POLAROGRAPHIC DETERMINATION OF LANATOSIDE C

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Lanatoside C (celanide) is a glycoside obtained from the leaves of *Digitalis lanata* Ehrh. (Grecian foxglove). It is known that cardiac glycosides possess polarographic activity [1, 2]. When celanide was polarographed on a support of 0.05 M tetrabutylammonium iodide in ethanol, we obtained one clear polarographic wave the half-wave potential of which was −2.1 V (S.C.E.). The work was performed on an LP-60 polarograph. The cathode was a dropping mercury electrode (capillary characteristics: t = 0.42 sec, m = 0.78 mg/sec), and the anode was a silver wire. In order to plot a calibration graph, 20.6 mg of celanide was dissolved in ethanol in a 25-ml measuring flask. Then 0.4, 0.8, 1.2, 1.6, 2.0, and 2.5 ml of the resulting solution were transferred to test-tubes each containing 2.5 ml of 0.1 M tetrabutylammonium iodide in ethanol, and they were made up with the same solvent to 5.0 ml. The resulting solutions were placed successively in the chromatographic cell and, after the oxygen had been eliminated from the solution with a stream of nitrogen, polarography was carried out with cathodic polarization. On the calibration curve, the height of the wave (mm) was plotted along the axis of ordinates and the concentration of celanide (μg/ml) along the axis of abscissas. It was found that in the interval studied the height of the wave depends linearly on the concentration of celanide. The results of a statistical treatment of the calibration graph are given below:

n	$\bar{y}$	$\bar{x}$	s	a	S_0^2	$t_{0.95}$	$s_{rel.}$, %
6	37.6667	233.4333	0.1608	0.1276	0.5120	2.78	5.72

The method developed can be used for the analysis of samples of lanatoside C.

LITERATURE CITED

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