

LEGUMINOSAE
FLAVONOIDS FROM *ADENANTHERA PAVONINA*

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Plant. *Adenanthera pavonina* Linn. *Source.* Bombay. *Uses.* Wood for construction, seeds as weights. *Previous work.* Sitosterol and fatty acids from oil of seeds.¹

As a part of our program of investigation of phenolics and quinonemethides from red resins and woods,² we have studied the wood of *Adenanthera pavonina* Linn., which is also known as "Red sandal wood". The wood was extracted with Et₂O, then with MeOH. Concentration of the methanolic extract afforded crystals of robinetin, which was recrystallized from MeOH. The filtrate was chromatographed through a column of polyamide Woelm with H₂O-acetone mixtures from 6:1 to 2:1. The fractions obtained were subjected to preparative TLC on Merck silica gel with benzene-Et₂O-HCOOH (50:50:2) to give pure samples of the chalcone, butein, and of the flavanonols ampelopsin (dihydromyricetin) and dihydrorobinetin. The last fractions from the column gave more robinetin.

Robinetin^{3,4} was identified by m.p., UV, IR, NMR and MS of the compound and of the pentaacetate. Ampelopsin^{3,4} and dihydrorobinetin^{3,4} were identified by UV, MS and NMR spectra of the compounds and of their acetates, and butein⁴ by UV, MS and NMR spectra of the chalcone itself. Some 2,4-dihydroxybenzoic acid was isolated from the first fractions of the polyamide column: a major amount was present in the ethereal extract of the wood.

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¹ S. M. MUDIBRI, P. RAMASWAMI AYYAR and H. E. WATSON, *J. Indian Ist. Science* **11 A**, 173 (1928); *Centralblatt*, **I**, 1358 (1929).

² G. CARDILLO, L. MERLINI, G. NASINI and P. SALVADORI, *J. Chem. Soc. C*, 3967 (1971).

³ T. J. MABRY, K. R. MARKHAM and M. B. THOMAS, *The Systematic Identification of Flavonoids*, Springer-Verlag, Berlin (1970).

⁴ T. A. GEISSMAN, *The Chemistry of Flavonoid Compounds*, Pergamon Press, Oxford (1962).

Key Word Index—*Adenanthera pavonina*; Leguminosae; flavonoids; robinetin; butein; ampelopsin; dihydrorobinetin.