

FLAVONOIDS OF *Phaseolus aureus*

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The isolation from the epigeal part of *Phaseolus aureus* (Roxb.) Piper. of coumarins, flavonoids, and phenolcarboxylic acids has been reported previously [1]. In the present communication we give the results of the isolation and chemical study of the flavonoids of ethyl acetate and n-butanol fractions obtained by the procedure described previously [2-4]. The fractions investigated were separated on columns of polyamide using as eluents mixtures of chloroform and ethanol with increasing concentrations of the latter. In this way, eight substances (IX-XVI) were isolated.

Substance (IX) — $C_{15}H_{10}O_4$, mp 318-320°C, λ_{max} (nm) 239, 249, 260 infl., 305; 7,4'-di-hydroxyisoflavone (daidzein) [6, 8, 9].

Substance (X) — $C_{21}H_{20}O_9$, mp 232-233°C, λ_{max} (nm) 310, 255; daidzein 7-O-glucoside (daidzin) [6, 8, 9].

Substance (XI) — $C_{16}H_{12}O_4$, mp 256-258°C, λ_{max} (nm) 305, 260: 7-hydroxy-4'-methoxyisoflavone (formononetin) [6, 8, 9].

Substance (XII) — $C_{22}H_{22}O_9$, mp 210-212°C, λ_{max} (nm) 303, 260: formonoetin 7-O- β -D-glucopyranoside (ononin) [6, 8, 9].

Substance (XIII) — $C_{27}H_{30}O_{17}$, mp 198-200°C; λ_{max} (nm) 367, 260: quercetin 3-O-sophoroside [7].

Substance (XIV) — $C_{21}H_{20}O_{12}$, mp 219-221°C; λ_{max} (nm) 360, 255, 265: quercetin 3-O- β -D-glucopyranoside (isoquercitrin) [7].

Substance (XV) — $C_{21}H_{18}O_{13}$; mp 193-195°C; λ_{max} (nm) 365, 260: quercetin 3-O- β -D-glucuronide [5].

Substance (XVI) — $C_{21}H_{17}O_{12}$; mp 189-191°C; λ_{max} (nm) 354, 267: kaempferol 3-O- β -D-glucuronide [5].

The structures of the substances isolated were established on the basis of physicochemical methods of analysis, UV, IR, and PMR spectra, enzymatic and acid hydrolyses, and a comparison with authentic samples.

This is the first time that substances (IX-XVI) have been isolated from *Phaseolus aureus*.

LITERATURE CITED

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