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Biochemical Systematics and Ecology 30 (2002) 605–607

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biochemical
systematics
and ecology

Pentatronol from *Alchornea sidifolia* (Euphorbiaceae)

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Received 30 March 2001; accepted 9 September 2001

Keywords: *Alchornea sidifolia*; Euphorbiaceae; Triterpenoid; Pentatronol; Sterol; β -Sitosterol

1. Subject and source

Alchornea sidifolia Muell. Arg. is a tree up to 30 m high, which occurs mainly in the forests of the Southwest of Brazil through Argentina (Secco, 1997). Leaves of *A. sidifolia* were collected in the Botanical Institute of São Paulo, Brazil, in December 1998, where a voucher specimen (*Cordeiro* 1771) is maintained at the Botanical Institute of São Paulo Herbarium.

2. Previous work

None.

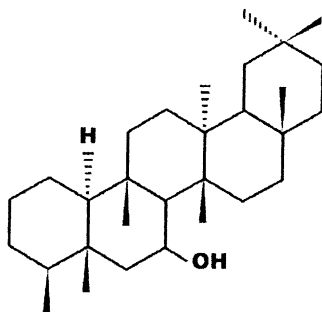
3. Present study

Ground leaves were extracted with MeOH (three times, 24 h). The MeOH extract was partitioned with petroleum ether and chloroform. The chloroform fraction, which

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showed antifungal activity, was submitted to silica gel CC affording a triterpenoid and a sterol, both obtained by crystallization. These compounds were identified by their spectral data (UV, NMR and EI-MS) and comparison with the literature, respectively as the known triterpene pentatronol (Rasool et al., 1992) and β -sitosterol (Chaurasia and Wichtl, 1987). Pentatronol, a friedelan-7 α -ol (**1**), has only been isolated once from *Pentatropis spirallis*, an Asclepiadaceae species (Rasool et al., 1992). It was inactive when assayed against *Cladosporium ladosporium sphaerospermum* as was β -sitosterol, suggesting that other compounds present in the crude extract are responsible for the positive result.

**1**

4. Chemotaxonomic significance

Triterpenoids lacking oxygen at C-3 occur sparsely in Euphorbiaceae, as for example in *Euphorbia tirucalli*. Pentatronol, found in *A. sidifolia* also lacks oxygen at C-3. The presence of oxygen in C-7 has been observed in the triterpenoids of *Putranjiva roxburghii* (Sengupta et al., 1997) and *Euphorbia supina* (Tanaka and Matsunaga, 1989, 1991a,b) as well as in *A. sidifolia*. Thus, the lack of oxygen in C-3 and the presence of oxygen in C-7 seem to be relatively common in the family.

Acknowledgements

This work was supported by FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo — Proc. 98/17107-3). We are grateful to Prof. A. Douglas Kinghorn, Department of Medicinal Chemistry and Pharmacognosy, College of Pharmacy, University of Illinois at Chicago, for arranging the biological testing and for permitting the phytochemical work to be conducted in his laboratory.

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