## POLYPHENOLS OF SOME SPECIES OF Rhus

A. K. Karimdzhanov, Sh. Yu. Islambekov, S. M. Mavlyanov, and A. I. Ismailov

In order to find sources of plant polyphenols possessing biological activity, we have begun an investigation of some species of sumach (*Rhus coriaria*, *Rh. glabra*, *Rh. typhina*, etc.). It has been found that the largest amount of sumach tannins is localized in the leaves. Their amount varies substantially according to the vegetation period in the range of 12.5-16.0% (quantitative determination was performed by the standard method [1]). Qualitative reactions (1% ethanolic solution of FeCl<sub>3</sub>, 1% solution of vanillin in concentrated HCl) showed that the polyphenols of the leaves belonged to the hydrolyzable series. By means of paper chromatography [butanol-acetic acid-water (40:12:28) system] and column chromatography on polyamide (aqueous acetone) and on silica gel [diethyl ether-ethyl acetate (1:1), and ethyl acetate] it was shown that the main compounds of the polyphenol complex were Chinese tannin and substances biogenetically related to it. It is interesting to note the fact that in the autumn leaves, in addition to the above-mentioned substances, an anthocyanin - chrysanthemin (cyanidin 3- $\beta$ -D-glucopyranoside) - was detected.

The fruit (pericarp) of the sumach species studied contained a considerable amount of pigments. With the aid of paper chromatography [BAW (4:1:5)] it was established that they contained three anthocyanin glycosides.

The stems were shown with the aid of paper chromatography and qualitative reactions to contain three substances of catechin nature and one anthraquinone. The leaf stalks contained a catechin.

## LITERATURE CITED

1. All-Union Unit Method of Investigation in the Leather Industry (VEM) [in Russian], Moscow-Leningrad (1938).

Institute of Bioorganic Chemistry of the Academy of Sciences of the Uzbek SSR, Tashkent. Translated from Khimiya Prirodnykh Soedinenii, No. 3, pp. 386-387, May-June, 1986. Original article submitted January 22, 1986.