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MONOCOTYLEDONAE

LILIACEAE

ANTHOCYANINS OF RED SQUILL, *URGINEA MARITIMA*

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Key Word Index—*Urginea maritima*; Liliaceae; anthocyanins; cyanidin 3-monoglucoside; pelargonidin 3-monoglucoside; cyanidin 3,5-diglocoside; cyanidin triglucoside; *p*-coumaric acid acyl derivatives.

Plant. Tetraploid red bulbs of *Urginea maritima* Bak. collected in Balearic Islands. *Previous work.* Cyanidin 3-monoglucoside, free and acylated with caffeic acid,[1] quercetin, dihydroquercetin, kaempferol 3-triglucoside, dihydroquercetin 4′-monoglucoside and quercetin 3-monoglucoside.[2]

Compounds identified. Cyanidin and pelargonidin 3-monoglucoside, both free and actylated with *p*-coumaric acid were isolated by preparative PC from the ethanolic extracts and identified by co-chromatography (six solvent PC) and UV analysis.[3] After freeing from polymeric 'sinistrins' by gel filtration on Sephadex G25 according to Somers,[4] it was possible to identify, by the same methods, cyanidin 3,5-diglucoside; a cyanidin triglycoside aceylated with *p*-coumaric acid was detected in very small amount. Free caffieic acid was been also indentified in these bulbs.

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[1] F. A. VEGA and C. MARTIN, *Nature, Lond.* **197,** 382 (1963).
[2] M. FERNANDEZ, F. A. VEGA, T. ARRUPE and J. RENEDO, *Phytochem.* **11,** 1534 (1972).
[3] J. B. HARBORNE, *Comparative Biochemistry of Flavonoids,* Academic Press, London (1967).
[4] T. C. SOMERS, *Nature, Lond.* **209,** 368 (1966).