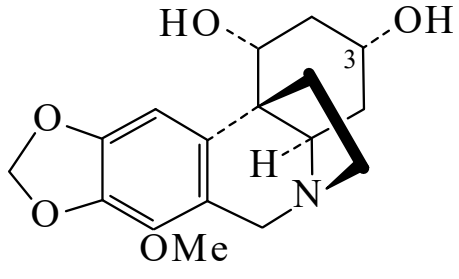
>>**Entry Name: Nerbowdine**
Synonym(s): Haemanthine. Hemanthine. Buphanitine



CAS Registry Number: 4673-18-1

Molecular Formula: $C_{17}H_{21}NO_5$
Molecular Weight: 319.357
Accurate Mass: 319.141974
Percentage Composition: C 63.94%; H 6.63%; N 4.39%; O 25.05%
Biological Source: Alkaloid from the bulbs of *Boöphone disticha, Nerine bowdenii, Crinum erubescens* and from unidentified *Brunsvigia* sp. (Amaryllidaceae)
Physical Description: Cryst. ($CHCl_3$/Me_2CO or EtOH)
Melting Point: Mp 230-232°. Mp 244-245 dec.° (dimorph.)

>>**Derivative:** Hydrochloride
Physical Description: Fine needles (EtOH aq.)
Melting Point: Mp 254-265 dec.°
Optical Rotation: $[\alpha]_D^{23}$ –86.1 (c, 0.87 in H_2O)

>>**Derivative:** Nitrate

Melting Point: Mp 222-224°

>>**Derivative:** O^3-Ac
Synonym(s): 3-*O*-Acetylnerbowdine

Molecular Formula: $C_{19}H_{23}NO_6$
Molecular Weight: 361.394
Accurate Mass: 361.152539
Percentage Composition: C 63.15%; H 6.41%; N 3.88%; O 26.56%
Biological Source: Alkaloid from the bulbs of *Brunsvigia disticha* and *Nerine crispa* (Amaryllidaceae)
Physical Description: Cryst. (Et_2O)
Melting Point: Mp 207-209°
Optical Rotation: $[\alpha]_D^{21}$ –116 (c, 0.40 in $CHCl_3$). $[\alpha]_D^{21}$ –45 (c, 0.395 in EtOH)

>>**Derivative:** Di-Ac

Molecular Formula: $C_{21}H_{25}NO_7$
Molecular Weight: 403.431
Accurate Mass: 403.163104
Percentage Composition: C 62.52%; H 6.25%; N 3.47%; O 27.76%
Melting Point: Mp 151-152°
Optical Rotation: $[\alpha]_D^{25}$ –30.5 (c, 1.05 in $CHCl_3$)

References:

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Goosen, A. *et al.*, *J.C.S.*, 1960, 1094, *(isol)*
Hauth, H. *et al.*, *Helv. Chim. Acta*, 1961, **44**, 491, *(isol, deriv)*
Lloyd, H.A. *et al.*, *J.O.C.*, 1962, **27**, 373, *(struct)*
Döpke, W., *Naturwissenschaften*, 1962, **49**, 469, *(deriv)*
Hauth, H. *et al.*, *Helv. Chim. Acta*, 1963, **46**, 810, *(deriv)*
Wildman, W.C. *et al.*, *J.O.C.*, 1968, **33**, 3749, *(isol)*