

Plant. *Duranta repens* L. (Voucher specimen No. 3/72 deposited at JIPMER) (Syn. *D. plumieri* Jacq.) collected from Botanic Gardens, Pondicherry. *Previous work.* Malvidin⁷ of the leaves.

Extraction and working up of the leaves in the same manner as above gave pectolinarigenin and the flavanone derivative with very small quantities of scutellarein.

Comment. It is quite likely that the non-glucosidal bitter principle, C₁₇H₁₆O₆, m.p. 213° isolated from *C. phlomides*¹ is pectolinarigenin. The earlier isolation of scutellarein, dinatin and scutellarein-4'-L-arabinoside from *C. nerrifolium*⁶ and the present occurrence of scutellarein and pectolinarigenin in *C. phlomides* and *D. plumieri* are in agreement with the flavonoid pattern of Tubiflorae; *Verbenaceae* joining the *Labiatae*, *Bignoniaceae*, *Gesneriaceae* and *Scrophulariaceae* in having flavones with an extra 6-hydroxyl group and 4'-methylated flavones.⁸

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⁷ W. G. C. FORSYTH and N. W. SIMMONDS, *Proc. R. Soc.* **142**, 549 (1954).

⁸ J. B. HARBORNE, *Comparative Biochemistry of Flavonoids*, p. 216, Academic Press, London (1967).

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IRIDOIDS FROM *STILBE* SPECIES*

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Key Word Index—*Stilbe phyllicoides*; *Stilbe ericoides*; Verbenaceae; iridoids; unedoside.

Plant. *Stilbe phyllicoides* D.C. *Source.* South Africa, Cape, District Swellendam.

Leaf and stem. From 200 g plant material, 100 mg unedoside¹ (0.05%) was isolated by methods described previously.² The compound was identified by direct comparison with an authentic sample isolated from *Arbutus unedo* (TLC,³ PC,³ MS, NMR, IR).

Plant. *Stilbe ericoides* L. *Source.* South Africa, near Cape Town.

* Part III in the series "Iridoids and Ecdysones from Verbenaceae". For Part II see Ref. 3.

¹ T. A. GEISSMAN, W. F. KNAACK, JR. and J. O. KNIGHT, *Tetrahedron Letters* 1245 (1966).

² H. RIMPLER, *Arch. Pharmaz.* in press.

³ H. RIMPLER, *Phytochem.* **11**, 2653 (1972).

Leaf and stem. (150 g) Isolation by standard procedures² gave 19 mg unedoxide (0.01 %), identified as described above, and a mixture of other iridoids. Column chromatography of the mixture on silica gel (*n*-BuOH-MeOH-H₂O, 4 : 1 : 5) followed by gel filtration on Sephadex afforded 80 mg of a pure amorphous compound. The structure of this apparently new iridoid (m.p. of acetate: 140–142°) is now under investigation.

Voucher specimens are deposited in WE Pharmakognosie der Freien Universität Berlin.

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DICOTYLEDONAE

IRIDACEAE

ISOFLAVONES OF *IRIS KUMAONENSIS* AND *I. GERMANICA*

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Key Word Index—*Iris kumaonensis*; *I. germanica*; Iridaceae; isoflavones; iridin; irisolone.

Plant. *Iris kumaonensis* Wall. and *I. germanica* L. *Occurrence.* *I. kumaonensis*. Western Himalayas, from Kashmir to Kumaon, 8000–12 000 ft. *I. germanica*. Cultivated in Kashmir Valley. *Uses.* Medicinal.¹ *Previous work.* *I. kumaonensis*. None. *I. germanica*, Essential oil,¹ a C-glycosyl flavone² and an isoflavone glucoside.³

I. kumaonensis. Defatted, EtOH extract of whole plant (dry, 390 g) on concentration yields, 7-(glucosyloxy)-5,3'-dihydroxy-6,4',5'-trimethoxyisoflavone (iridin,³ 15 g), m.p., UV, IR, *m/e* 522 (M⁺) and NMR, diacetate, m.p. and UV; acid hydrolysis to 5,7,3'-trihydroxy-6,4',5'-trimethoxyisoflavone (irigenin^{3,4}), m.p., UV, IR, *m/e* 360 (M⁺) and NMR (2-H, 2.05 τ ; CDCl₃), triacetate, m.p. and UV, and glucose, PC.

¹ R. N. CHOPRA, S. L. NAYAR and I. C. CHOPRA, *Glossary of Indian Medicinal Plants*, p. 143, C.S.I.R., New Delhi (1956).

² A. KAWASE and K. YAGESHETA, *Agric. Biol. Chem. Tokyo* 32(4), 537 (1968).

³ W. BAKER, *J. Chem. Soc.* 1022 (1928).

⁴ W. BAKER *et al.*, *Tetrahedron Letters* 5, 6 (1960).