

FLAVONOIDS IN *LESPEDEZA CAPITATA*

H. WAGNER,* M. A. IYENGAR and L. HÖRHAMMER

Institut für Pharmazeutische Arzneimittellehre der Universität München, Germany

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Plant. Lespedeza capitata Michx. Source. Inverni and Della Beffa S.P.A. Milano. Previous work. Lespecapitoside,¹ homoorientin,² kaempferitrin,³ flavonic heteroside,⁴ flavones.⁵

Compounds isolated. Iso-orientin, saponaretin, vitexin, orientin and in traces isorhamnetin-3-rutinoside, quercetin-3-rhamnoglucoside (rutin) and kaempferol-3-rhamnoglucoside were isolated from the aerial portion of the plant by methods described in our earlier report⁶ and identified by direct comparison with authentic material by cochromatography (TLC·3 solvents) and UV analysis. However, there was no trace of kaempferitrin.

* Present address: Visiting Professor, College of Pharmacy, Ohio State University, Columbus, Ohio, U.S.A.

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Key Word Index—*Lespedeza capitata*; Leguminosae; C-glycoflavones; 3-rutinosides of kaempferol, quercetin; isorhamnetin.

MALVACEAE

FLAVONOIDS OF FOUR MALVACEOUS PLANTS

S. SANKARA SUBRAMANIAN and A. G. R. NAIR

Department of Chemistry, Jawaharlal Institute of Postgraduate, Medical Education and Research, Pondicherry-6, India

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The flower petals of *Hibiscus rosasinensis*, *Hibiscus sabdariffa* var. *altissima*, *Gossypium barbadense* and *Abutilon indicum* (all collected from gardens in Pondicherry) have been examined for their flavonols and anthocyanins adopting standard methods^{1,2} for their isolation and identification. A number of known flavonoids have been isolated/identified (Table 1).

¹ J. B. HARBORNE, *Comparative Biochemistry of Flavonoid Compounds*, Academic Press, London (1967).

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TABLE 1. FLAVONOIDS OF FOUR MALVACEOUS PLANTS

Sample No.	Plant	Flavonols	Anthocyanins
1	<i>Hibiscus rosasinensis</i> (Deep yellow, multi-petalled) (Ivory white, five petalled)	* Quercetin-3-diglucoside Quercetin-3,7-diglucoside Quercetin-3-sophorotrioside Above three and kaempferol-3-xylosylglucoside	Cyanidin-3,5-diglucoside Cyanidin-3-sophoroside-5-glucoside Same as above
2	<i>Hibiscus sabdariffa</i> var. <i>altissima</i>	* Gossypetin-8-glucoside (0.4%) * Gossypetin-7-glucoside	Cyanidin-3,5-diglucoside Cyanidin-3-(2 ^o -glucosyl rutinoside)
3	<i>Gossypium barbadense</i>	* Gossypetin-3-glucoside * Quercetin-7-glucoside (4%) Quercetin-3-glucoside Quercetin-3-galactoside Kaempferol-3-galactoside	(Anthocyanin negligible)
4	<i>Abutilon indicum</i>	* Gossypetin-8-glucoside (3%) * Gossypetin-7-glucoside	Cyanidin-3-rutinoside

* Indicates isolation.

Hibiscus rosasinensis resembles *Hibiscus mutabilis*³ in its flavonoid pattern; we could not identify mekocyanin⁴ or hibiscetin⁵ recorded earlier. *Hibiscus sabdariffa* has been earlier recorded to contain hibiscitrin⁶ and gossytrin⁷ (gossypetin-3-glucoside) while *H. sabdariffa* var. *altissima*⁸ contains no hibiscetin. *Gossypium barbadense*⁹ has been extensively studied for the effect of mutation on the flavonoid pattern; the South Indian variety has been found to contain no gossypetin (Table 1), but closely resembles *G. hirsutum* morphologically¹⁰ and in biosynthesising significant quantities of quercetin-7-glucoside.¹¹ *Abutilon indicum* differs from *A. avicennae*¹² and resembles *A. insigne*¹ in flavonoid pattern.

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Key Word Index—*Hibiscus*; *Gossypium*; *Abutilon*; Malvaceae; flavonoids; quercetin; gossypetin; kaempferol.