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A NEW IRISOLIDONE-7-*O*-GLUCOSIDE AND TECTORIDIN FROM *PUERARIA* SPECIES

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Key Word Index—*Pueraria* spp.; Leguminosae; isoflavone; irisolidone-7-*O*-glucoside; tectoridin.

Plant. Pueraria lobata (Will.) Ohwii (*P. hirsuta* Matsumura, *P. thunbergiana* Benth.) (Voucher specimen on deposit in Kinki University) was collected in September 1972 at Mt. Ikoma, Osaka, Japan. *Plant. part examined.* Flowers. *Previous work.* On leaves,[1] on roots.[2]

Present work. The MeOH extract of the air-dried flowers was chromatographed over silica gel column. Elution with $CHCl_3$–MeOH (17:3) gave a new isoflavone–glycoside (I), yield 0·25%, colorless needles, m.p. 239° (50% EtOH), $[\alpha]_D^{24°}$ −81° (*c* 1·0, pyridine) (Found: C, 53·98; H, 5·22. $C_{23}H_{24}O_{11}.2H_2O$ requires: C, 53·90; H, 5·51%). On acidic hydrolysis, I afforded as an aglycone, irisolidone[3] (m.p., m.m.p.), and D-glucose (co-TLC, osazone) as the sugar. The position of the glycoside linkage was deduced from the UV spectra. The absorption maximum of I at 270 nm in EtOH shifted to 280 nm upon the addition of $AlCl_3^4$, but did not show any shift upon the addition of NaOAc. On the other hand, the absorption maximum of irisolidone showed a bathochromic shift of 10 nm upon the addition of NaOAc. This shift is characteristic of isoflavonoids with a free 7-hydroxyl group.[4] Thus, this new isoflavone (I) is irisolidone-7-*O*-glucoside.

Plant. Pueraria montana (Lour.) Merrill (*P. tonkiensis* Gagn., *P. thunbergiana* Benth. var. *formosa* Hosokawa) (Voucher specimen on deposit in Kinki University) was collected in August 1968 at Karenko, Formosa. *Plant part examined.* Flowers. *Uses.* Folk medicine for the treatment of crapulence. *Previous work.* None.

Present work. The suspension of the MeOH extract in water was extracted with ether to give yellow precipitates in aqueous layer. The collected precipitate was purified by means of silica gel column. Elution with $CHCl_3$–MeOH (17:3) gave tectoridin[5] (m.p., m.m.p., IR, hexaacetate, m.m.p.), yield 0·5%. This is the first record of tectoridin in the genus *Pueraria*.

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VICENIN-1 AND -2 IN THE SEEDS OF *TRIGONELLA FOENUMGRAECUM*

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Key Word Index—*Trigonella foenumgraecum*; Leguminosae; glycoflavones; vicenin-1; vicenin-2; vitexin; saponaretin; homoorientin.

Adamska and Lutomski[1] isolated four *C*-glycosylflavones from the seeds of *Trigonella foenumgraecum* L.; two were identified as vitexin and vitexin-7-glucoside, the third as an arabinoside of orientin or iso-orientin and the fourth as a diglycoside whose structure was not known. In order to clarify the exact structures of the unidentified compounds, samples of *Trigonella* seeds were obtained from the local market in Munich and flavonoids were isolated by methods described by Adamska and Lutomski.[1] Vitexin, saponaretin, homoorientin and in good quantities vicenin-1 (apigenin 6-xyloside-8-glucoside) and vicenin-2 apigenin 6,8-di-*C*-glucoside) were isolated from the local samples and identified* by direct comparison with authentic materials (co-chromatography, UV and IR). The other compounds mentioned by Adamska and Lutomski could not be traced in our sample. Ecological factors may explain why vicenin-1 and vicenin-2 occur in our market sample and not in that of Adamska and Lutomski.

* Our grateful thanks to Professor J. Chopin who was kind enough to confirm our identification of vicenin.

[1] ADAMSKA, M. and LUTOMSKI, J. (1971) *Planta Med.* **20**(3), 224.