

OXOAPORPHINE ALKALOIDS FROM *ROLLINIA SERICEA*

ROBIN M. BRASH and ALBERT T. SNEDEN*

Department of Chemistry, Virginia Commonwealth University, Richmond, Virginia 23284

During the course of fractionation of an ethanolic extract of *Rollinia sericea* R.E. Fries (Annonaceae) for cytotoxic constituents, three oxoaporphine alkaloids—liriodenine, homomoschatoline (o-methylmoschatoline), and atherospermidine—were isolated.

EXPERIMENTAL

PLANT MATERIAL.—Root wood and bark of *R. sericea* R.E. Fries (B629032, PR 45895) was collected in Brazil in April 1976, and supplied by the Medicinal Plant Resources Laboratory, USDA, Beltsville, Maryland, where voucher specimens are preserved.

EXTRACTION AND ISOLATION.¹—Dried, ground root wood and bark (10 kg) of *R. sericea* was extracted with 95% ethanol (soxhlet), and the resulting extract was worked up by standard procedures (1). The alkaloids were obtained after several chromatographic steps and identified by standard spectral data: liriodenine (2,3) (144 mg), mp 279–281° (lit. (2) 282°), ir (KBr) 1661 cm⁻¹, pmr (CF₃CO₂H) δ 6.68 (s, 2H), 7.59 (s, 1H), 7.81–8.95 (6H), ms *m/e* 275, 247, 189; homomoschatoline (4,5) (74 mg), mp 182–188° (dec) (lit. (4) 186–188°), ir (CHCl₃) 1665 cm⁻¹, pmr (CDCl₃) δ 4.08 (s, 3H) 4.10 (s, 3H), 4.19 (s, 3H), 7.27–9.1 (6H), ms *m/e* 321, 306, 278, 263, 164; atherospermidine (3) (4 mg), ir (CHCl₃) 1664 cm⁻¹, pmr (CF₃CO₂H) δ 4.55 (s, 3H), 6.67 (s, 2H), 7.2–8.9 (6H), ms *m/e* 305, 290, 262, 149.

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LITERATURE CITED

1. S. M. Kupchan, M. I. Suffness, and E. M. Gordon, *J. Org. Chem.*, **35**, 1682 (1970).
2. M. A. Buchanan and E. E. Dickey, *J. Org. Chem.*, **25**, 1389 (1960).
3. I. R. C. Bick and C. K. Douglas, *Tetrahedron Lett.*, 1629 (1964).
4. M. P. Cava, K. T. Buck, I. Noguchi, M. Srinivasan, M. G. Rao, and A. I. DaRocha, *Tetrahedron*, **31**, 1667 (1975).
5. M. Hasegawa, M. Sojo, A. Lira, and C. Marquez, *Acta Cient. Venezolana*, **23**, 165 (1972).

¹Full details of the isolation and identification of the compounds are available on request to the senior author.