

A GLYCOALKALOID FROM *Solanum persicum*

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UDC 547.944/945

On further chromatographic separation [1], from *Solanum persicum* Willd. we have isolated a glycoalkaloid with the composition $C_{49}H_{79}NO_{20}$ (I), mp 282–284° C (methanol), $[\alpha]_D^{20} - 48.08^\circ$ (c 0.50; methanol), R_f 0.42 [KSK silica gel; ethyl acetate–pyridine–water (3:1:3) system].

The IR spectrum of compound (I) (Fig. 1) shows the absorption bands characteristic for glycoalkaloids [2, 3].

The acid hydrolysis of (I) with 2 N HCl formed the chloride of the aglycone with mp 262–263° C. From the hydrochloride was obtained the free aglycone base with mp 200–202° C, $[\alpha]_D^{20} - 98.1^\circ$ (c 0.73; CH_3OH), which gave no depression of the melting point in admixture with solasodine. The IR spectra of these compound were also identical.

The composition of the carbohydrate moiety of the glycoalkaloid [4] was established by acid hydrolysis. The hydrolyzate contained galactose, glucose, and xylose. On the basis of the elementary compositions of the glycoalkaloid and its aglycone, it may be concluded that two molecules of one of these sugars are present.

The specific rotation of the combined sugars obtained on the hydrolysis of the glycoalkaloid proved to be $+44.1^\circ$, i.e., extremely close to the value calculated for a mixture of sugars consisting of two molecules of xylose, one molecule of glucose, and one molecule of galactose [5, 6].

The facts given above show that this substance is not identical with any of the known glycoalkaloids. Consequently, the glycoalkaloid (I) isolated is new. We have called it solapersine.

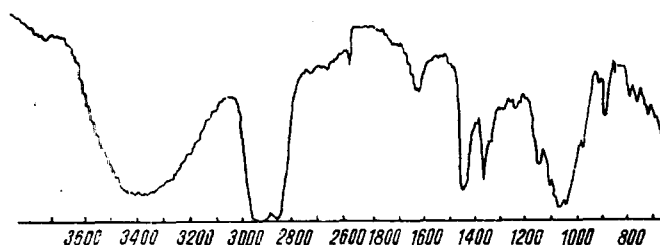


Fig. 1. IR spectrum of solapersine.

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V. L. Komarov Institute of Botany, Academy of Sciences of the Azerbaidzhan SSR. Translated from *Khimiya Prirodnikh Soedinenii*, No. 3, p. 434, May–June, 1975. Original article submitted January 23, 1975.

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