ISTE 19055. *Source.* Western part of Turkey (İzmir).[1] *Previous work.* On the leaves[2] and on the roots[3] of *S. olusatrum.*

Present work. The roots of the plant was extracted with 96% EtOH, chromatographed on a silica gel column. n-*Pentacosane.* $C_{25}H_{52}$, m.p. 53°, [α] ±0° (Found: C, 85·40; H, 14·53%). TLC and IR spectra comparison. *Sitosterol.* $C_{29}H_{50}O$, m.p. 137°, [α] −35° (Found: C, 83·82; H, 12·80%) m.m.p., TLC and IR spectra comparison. *Ginnon.* $C_{29}H_{58}O$, m.p. 75°, [α] ±0° (Found: C, 82·09; H, 13·47%) m.m.p., TLC and IR spectra comparison.

Unknown triterpenic compound. $C_{34}H_{56}O_7$, m.p. 304–307° (Found: C, 71·2; H, 9·30%). Mass peak *m/e* 576. IR (3400, 2900, 1450, 1370, 1150, 1060, 1020, 890, 840, 790, 740 and 690 cm^{-1}); NMR, three methyl groups were at 0·8, 0·9 and 1·1 ppm (each, 3H doublet), other peaks at 3·1, 3·3, 3·8, 4·8 and 5·3 ppm.

After acetylation a triacetyl derivative was obtained, $C_{40}H_{62}O_{10}$ (Found: C, 69·2; H, 8·52%) m.p. 159–160°. IR spectrum of the acetyl derivative showed no hydroxyl group. Epoxy groups were found to be present, upon hydrolysis of the unknown compound and its acetyl derivative new alcohol groups were formed. The structure of this compound is still under investigation. Mannose glucose and sucrose (PC and IR) were also isolated.

Alkaloidal fraction. 1 kg dried roots yielded 800 mg crude alkaloidal mixture which showed various alkaloidal spots on TLC. The crude mixture was chromatographed on a neutral Al_2O_3 (activity III) column. $CHCl_3$ eluates yielded 27·9 mg of a white crystalline compound, m.p. 120–122°, IR spectrum 3400, 1740, 1600, 1450, 1370, 1050, 740 and 690 cm^{-1}. UV max at 236 nm log ε 4·00 (sh 280 nm). HCl derivative m.p. 127–129°, $AuCl_3$ derivative m.p. 187–190° (Found: C, 82·00; H, 12·60; N, 3·41%). Due to the minor amount of the compound no further work was done.

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VERBENACEAE

IRIDOIDS AND ECDYSONES FROM *VITEX* SPECIES*

H. RIMPLER

WE Pharmakognosie der Freien Universität Berlin, Berlin, Deutschland

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Key Word Index—*Vitex pseudo-negundo; Vitex rehmanni; Vitex sereti;* Verbenaceae; iridoids; ecdysones; agnuside; aucubin; ecdysterone.

Plant. Vitex pseudo-negundo (Hausskn.) Hand.-Mazz. *Source.* Afghanistan. *Previous work.* On other *Vitex* species.[1–4]

* Part II in the series "Iridoids and Ecdysones from Verbenaceae". For Part I see Ref. 2.

[1] E. WINDE and R. HÄNSEL, *Arch. Pharmaz.* **293**, 556 (1960).
[2] H. RIMPLER, *Arch. Pharmaz.* in press; and references cited therein.
[3] A. BANERJI, M. S. CHADHA and V. G. MALSHET, *Phytochem.* **8**, 511 (1969).
[4] M. GRESHOFF, *Mededeelingen uit 'sland Plantentuin* XXV, 155 (1898).

Leaf and stem (50 g): Isolation by standard procedures[2] gave agnuside (1 %) and aucubin (0·4 %), identified by comparison of the IR spectra with those of authentic substances and by co-chromatography [PC: *n*-BuOH–MeOH–H_2O (4:1:5, upper); isopentanol–HOAc–H_2O–*n*-hexane (3:3:3:1), upper. TLC: CH_2Cl_2–MeOH–H_2O (40:10:1) on silica gel]. Ecdysones could not be detected.

Plant. Vitex rehmanni Gürke. *Source.* South Africa.

Leaf and stem: Air dried plant material (200 g) was worked up using standard procedures[2] to give 200 mg aucubin (0·1 %) and a mixture of agnuside and ecdysterone. The mixture was separated by column chromatography on polyamide. Elution with H_2O afforded 1·9 g agnuside (1 %) and 10 mg ecdysterone (0·005 %). Ecdysterone was identified by comparison of IR and MS with those of an authentic sample. Identification of iridoids see above.

Plant. Vitex sereti De Wild. *Source.* Congo.

Leaf and stem (95 g): Agnuside (0·05 %), ecdysterone (0·02 %). Isolation and identification see above.

Voucher specimens: Institut für Pharmakognosie der Freien Universität Berlin.

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MONOCOTYLEDONAE

GRAMINEAE

HYDROXY-HENTRIACONTANEDIONES FROM *AVENA SATIVA*

P. J. DIERICKX and K. BUFFEL

Laboratory of Plant Physiology, Carnoy Institute, 3000 Leuven, Belgium

(*Received* 9 *March* 1972)

Key Word Index—*Avena sativa*; Gramineae; 5-, 6- and 7-hydroxy-*n*-hentriacontane-14,16-dione.

Plant. Avena sativa L. cv. Seger I de Svalöv; caryopses. *Source.* Allmänna Svenska Utsädes A.-B., Svalöv, Sweden. *Previous work.* The 25-[1,2] and the 8- and 9-[3–5] isomers were cited from other cereals.

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