a base with R_f 0.41 (0.8 g). The base with R_f 0.41 was an oil giving a crystalline picrate with mp 252-253°C. According to its spectra (UV, IR, and mass spectra) and a direct comparison with an authentic sample, this alkaloid was identified as anagyrine. Fractions 36-52 [chloroform–benzene (1 : 1)] yielded a base with R_f 0.27 (7.2 g), mp 135-136°C, which was identified from its physicochemical properties and spectral characteristics as methylcytisine.

When 13 g of the chloroform fraction was chromatographed on a column of alumina (activity grade II), elution with chloroform–benzene (2 : 1) gave cytisine with mp 155-156°C (0.7 g) (fractions 1-10). From fractions 11-27 we isolated yet another base, with R_f 0.81 (0.6 g), mp 58-60°C, which gave a perchlorate with mp 198-200°C. A mixture of this base with an authentic sample of ammodendrine gave no depression of the melting point. This is the first time that all six of these bases have been isolated from Ammodendron eichwaldi.

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