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GITALOXIN FROM *Digitalis ciliata*

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In the adsorption chromatography of the less polar glycosides of the leaves of *Digitalis ciliata* Trautv. on a column of alumina, we isolated digitoxin and digitoxigenin bis-digitoxoside [1, 2]. When the column was eluted further with chloroform-ethanol (95:5), an individual compound was obtained in the form of a grayish white powder which, after treatment with activated carbon and recrystallization from dilute methanol, formed white acicular crystals with the composition $C_{42}H_{64}O_{15}$, mp 243-245°C. On a paper chromatogram in various systems of solvents the substance was located in the region of an authentic sample of gitaloxin. The Legal, Raymond, Kedde, and Keller-Kiliani reactions were positive. In the latter case, the layer of acetic acid was colored blue and the sulfuric acid was colored crimson. After treatment with the Svendsen-Jensen reagent the bright blue fluorescence in UV light characteristic for gitaloxigenin derivatives appeared. In the UV spectrum $\lambda_{\max}^{C_{42}H_{64}O_{15}OH}$ 220 nm (log ϵ 4.8). The IR spectrum was also identical with that of the foxglove cardenolides [3, 4]. Under the action of alkalis it underwent saponification with the formation of gitoxin. Acid hydrolysis of the glycoside with 0.1 N H_2SO_4 gave the aglycone gitoxigenin (mp 222-224°C) and the sugar digitoxose.

The results that we obtained permitted the conclusion that the substance studied was gitaloxigenin 3-O-tridigitoxoside or gitaloxin [4, 5].

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