Open access Journal International Journal of Emerging Trends in Science and Technology
Impact Factor: 2.838 DOI: http://dx.doi.org/10.18535/ijetst/v3i08.04

Two New Compounds from Perisrtophe Bicalyculata

Authors
H.S. Pandey, R.P. Pandey*, R. G. Singh
Department of Chemistry
Buddha P G College, Kushinagar-274403, India
*Corresponding Author
R.P. Pandey*
Email: *rppandeybpgc@gmail.com*

Abstract
Peristrophe bicalyculata (Acanthaceae) is 60–180 cm in height and found throughout India, Afghanistan and Africa. It is commonly known as kali aghedi in Hindi and kakajangha in Sanskrit. The herb is used for its anti-bacterial property (tuberculostatic), snake poison, in bone fracture, sprain, fever, cold, cough and for ear and eye treatments. In this paper Isolation and characterization of two new compounds Nonatriacontan-5,6,7,8-tetrol (1) and 31-hydroxytetratriacontan-10-one (2) have been reported along with β-sitosterol.
Key words: *Peristrophe bicalyculata, Aliphatics*

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Plant

Peristrophe bicalyculata Nees (Acanthaceae) was collected from nearby areas of Gorakhpur, India and identified by Department of Botany, D D U Gorakhpur University Gorakhpur, India.

Uses in traditional medicine: The plant is used as antidote for snake poison, antinematode and pesticides. (Kirtikar K R , Basu B D; Siddiqui Z A, Mahmood I; Ahmad N, Sarabhoy A K, Kamal; 1975,1994,1995)

Previously Isolated compounds:14-methyltritriacont-14-en-15-ol and 35-hydroxy nonatriacontanal.[4] (Singh R S, Pandey R P ,Singh B K , Singh R G;2000)

New Isolated constituents : β- sitosterol m.p. 133-34^{0}c[5] (Misra T N, Singh R S , Upadhyay J, Srivastav R;1984), Nonatriacontan-5,6,7,8-tetrol (1) and 31-hydroxytetratricontane-10-one (2); yields: 55 mg,43 mg and 38mg respectively from 4.0 kg of aerial parts of the plant.

Nonatriacontan-5,6,7,8-tetrol:m.p. 96-97^{0}c, R_f 0.18 (hexane-benzene,1:3); IR bands(KBr):3450, 2920, 2850, 1467, 1263, 1097, 1024, 802 and 722 cm^{-1}; ^{1}HNMR(300 Mhz,$CDCl_3$) :δ 0.88(6H, t,J=7.0 Hz, 2 -CH_3), 1.25(62H,brs,31>CH_2), 1.35 (4H,brs, - C$\underline{H}_2$-$(CHOH)_4$- C$\underline{H}_2$), 3.64 (2H, m, 2 >C$\underline{H}$OH), 3.93(1H >C$\underline{H}$OH), 4.18 (1H, m, >C$\underline{H}$OH) and 5.85-7.75(4H, 4O$\underline{H}$) ; MS m/z (rel. int.): 612$[M]^+$($C_{30}H_{80}O_4$,6.4), 599 (6.2), 585 (40.0),555 (2.0), 530(4.0), 435(2.0), 195 (25.0), 194(53.0),

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31-hydroxytetratricontane-10-one[(2)]: m.p.100-101^{0}C , R_f 0.25 (Benzene); IR bands (KBr): 3427, 2920,2850,1706,1463and 723 cm^{-1} ; ^{1}HNMR(300 Mhz,$CDCl_3$) :δ 0.88(6H, t, J=7.0 Hz,2- CH_3), 1.25(48H,brs,24>CH_2),1.57(8H,brs,-CH_2CHOHCH_2-and-CH2CH_2COCH_2CH_2-), 3.66(1H,m,>CHOH-); MS m/z(rel. int.): 508[M]$^+$ ($C_{34}H_{68}O_2$,5.4),480(12.8), 479 (1.5), 465 (2.0), 452 (14.6), 435 (1.5), 424 (18.2),421(2.0), 396 (18.5), 381 (4.6),354 (5.3), 353 (1.5),297 (4.4),241(5.6), 185(14.5), 171 (8.3), 157(3.3), 155 (3.2), 143 (6.2), 129 (50.0), 127 (6.0), 112 (6.0) , 111 (33.0), 97 (55.0), 87 (20.0), 83 (58.0), 73 (80.0), 57 (100) and 43 (90.0).

Me-$(CH_2)_3$-$(CHOH)_4$-$(CH_2)_{30}$-Me

1

Me-$(CH_2)_2$-CHOH-$(CH_2)_{20}$-CO-$(CH_2)_8$-Me

2

Acknowledgements

We are grateful to Department of Chemistry, D.D.U. Gorakhpur University, Gorakhpur and RSIC, CDRI, Lucknow for providing laboratory and spectral facility respectively.

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