PHENOLIC COMPOUNDS OF *Dianthus platyodon*

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The plant *Dianthus platyodon* Klok (family Caryophyllaceae), was collected in the forest zone of the Rogan' settlement, Khar'kov oblast, in the flowering period in June, 1974. By chromatographic analysis using color reactions it was established that the flowers contained four flavonoid compounds and the stems and leaves three. By chromatography on a polyamide sorbent we isolated a mixture of two substances (I) and (II). Their separation into individual compounds was performed on Kapron with isopropanol.

Substance (I), $C_{27}H_{30}O_{16}$, had mp 190-191°C, $[\alpha]_D^{20}$ −6° (c 0.1; methanol).

When the glycoside isolated was subjected to acid hydrolysis (5% hydrochloric acid) and enzymatic cleavage with a preparation of *Aspergillus oryzae*, the aglycone quercetin (yield 37%) and D-glucose and L-rhamnose were obtained.

The characteristics given, a mixed melting point, the IR spectrum, and the fact that on stepwise hydrolysis under the usual conditions the bioside did not give an intermediate monoglycoside enabled the substance under investigation to be identified as rutin, and not isorutin [1].

Substance (II), $C_{27}H_{30}O_{17}$, formed yellow crystals with mp 178-180°C, $[\alpha]_D^{20}$ −24° (c 0.1; methanol). On acid hydrolysis (5% hydrochloric acid), this compound gave the aglycone kaempferol (yield 35%) and D-glucose.

Under the action of a 0.5% aqueous solution of caustic potash for 1 h no alkaline hydrolysis took place, which shows the attachment of the sugar residue to the aglycone at C_3 [2].

A 1 → 6 bond was found by periodate oxidation [3] and by enzymatic hydrolysis with rhamnodiastase.

From its physicochemical properties, the products of hydrolysis, and bathochromy, glycoside (II) was identified as kaempferol 3(β-D-glucopyranosyl-β-D-glucopyranoside) or kaempferol 3-gentiobioside.

In addition to flavonoids, from the epigeal part of the plant under investigation we isolated two hydroxycoumarins in the individual state: umbelliferone and scopoletin [4, 5].

This is the first time that these flavonoid compounds and hydroxycoumarins have been obtained from representatives of the family Caryophyllaceae.

LITERATURE CITED

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