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## CHEMICAL COMPOSITION OF *Potentilla fruticosa*.

### II. TRITERPENOIDS

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We have previously reported on the isolation from bush cinquefoil *Potentilla fruticosa* L., family Rosaceae, of five flavonoid compounds [1]. Continuing a study of the extractive substances (nonpolar fraction) of this plant, we have isolated three compounds of the triterpene type (I-III). The substances were chromatographed in the form of the native compounds or their methyl esters and were identified on the basis of the results of  $^1\text{H}$  and  $^{13}\text{NMR}$  spectroscopies and mass spectrometry, and also the results of a comparison of physicochemical characteristics.

Substance (I) -  $\text{C}_{30}\text{H}_{48}\text{O}_3$ , mp 232-235°,  $[\alpha]_{546}^{22} +95^\circ$  (c 1.2; chloroform) [2]. This compound was epiursolic acid, although the isolation of ursolic acid itself from *Potentilla fruticosa* has been reported elsewhere [3]. In the  $^1\text{H}$  NMR spectrum of substance (I), the signal of the H-3 proton arranged geminally to the hydroxy group appears at 3.46 ppm with SSCCs of 5 and 9 Hz, which shows the  $\beta$ -orientation of this proton and, consequently, the orientation of the hydroxy group.

Substance (II) -  $\text{C}_{30}\text{H}_{48}\text{O}_4$ , mp 242-244°,  $[\alpha]_{546}^{20} +34.3^\circ$  (c 1.34; pyridine), melting point of the methyl ester 210-212°,  $[\alpha]_{546}^{20} +85.7^\circ$  (c 0.6; chloroform). This was identified as 2 $\alpha$ -hydroxyursolic acid [4].

Substance (III) -  $\text{C}_{30}\text{H}_{48}\text{O}_5$ ,  $M^+$  488; methyl ester  $\text{C}_{31}\text{H}_{50}\text{O}_5$ , mp 145-148°,  $[\alpha]_{546}^{22} +54^\circ$  (c 0.9; chloroform). This was identified as termentic acid (2 $\alpha$ ,19 $\alpha$ -dihydroxyursolic acid) [5].

This is the first time that all these substances have been isolated from this plant.

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