FLAVONOIDS OF Nepeta velutina

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From the epigeal part of *Nepeta velutina* Pojark., family Lamiaceae, gathered in the Caucasus (Nakhichevan ASSR, Shakhbuz), in the flowering phase we have isolated four flavone compounds (I-IV).

The evaporated methanolic extract was chromatographed on columns of polyamide and silica gel, using mixtures of water and ethanol and of chloroform and methanol.

Compound (I) was apigenin: yellow crystals with the composition C₁₅H₁₀O₅, M⁺ 270, mp 341-344°C (decomp.); triacetate with mp 180-182°C.

Compound (II) was luteolin: yellow crystals, composition C₁₅H₁₀O₆, M⁺ 286, mp 328-330°C (decomp.); tetraacetate with mp 228-230°C.

Compound (III) was cosmosiin (apigenin 7-O- β -D-glucopyranoside): light yellow crystals with the composition C₂₁H₂₀O₁₀·H₂O, mp 178-180°C (from MeOH), $[\alpha]_D^{17}$ -66° (c 0.3; pyridine).

Compound (IV) was cynaroside (luteolin 7-0- β -D-glucopyranoside): light yellow crystals with the composition C₂₁H₂₀O₁₁, mp 232-234°C, $[\alpha]_D^2$ ° -61° (0.7; formamide). Heptaacetate with mp 245-248°C.

The acid hydrolysis of compounds (III) and (IV) gave the same carbohydrate fragment – D-glucose. Moreover, compounds (III) and (IV) underwent cleavage by β -glucosidase, giving the aglycones apigenin [compound (I)] and luteolin [compound (II)]. The substances isolated were identified on the basis of their NMR, UV, and mass spectra and by a chromatographic comparison with authentic samples.

The compounds isolated have not previously been described for the genus Nepeta [1].

LITERATURE CITED

1. J. B. Harborne and T. J. Mabry, eds., The Flavonoids. Advances in Research, Chapman and Hall, London (1982).

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