XANTHONE GLYCOSIDES OF Iris ensata

K. F. Blinova and N. I. Kalyupanova

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In the epigeal part of Iris ensata Thunb. (Russian iris) collected at the beginning of fruit-bearing in the Buryat ASSR we have found ten substances of phenolic nature.

The combined material was extracted with 25% ethanol with heating on the water bath (3×30 min). The extracts were evaporated, purified with chloroform, and chromatographed on columns of polyamide solvent. Elution with 5% and 10% ethanol gave four substances.

Substance (I), $C_{19}H_{18}O_{11}$, mp 268-270°C (from water); UV spectrum $\lambda_{max}^{C_2H_5OH}$ 365, 315, 260, 240 nm [1, 2] was identified as mangiferin (2-glucosyl-1,3,6,7-tetrahydroxyxanthone) [3, 4]. The identity of substance (I) with this compound was confirmed by comparison with an authentic sample of mangiferin kindly given to us by V. I. Glyzin.

Substance (II) ($C_{19}H_{18}O_{11}$, mp 248-250°C (from water), UV spectrum $\lambda_{max}^{C_2H_5OH}$ 365, 315, 260, 240 nm has been provisionally identified as isomangiferin (4-C-glucosyl-1,3,6,7-tetrahydroxyxanthone) [3, 4].

The presence of mangiferin and xanthones isomeric with it in species of the Iris subdivision of Pogoniris and Apogon has been shown by Bate-Smith and Harborne [3]. It is obvious that the simultaneous presence of these substances is characteristic for these sections and is a taxonomic feature. The combined presence of these two isomers had been reported for species of the genus Hedysarum [4].

Substances (III) and (IV) have been assigned to the flavone group on the basis of color reactions and IR and UV spectra.

LITERATURE CITED

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