

## SAPOGENINS FROM HEDERA PASTUCHOVII

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Continuing a study of the triterpene glycosides of the genus Hedera, from the leaves of H. pastuchovii Woron., family Araliaceae collected in eastern Georgia, we have isolated 8% of purified combined triterpene saponins containing nine glycosides. We have called them "pastuchosides" A, B, C, D, E, F, G, H, and I.

By acid hydrolysis of the combined glycosides with subsequent chromatography of the resulting product on a column of silica gel, two aglycones were isolated. One aglycone [mp 303-305° C,  $[\alpha]_D^{20} +80.1^\circ$  (c 1.1, chloroform)], from its  $R_f$  value with a standard sample, a mixed melting point, and its IR spectrum, was identified as oleanolic acid. The second aglycone [mp 326-327° C,  $[\alpha]_D^{20} +77.2^\circ$  (c 0.9, pyridine)] was identical chromatographically, by mixed melting point, and in its IR spectrum with hederagenin. The acetates and methylated derivatives of the aglycones that we prepared were also identical with those of oleanolic acid and hederagenin.

In order to establish the composition of the carbohydrate part, the acid hydrolysate, after the evaporation of the aglycones, was neutralized with EDE-10 P anion-exchange resin ( $\text{HCO}_3^-$  form) and chromatographed on paper in various systems of solvents in parallel with markers. D-Glucose, L-arabinose, and L-rhamnose were detected.

Oleanolic acid and hederagenin were found by Tschesche et al. in the glycosides which they isolated from H. helix [1]. We have found the same aglycones in the saponins of H. colchica [2] and H. caucasigena [3].

## REFERENCES

1. R. Tschesche, W. Schmidt, and G. Wulff, Z. Naturforsch, 20b, 708, 1965.
2. G. E. Dekanosidze, and T. A. Pkheidze, KhPS [Chemistry of Natural Compounds], 4, 253, 1968.
3. G. E. Dekanosidze, T. A. Pkheidze, and É. P. Kemertelidze, KhPS [Chemistry of Natural Compounds], 6, 386, 1970 [in this issue].

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