

STIZOLICIN FROM CENTAUREA SOLSTITIALIS

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Centaurea solstitialis L. (yellow centaurea) is a perennial herbaceous plant of the family Compositae. Its epigeal part contains the sesquiterpene lactone scabiolide [1].

From the epigeal part of yellow centaurea collected in the Vashlavan National Park (southeastern Georgia) on May 17, 1968, at the beginning of budding, we have isolated by aqueous extraction [2] a colorless crystalline substance with the composition $C_{20}O_2H_7$, mp 151-153° C (from ethanol). The IR spectrum of the substance has absorption bands at (cm^{-1}) 3460 and 3480 (OH), 1765 and 1670 (α -methylene and γ -lactone), 1720 and 1245 (C=O), and 1655 (C=C). From a comparison of the results obtained with those given in the literature we came to the conclusion that the substance isolated is identical with stizolicin—a sesquiterpene lactone from Stizolophus coronopifolius (Lam.) [3].

On chromatography in a thin layer of neutral alumina [activity grade VI; benzene-ethanol (9:1) system; spots revealed with a 0.5% solution of $KMnO_4$ in 0.5% H_2SO_4], the R_f values of stizolicin and the substance isolated coincided (0.3); their IR spectra were identical. A mixture with stizolicin gave no depression of the melting point. Plants of the same species collected in the flowering stage in the Talysh (southeastern Azerbaizhan) contained no stizolicin.

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