m.p. 101–102°, $[\alpha]_D$ +271° (*C*, 0·88, $CHCl_3$), IR (KBr) 3400 (OH), 1750 (acetate) and 1650 (enone) cm^{-1}, NMR ($CDCl_3$) 60 MHz gave signals at τ 8·99 (*s*, 3 H), 8·92 (*s*, 3 H), 8·68 (*d*, 3 H, J = 6·5 Hz), 8·00 (*d*, 3 H, J = 1 Hz), 8·12 (*s*, 3H, acetate), 7·72 (*s*, 1 H), 7·65 (*s*, 1 H) 4·60 (*m*, 1 H) 4·08–4·20 (3H) and an exchangeable proton at 7·32. On the basis of these data and biogenetic consideration, the alcohol was assigned structure (II). While this work was in progress Dr. R. S. Kapil drew our attention to the structure of vomifoliol, an alcohol from *Rauwolfia vomitoria*[5] and suggested that the *Croton* alcohol and vomifoliol could be identical. Direct comparison of the authentic samples (m.p., m.m.p., IR, UV and NMR) established their identity. Benzene extract of EtOH extractive (chromatographed, Al_2O_3) gave *ursolic acid* (m.p., m.m.p., IR and TLC of the acid and methyl ester acetate).

Plant. Buxus wallichiana Baill (Syn. *B. semipervireus* L.). Buxaceae. *Occurrence.* Western and Central Himalayas. *Source.* Dalhousie, H.P., India. *Previous work.* On basic fraction.[6]

Leaves and stem. Petroleum soluble fraction of EtOH extractive (chromatographed, Al_2O_3) gave *hentriacontanol* (m.p., m.m.p,, IR and TLC of the alcohol and acetate). *β-Amyrin* (m.p., m.m.p. $[\alpha]_D$; IR and TLC of the alcohol, acetate and benzoate). *Betulinic acid* (m.p., $[\alpha]_D$; IR and TLC of the acid and methyl ester).

Plant. Urginea indica Kunth, Liliaceae. *Occurrence.* Western Himalayas. *Source.* Almora, U.P., India. *Previous work.* Bulbs.[7] *Biological activity.* Anticancer.[8]

Bulbs. Petrol soluble fraction of EtOH extractive (chromatographed, Al_2O_3) gave *hetriacontanol, sitosterol* and *octacosanoic acid.*

Acknowledgement—We are grateful to Professor J. L. Pousset for a generous sample of vomifoliol.

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LYTHRACEAE

3,4,3′-TRI-*O*-METHYLELLAGIC ACID FROM *LAGERSTROEMIA INDICA*

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Key Word Index—*Lagerstroemia indica*; Lythraceae; sitosterol; 3,4,3′-tri-*O*-methylellagic acid.

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Plant. Lagerstroemia indica (Herbarium No. 3699). *Occurrence.* Throughout Pakistan. *Uses.* Medicinal.[1] *Previous work.* Alkaloids reported from flowers.[2]

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Roots. Alcoholic extract of the ground root was further extracted with $CHCl_3$. This extract (I) was chromatographed on a column of neutral alumina, whereas the insoluble portion was redissolved in EtOH (II).

Sitosterol. $C_{29}H_{50}O$ (identified by m.p., m.m.p., analyses and IR of the sterol and its acetate), from the alumina column of the $CHCl_3$ extract (I).

3,4,3'-*Tri*-O-*methylellagic acid.* $C_{17}H_{12}O_8$ (identified by m.p., analysis, UV, IR and MS), from the subsequent fraction of the alumina column.

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PIPERACEAE

CONSTITUENTS OF *PIPER METHYSTICUM*

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Key Word Index—*Piper methysticum*; Piperaceae; yangonin; methysticin; kawain.

Plant. Piper methysticum, Forst., *Use. Medicinal.*[1] *Previous work.* On roots.[2–6]

Roots. Extracted with light petroleum (b.p. 60–80°), benzene, $CHCl_3$ and MeOH. *Petrol extract.* The extract upon concentration and cooling deposited yellow solid which was found to be a mixture of at least two components (TLC). $CHCl_3$ solution of the crude solid was chromatographed over silica gel. Elution with benzene–$CHCl_3$ (9:1) yielded *yangonin* $C_{15}H_{14}O_4$ (M^+ 258), m.p. 152–54° (lit.[7] m.p. 153–154°. Found: C, 69·71; H, 5·84, $C_{15}H_{14}O_4$; required: C, 69·76; H, 5·42%). Characteristic NMR bands at 3·90 δ

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