Desacetoxy VLB hydrazide (V) was prepared in boiling absolute ethanol and hydrazine, analogously to that of VLB[3], and crystallized from CH_2Cl_2-MeOH, m.p. 202–207° (d). High resolution mass spectrum, $C_{41}H_{54}N_6O_4$ Calcd. 694.4206; Found: 694.4209. Anal. Calcd for: $C_{41}H_{54}N_6O_4 \cdot CH_3OH$. C, 69.39; H, 8.04; N, 11.56. Found: C, 69.73; H, 7.80; N, 11.51.

[6] Acknowledgments. We wish to thank Mr. J. L. OCCOLOWITZ for the high resolution mass spectral data, Mr. T. K. ELZEY for the ^{1}H-NMR spectra, Mr. G. M. MACIAK for microanalyses and Mr. R. J. ARMSTRONG for the isolation of the partially purified alkaloid.

Zusammenfassung. Auf Grund spektroskopischer Untersuchungen konnte die Struktur eines neuen Alkaloids aus *Vinca rosea* L. als Desacetoxy-VLB aufgeklärt werden.

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The Structure of a Polyacetylenic Diol Isolated from *Vernonia appendiculata* Less. (Compositae)

In continuation of our studies on the sesquiterpene lactones of the genus *Vernonia* (Compositae)[1], we were interested in the investigation of the species *Vernonia appendiculata* Less. originating from Madagascar.

Working up of the chloroform extract of the leaves in the usual manner[2] did not yield any sesquiterpene, but led to the isolation of a crystalline substance which is unstable on exposure to light. This new compound, deca-4,6,8-triyne-1,2-diol, $C_{10}H_{10}O_2$, $M^+ \cdot 162$, m.p. 113–116°, $[\alpha]_D$ -13° (c = 1, MeOH:$CHCl_3$ 2:8) has been assigned the structure *1* on the basis of the following evidence: I.R.

$$\underset{10}{CH_3}\text{–}\underset{9}{C}\equiv\underset{8}{C}\text{–}\underset{7}{C}\equiv\underset{6}{C}\text{–}\underset{5}{C}\equiv\underset{4}{C}\text{–}\underset{3}{CH_2}\underset{2}{CH(OH)}\underset{1}{CH_2OH}$$

1

(Nujol): 3300 cm^{-1} (OH) and 2240 cm^{-1} (C≡C)[3]. U.V. (EtOH): λ_{max} 214 (ε 16,000), 238 (ε 980), 252 (ε 630), 268 (ε 570), 285 (ε 570) and 305 nm (ε 630), characteristic for $-(C\equiv C)_3$-system[4]. M.S.: *m/e* 162 ($M^+ \cdot$), and 144 ($M^+ \cdot - H_2O$). ^{1}H N.M.R. ($CDCl_3$–Pyr., D_2O): 1.92 (3H, s.); $-CH_2-CH(OH)-$ 2.56 (2H, d., 6). The chemical shifts due to the vicinal glycol system $-CH(OH)-CH_2-OH$ are observed as two complex signals centered at 3.65 (2H) and 3.95 (1H) which are displaced in the spectrum of the amorphous diacetate, $C_{14}H_{14}O_4$, $[\alpha]_D$-67° (c = 1, $CHCl_3$) to 4.18 (1H, d.d., 12 and 6.0), 4.37 (1H), d.d., 12 and 4) and 5.14 (1H, q.d., 6.0 and 4) (ABX system)[5].

The formation of the diacetate was confirmed by the examination of the mass spectrum: *m/e* 246 ($M^+ \cdot$), 204 ($M^+ \cdot - 42$), 186 ($M^+ \cdot - 60$) and 126 ($M^+ \cdot - 60 \times 2$).

^{13}C N.M.R. (Pyridine-d_5): 10 carbons from pulsed[6] and off-resonance[7] decoupling measurements, ppm from TMS reference: 3.9 (q), 25.4 (t), 60.7 (s)[8], 61.2 (s)[8], 65.4 (s), 66.0 (t), 67.1 (s), 71.2 (d), 76.3 (s) 78.7 (s); assignments based on alcohol substituent effects[9] and alkyne data[9,10]: C_{10}, C_3, C_7, C_6, C_5, C_1, C_8, C_2, C_9, C_4, respectively.

Résumé. La structure d'un diol polyacétylénique isolé de *Vernonia appendiculata* Less. a été déterminée essentiellement par son étude en résonance magnétique nucléaire (H et ^{13}C).

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[11] Acknowledgments: We are indebted to Professor E. LEDERER for his general interest in this work and to Doctor B. C. DAS for valuable suggestions.

A Single-Chain Triple Helical Structure in Synthetic Polypeptides

The existence of a single-chain triple helical structure, in which a single polypeptide chain folds back on itself to form a stable collagen-like triple helix, was first suggested for the subunit of *Ascaris* collagen by MCBRIDE and HARRINGTON[1], and for the synthetic polypeptide (Pro-Pro-Gly)$_n$ by ENGEL[2]. On the basis of model building studies, RAMACHANDRAN, DOYLE and BLOUT[3] were able to give the details of such a structure for (Pro-Pro-Gly)$_n$. They suggested that the single-chain triple helix is a possible conformation for polypeptides of the type (X-Y-Gly)$_n$, where X and Y are any amino or imino acids.

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