or nitrogen was passed for 5-10 min, and the solution was polarographed with cathodic polarization in the interval of 1.20-2.00 V. Then 0.5 ml of a standard solution (0.1 g of coumarin and 0.3 g of cinnamic acid) was added to this solution.

Determination of Cinnamic Acid. To 5 ml of the preparation was added 5 ml of 5% LiCl solution, and the mixture was carefully stirred and placed in the cell. The subsequent procedure was the same as for coumarin. The results of the analysis of the preparation FIBS are given in Table 1.

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# COUMARINS FROM THE ROOTS OF Ferula badrakema

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Some time ago [1], N. P. Kir'yalov isolated in large amount (2-3% of the weight of the dry roots) from the neutral fraction of the resin of the roots of Ferula badrakema K.-Pol. gathered in the region of Kyzyl Dzhar (Turkmenia) a coumarin compound which he called badrakemin [1].

We have studied the coumarin composition of the resin of the roots of this plant that had not been subjected to treatment with alkali. The plant material for the investigation was gathered in the environs of Kushka (Badkhiz, Turkmenia).

An alcoholic extract of the roots was chromatographed on a column of alumina (activity grade II) using benzene, benzene–chloroform, chloroform, and chloroform–ethanol. Individual fractions were additionally chromatographed on columns of silica gel with elution by chloroform.

As a result, we isolated: badrakemin acetate, in an amount of 2-3% of the weight of the dry roots; badrakemin itself and also isosamarcandin and umbelliferone, in considerably smaller amount; and conferol acetate in very small amount. The compounds were identified from their melting points and the identity of their IR spectra with those of known compounds.

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