

A STUDY OF THE FLAVONOIDS OF SALVIA NUTANS

E. V. Gella and L. I. Prokosheva

Khimiya Prirodnykh Soedinenii, Vol. 6, No. 2, pp. 270-271, 1970

UDC 547.972

We have studied the leaves of S. nutans L. (nile sage). By chromatography on paper and subsequent investigation of the chromatograms in daylight and UV light using chromogenic reagents, we have found seven substances of a polyphenolic nature.

Two substances were isolated by chromatography on Kapron [1].

Substance I, $C_{16}H_{12}O_6$, formed yellow prismatic crystals with mp 257-259° C; acetate $C_{22}H_{18}O_9$ —colorless silky acicular crystals with mp 199.5-201.5° C (from 50% ethanol).

Substance II, $C_{15}H_{10}O_6$, formed yellow prismatic crystals with mp 257-259° C; acetate $C_{23}H_{18}O_{10}$ with mp 226-227° C.

In the cyanidin reaction, both substances formed orange pigments passing completely into octanol, which shows their aglycone nature [2]. They gave a green color with a solution of ferric chloride. This shows that they have a free hydroxyl group in position 5.

The demethylation of substance I with hydriodic acid gave a substance $C_{15}H_{10}O_6$ with mp 226-227° C identical with substance II, which was shown by a mixed-melting point test and R_f values to be identical with luteolin.

From a chromatographic analysis of substances I and the products of its cleavage, a spectral study in the UV region with ionizing and complex-forming reagents, and the absence of depression of the melting point in a mixture, it was identified as diosmetin.

REFERENCES

1. R. Bognar, V. Szabo, and R. E. David, Acta Phys. Chim., 5, 6, 1959.
2. I. B. Harborne, Comparative Biochemistry of the Flavonoids, Acad. Press, New York, 44, 1967.

17 November 1969

Kursk Medical Institute