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TRITERPENOIDS AND SOME OTHER CONSTITUENTS FROM *DICHROSTACHYS CINEREA*

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Key Word Index—*Dichrostachys cinerea*: Leguminosae; friedelin; friedelan-3β-ol; α-amyrin; β-amyrin; sitosterol; hentriacontanol and octacosanol.

Plant. Dichrostachys cinerea Linn. Voucher specimen No. 11673 deposited in the R.U.B.L. Herbarium. Scanty reports on phytochemical aspects are available in the literature.[1] *Present work.* The air dried and ground bark, heartwood and leaves were extracted with C_6H_6.

(a) *Constituents from bark.* The benzene extract was concentrated and chromatographed over Brockmann alumina to yield four compounds (**1**–**4**) Compound **1**. From petrol. (100%) fraction; colourless needles, m.p. 248–250° (C_6H_6–EtOAC, 1:1); analysed for $C_{30}H_{50}O$ ν_{max}^{KBr} 1750 (C=O) cm^{-1}. Above data indicated compound **1** to be friedelin and was further confirmed by reduction ($NaBH_4$) to friedelan-3β-ol, $C_{30}H_{52}O$, m.p. 276–278° (50% MeOH and $CHCl_3$), m.m.p., CO–TLC and IR. Compound **2**. From petrol. fraction; colourless needles, m.p. 278° (50% MeOH–$CHCl_3$); analysed for $C_{30}H_{52}O$ ν_{max}^{KBr} 3600 (OH) cm^{-1}. Acetate (Py–Ac_2O), fine needles, m.p. 290–291° (MeOH). These data indicated compound **2** to be friedelan-3β-ol which was further confirmed (CO–TLC, IR and m.m.p.). Compound **3**. From petrol. C_6H_6 (4:1) fraction; white crystals, m.p. 182–183° (MeOH); analysed for $C_{30}H_{50}O$ ν_{max}^{KBr} 3350 cm^{-1}. M^+ 426. Acetate (Py–Ac_2O), colourless needles, m.p. 212–214° (50% MeOH–$CHCl_3$). These data suggested compound **3** to be α-amyrin and was confirmed (m.m.p., CO–TLC and IR) with an authentic sample of α-amyrin. Compound **4**. From light petrol. C_6H_6 (3:2) fraction; colourless flakes, m.p. 144–146° (Acetone); ν_{max}^{KBr} 3450 (OH), cm^{-1}. Acetate, m.p. 141° (MeOH–$CHCl_3$), benzoate, 148–150°. From above compound **4** was found to be sitosterol which was confirmed (CO–TLC, IR and m.m.p.).

(b) *Constituents from heartwood.* The C_6H_6 extract was concentrated and chromatographed over deactivated alumina and afforded compounds **5** and **6**. Compound **5**. From petrol. fraction; white granules, m.p. 83–84° (Acetone). ν_{max}^{KBr} 3350 (OH), 1060, 735, 725 cm^{-1}; M^+ 410. Acetate, m.p. 65–66°; iodide, m.p. 63°. From above data compound **5** was octacosanol. Compound **6**. From petrol. C_6H_6 (4:1) fraction; colourless needles, m.p. 137°, ν_{max}^{KBr} 3450 (OH), cm^{-1}; acetate, m.p. 129°. From above data compound **6** was sitosterol.

(c) *Constituents from leaves.* The C_6H_6 extract was concn and chromatographed over Brockmann alumina to afford compounds **7**–**9**. Compound **7**. From petrol. C_6H_6 (4:1) fraction; white crystals, m.p. 85° (acetone); analysed for $C_{31}H_{64}O$, ν_{max}^{KBr} 3450 (OH), 1060, 730 and 720 $(CH_2)_n$, cm^{-1}; M^+ 452. Acetate, m.p. 70°, iodide, m.p. 66° and was confirmed

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as hentriacontanol. Compound **8**. From petrol. C_6H_6 (1:4) fractions; white crystals, m.p. 193° (MeOH); ν_{max}^{KBr} 3450 (OH), cm^{-1}; M^+ 426. Acetate, m.p. 228–230° (50% MeOH–$CHCl_3$). From above data compound **8** appeared to be β-amyrin and further confirmed (CO-TLC, IR and m.m.p.) with an authentic specimen of β-amyrin. Compound **9**. From benzene (100%) fraction; colourless flakes, m.p. 146°. ν_{max}^{KBr} 3400 (OH), cm^{-1}. Acetate, 139–140°. From above data compound **9** was found to be sitosterol.

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11-METHOXYDIABOLINE IN *STRYCHNOS MALACOCLADOS*

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In screening African *Strychnos* species,[1] we found that extracts of the bark of *Strychnos malacoclados* C. H. Wright (collected by Prof. F. Sandberg at Abidjan, Ivory Coast, and identified by Dr. A. J. M. Leeuwenberg) gave clonic and tonic convulsions. The original dry EtOH–1% HOAc extract of the bark was, after basification, extracted with Et_2O and $CHCl_3$. GLC showed one main peak, and TLC one main spot [R_f-value 0·87 relative to strychnine in EtOAc-*iso* PrOH-25% NH_3 (45:35:10)]. By column chromatography the main alkaloid was obtained and identified as 11-methoxydiaboline (**1**) by spectra, compared with an authentic sample. A small amount of a new minor alkaloid (m.p. 148–152) was also obtained which from UV and MS (384, 204) appeared to be a dihydroderivative of (**1**). 11-Methoxydiaboline has been found previously in the South American species *Strychnos romeu-belenii* Krukoff and Barneby[2] and the African species *Strychnos henningsii* Gilg.[3]

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[3] SPITELLER-FRIEDMANN, M. and SPITELLER, G. (1968) *Ann. Chem.* **712**, 179.