

sweet orange variety *Citrus sinensis* Osb. contain 16 substances, of which 13 were identified; and the carotenoid complex of the peel of *Poncirus trifoliata* consists of nine identified individual substances.

In the peel of each type of fruit, characteristic carotenoids predominate and these are responsible for differences in the biological value and color of the fruit. Thus, in the peel of the citrange fruit the predominating carotenoid is cryptoxanthin (17.2%); in the peel of the sweet orange cryptoxanthin (37.9%) and trolloxanthin (39.1%); and in the peel of the trifoliolate orange η -carotene (47.3%) and hydroxy- α -carotene (19.8%).

Of the carotenoids identified in the peel of the fruit, cryptoxanthin, η -carotene, and hydroxy- α -carotene possess vitamin activity.

COMPONENTS OF *Acroptilon repens*

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We have continued an investigation of *Acroptilon repens* (L.) DC [1]. The plant collected in the stage of full flowering on September 5, 1980 in the environs of Tashkent was extracted with 60% ethanol. Aqueous ethanol solution was extracted with chloroform, and the extract was passed through a column of silica gel.

From the first benzene eluates crystals were isolated with mp 109-110°C (ethanol), composition $C_{16}H_{13}N$, M^+ 219 (I).

With tungstosilicic acid (I) formed a voluminous precipitate having a bright blue fluorescence in UV light, R_f 0.6 [hexane-ether (4:1)].

The IR spectra of (I) showed absorption bands at 3400 cm^{-1} (active hydrogen) and 1630, 1600, and 1510 cm^{-1} (C=C bonds of an aromatic system).

A mixture with an authentic sample [2] showed that (I) was phenyl- β -naphthylamine. Subsequent benzene fractions yielded a compound (II) with mp 138-139°C, which proved to be β -sitosterol.

When the column was eluted with ether, the eluates deposited crystals of repin and acroptilin. From the same plant, by extraction with acetone and treatment with 60% ethanol and then with chloroform, an extract was obtained which was chromatographed on a column of alumina. The combined fractions were rechromatographed on silica gel. In this way, hyrcanin, repin, acroptilin, and a lactone with mp 155-156°C (hexane-acetone) were isolated. From the results of spectral analysis and a direct comparison, the last-mentioned compound was identified as elegin [3].

Phenyl- β -naphthylamine, β -sitosterol, and the lactone elegin have not previously been detected in *Acroptilon repens*.

LITERATURE CITED

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