

ANTHOCYANINS OF *LAGERSTROEMIA INDICA* FLOWERS

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Key Word Index—*Lagerstroemia indica*; Lythraceae; new anthocyanins.

Plant and source. *Lagerstroemia indica* L., collected from the N.R.C. grounds. *Uses.* Ornamental. *Previous work.* None.

Plant part examined. The flowers were extracted with 0.1 % methanolic HCl. Following standard procedures,^{1,2} the extract revealed three anthocyanins which were identified by strong and mild acid hydrolysis, H₂O₂ oxidation and UV spectra, as delphinidin-3-arabinoside, petunidin-3-arabinoside and malvinidin-3-arabinoside. This is the first record of the isolation of the three arabinosides, although they had been reported as an unseparable mixture with other arabinosides in the berries of *Vaccinium angustifolium*.³ Also, delphinidin-3-arabinoside has been recently identified in the Epacridaceae.⁴ Along with the three anthocyanins, gallic acid, methyl gallate, ellagic acid and traces of three C-glycosides were also identified.

TABLE 1

Compound	R_f in solvent ($\times 100$)†				MeOH-HCl*	AlCl ₃
	BAW	BuHCl	3% HCl	HOAc-HCl	λ_{\max} (m μ)	$\Delta\lambda$ (m μ)
Delphinidin-3-arabinoside	27	12	3	20	271,538	10
Petunidin-3-arabinoside	38	16	4	25	232,538	11
Malvidin-3-arabinoside	50	24	8	33	273,538	0

* The E_{440}/E_{\max} and $E_{\text{acyl}}/E_{\max} = 18-20$ for all three anthocyanins.

† Solvents: BAW (*n*-BuOH-HOAc-H₂O, 4:1:5), BuHCl (*n*-BuOH-2 N HCl, 1:1), 3% HCl and HOAc-HCl (HOAc-conc. HCl-H₂O, 15:3:82).

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¹ HARBORNE, J. B. (1958) *J. Chromatog.* **1**, 473.

² HARBORNE, J. B. (1967) *Comparative Biochemistry of Flavonoids*, Academic Press, New York.

³ FRANCIS, F. J., HARBORNE, J. B. and BARKER, W. G. (1966) *J. Food Sci.* **31**, 583.

⁴ JARMAN, S. J. and CROWDEN, R. K. (1971) *Phytochemistry* **10**, 2235.