

ARBUTIN FROM ONOBRYCHIS KACHETICA

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In a study of the flavonoids of *Onobrychis* Adans. [1] we have isolated arbutin from this genus. The air-dry comminuted epigeal part of *O. kachetica* Boiss. was extracted with 80% methanol. After the evaporation of the alcohol, the aqueous liquid was purified with chloroform, concentrated, and transferred to a small column of alumina. The column was washed with a mixture of equal volumes of ethyl acetate and acetone. The solvent was distilled off from the eluate, and the residue was dissolved in water and passed through EDE-10 anion-exchange resin to eliminate organic acids. The aqueous layer was concentrated and the residue was crystallized from methanol-chloroform, giving colorless acicular crystals with the composition $C_{12}H_{16}O_7$, mp 200–201° C. UV spectrum: λ_{max} 280 m μ . On a paper chromatogram it gave a single spot at the level of an authentic sample of arbutin. A mixture with an authentic sample of arbutin gave no depression of the melting point. The yield of arbutin from the raw material was 8%.

Of 16 species of *Onobrychis* Adans. growing in the Georgina SSR that we have studied, arbutin has been found only in *O. kachetica* Boiss. *O. radiata* M. B., and *O. meschetica* Grossh. Arbutin was found in the leaves and stems of the plant, and hydroquinone was found in the roots.

Arbutin has been found for the first time in the genus *Onobrychis* Adans.

REFERENCE

1. I. I. Moniava and E. P. Kemertelidze, KhPS [Chemistry of Natural Compounds], 5, 178, 1969.

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