ELSEVIER

Fitoterapia 72 (2001) 594–595

FITOTERAPIA

www.elsevier.com/locate/fitote

Phytochemical communication

24-Methylenecycloartenone from *Bhesa nitidissima*

U.L.B. Jayasinghe[a,*], H.S.K. Vithana[b], G.P. Wannigama[b], Y. Fujimoto[c]

[a] *Institute of Fundamental Studies, Hantana Road, Kandy, Sri Lanka*
[b] *Department of Chemistry, University of Peradeniya, Peradeniya, Sri Lanka*
[c] *Department of Material Science, Tokyo Institute of Technology, Meguro, Tokyo 152-8551, Japan*

Received 14 November 2000; accepted in revised form 13 January 2001

Abstract

Complete ^{1}H and ^{13}C-NMR assignments are reported for 24-methylenecycloartenone **(1)** isolated from the stem of *Bhesa nitidissima*.

Keywords: *Bhesa nitidissima*; 24-Methylenecycloartenone; Triterpenoids

Plant. *Bhesa nitidissima* Kostermans (Celastraceae) stems collected from Central Province of Sri Lanka, in May 1997 and identified by Mr Aruna Weerasooriya, Royal Botanic Garden, Peradeniya, Sri Lanka.

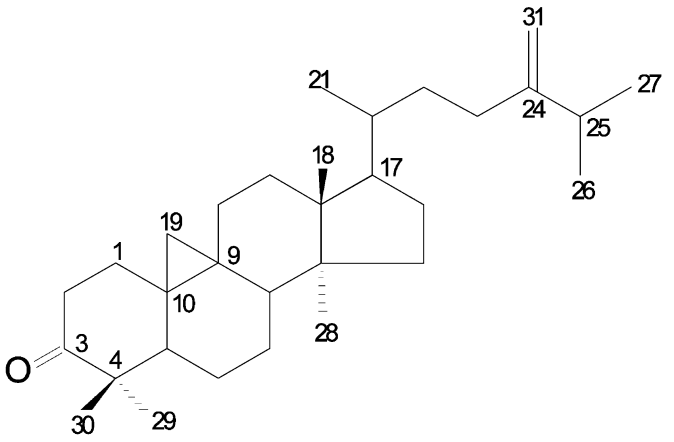
Used in traditional medicine. *Bhesa* spp are used for vomiting and diarrhoea [1].

Previously isolated constituents. No reports.

New-isolated constituent. 24-Methylenecycloartenone **(1)** [2] (yield: 0.015% on dried wt.).

* Corresponding author. Tel.: +94-8-232002; fax: +94-8-232131.
E-mail address: lalith@ifs.ac.lk (U.L.B. Jayasinghe).

0367-326X/01/$ - see front matter
PII: S0367-326X(01)00277-5



1

24-Methylenecycloartenone (**1**). ^{1}H-NMR (400 MHz, $CDCl_3$): δ 1.86 (1H, *td*, *J* 14.0, 5.6 Hz, H-1′), 1.54 (1H, *m*, H-1″), 2.71 (1H, *td*, *J* 14.0, 5.6 Hz, H-2′), 2.31 (1H, *m*, H-2″), 1.72 (1H, *dd*, *J* 12.0, 4.4 Hz, H-5), 1.55 (2H, *m*, H-6), 1.92 (1H, *m*, H-7′), 1.31 (1H, *m*, H-7″), 1.59 (1H, *m*, H-8), 1.40 (1H, *m*, H-11′), 1.10 (1H, *m*, H-11″), 1.32 (2H, *m*, H-12), 1.67 (2H, *m*, H-15), 2.05 (1H, *m*, H-16), 1.14 (1H, *m*, H-16″), 1.64 (1H, *m*, H-17), 1.00 (3H, *s*, Me-18), 0.79 (1H, *d*, *J* 4.4 Hz, H-19′), 0.58 (1H, *d*, *J* 4.4 Hz, H-19″), 1.41 (1H, *m*, H-20), 0.90 (3H, *d*, *J* 5.6 Hz, Me-21), 1.13 (2H, *m*, H-22), 2.13 (1H, *m*, H-23′), 1.89 (1H, *m,* H-23″), 2.24 (1H, *m*, H-25), 1.03 (3H, *d*, *J* 6.8 Hz, Me-26), 1.03 (3H, *d*, *J* 6.8 Hz, Me-27), 0.91 (3H, *s*, Me-28), 1.05 (3H, *s*, Me-29), 1.10 (3H, *s,* Me-30), 4.72 (1H, *br s*, H-31′), 4.67 (1H, *br s*, H-31″); ^{13}C-NMR (100 MHz, $CDCl_3$): 33.41 (C-1), 37.46 (C-2), 216.59 (C-3), 50.22 (C-4), 48.43 (C-5), 21.50 (C-6), 28.14 (C-7), 47.88 (C-8), 21.10 (C-9), 26.99 (C-10), 25.86 (C-11), 35.56 (C-12), 45.35 (C-13), 48.75 (C-14), 32.81 (C-15), 26.75 (C-16), 52.29 (C-17), 18.30 (C-18), 29.54 (C-19), 36.10 (C-20), 18.06 (C-21), 34.99 (C-22), 31.31 (C-23), 156.88 (C-24), 33.82 (C-25), 21.99 (C-26), 21.86 (C-27), 19.30 (C-28), 22.18 (C-29), 20.76 (C-30), 105.97 (C-31).

References

[1] Uji T, Wiriadinata H, Kitagawa I, Shibuya H, Ohashi K. Prociding Seminar dan Lokakarya Nasional Etnobotani — 1992, February, Cisarua-Bogor. Perpustakaan Nasional RI Publisher, Jakarta, 1992. 60.

[2] Ekong DEU, Olagbemi EO, Spiff AI. Chem Ind 1968;51:1808.