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We have previously reported on the isolation from the herbage of *Phaseolus vulgaris* L. (kidney bean) of coumarin and cinnamic acid derivatives [1, 2]. Continuing an investigation of the phenolic compounds, we have studied ethyl acetate and butanol fractions, from which substances (VI-XII) of flavonoid nature have now been isolated.

When the ethyl acetate fraction was separated on cellulose impregnated with acetone-formamide (3:1), using benzene-ethyl acetate-acetic acid (30:60:2) as eluent, we isolated substances (VI) and (VII). The butanol fraction was subjected to chromatography on a column of polyamide. Elution with water and with aqueous ethanol yielded fractions each containing 2-3 substances. Rechromatography on polyamide (with chloroform-ethanol in various ratios as eluents) yielded substances (VIII), (IX), (XI), and (XII). Substance (X) was obtained by preparative two-dimensional paper chromatography in the solvent system butanol-acetic acid-water (4:1:2) and 15% acetic acid.

On the basis of the results of a study of the chemical and physicochemical properties, of conversion products, and of analysis of UV, IR, and PMR spectra, substance (VI), composition $C_{15}H_{10}O_6$, mp 274-276°C, was identified as kaempferol; (VII), $C_{15}H_{10}O_7$, mp 310-312°C, as quercetin (VIII), $C_{33}H_{40}O_{19}$, mp 192-195°C, $[\alpha]_D^{20} -107.5^\circ$ (s 0.125; ethanol) as robinin; (IX), $C_{27}H_{30}O_{16}$, mp 183-185°C, $[\alpha]_D^{20} -32.0$ (s 0.1; DMFA), as rutin; (X), $C_{21}H_{18}O_{12}$, mp 189-191°C, as kaempferol 3-glucuronopyranoside; (XI), $C_{21}H_{18}O_{13}$, mp 192-194°C, $[\alpha]_D^{20} -48.0^\circ$ (s 0.5; pyridine) as quercetin 3-glucuronopyranoside; and (XII), $C_{21}H_{20}O_{12}$, mp 229-231°C, $[\alpha]_D^{20} -33.0^\circ$ (s 0.1; DMFA) as isoquercitrin [3].

LITERATURE CITED

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