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COUMARINS OF *Seseli cuneifolium*

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Continuing the chemical study of representatives of the genus *Seseli*, family Apiaceae, we have investigated the roots and epigeal, part of *Seseli cuneifolium* collected in the following period on August 10, 1984 in the Yasamal'skaya valley near Baku.

The air-dry comminuted roots (0.5 kg) were extracted three times with acetone, and the extract was evaporated. The combined extractive substances were treated successively with ether, chloroform, and ethyl acetate. The chloroform-soluble fraction was transferred to a column of neutral alumina and was eluted with hexane, hexane-chloroform in ratios of 9:9, 8:1, etc., with gradually increasing concentrations of the chloroform, pure chloroform, mixtures of chloroform and ethanol in ratios of 49:1, 19:1, 9:1, and 4:1, and with ethanol.

As the result of chromatography, three substances (I-III) were isolated.

Compound (I) — $C_{24}H_{26}O_7$, mp 173°C; the IR spectrum contained absorption bands of the carbonyl of a γ -lactone present in conjugation with an aromatic nucleus (1735 cm^{-1}) and of an aromatic nucleus (1610 , 1580 , 1470 cm^{-1}).

Compound (II) — $C_{21}H_{20}O_7$, mp 82°C; its IR spectrum showed absorption bands at (cm^{-1}) 1730 (CO group of a γ -lactone) and 1600 and 1510 (double bonds of an aromatic ring).

Compound (III) — $C_{29}H_{40}O$, mp 136-137°C; its IR spectrum contained absorption bands in the regions of (cm^{-1}) 3300-3430 (hydroxy groups), 1380 (methyl radical) and 1070, 1060, 980, 968, and 810. The substance gave a precipitate with digitonin and also took part in the Liebermann-Burchard and Zil'kovskii reactions, showing that it belonged to the class of steroids. By a comparison of elementary compositions, physicochemical constants, and NMR and IR spectra, and also by the absence of a depression of the melting point in mixtures with authentic samples, substance (I) was identified as anomalin, (II) as pteryxin, and (III) as β -sitosterol [1-3].

Anomalin, pteryxin, and β -sitosterol were also isolated from an acetone extract of the epigeal part of *Seseli cuneifolium* by chromatographic separation on a column.

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