(Nujol) 3430, 1560, 1225, 1180, 1135; 1070, 1010, 770, 690 cm^{-1}. From the above facts compound VI appeared to be tectol and this was confirmed (co-TLC, IR and m.m.p.).

Compound VII. From light petrol.–benzene (2:3), colourless prisms, m.p. 84–85° (MeOH); (Found: C, 62·70; H, 5·45. Calc. for $C_{21}H_{22}O_8$: C, 62·68; H, 5·51%); ν_{max} (Nujol) 3200–3500, 1610, 1260, 1240, 1040, 940, 815, 750 cm^{-1}. These data suggested that compound VII was paulownin methanolate which was confirmed (co-TLC, IR and m.m.p.).

Compound VIII. From light petrol.–benzene (2:3), colourless needles, m.p. 104–105° (50% benzene and light petrol.); $C_{20}H_{18}O_7$; ν_{max} (Nujol) 3300 (br), 1610, 1260, 1240, 1040, 940, 815, 750 cm^{-1}. These data indicated that compound VIII was paulownin this was confirmed with an authentic specimen (co-TLC, IR and m.m.p.).

Compound IX. From benzene (100%), colourless flakes, m.p. 136–137° (MeOH); $C_{29}H_{50}O$; ν_{max} (Nujol) 3400 (OH) cm^{-1}; acetate (pyridine–Ac_2O), colourless needles, m.p. 126–127° (50% MeOH and $CHCl_3$). From the above data, compound IX was sitosterol.

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TRITERPENOIDS OF *BUXUS PAPILLOSA*

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Key Word Index—*Buxus papillosa*; Buxaceae; betulin; lupeol.

Plant. Buxus papillosa C.K. Schn. *Uses.* None. *Previous work.* Several alkaloids[1] and unidentified steroids[2] have been isolated from the leaves and stems of the plant.

Present work. Leaves and stems of the plant have been examined. Extraction: The shade dried whole plant (4 kg) was extd with 95% EtOH (30 l.) at room temp. The concentrated extract was macerated with 5% HOAc and kept at 2° for 2 days and filtered. The residue was macerated with $CHCl_3$ and treated with charcoal to remove chlorophyll. The solution on concentration deposited lightly coloured crystalline mass which crystallized from MeOH, but showed the presence of small amounts of an impurity on TLC which was removed by column chromatography over alumina (50 g, B.D.H.) in $CHCl_3$. The product obtained crystallized from EtOH to give needles, $C_{30}H_{50}O$, m.p. 215°, $[\alpha]_D$ +27·0° (*c* 5·0, $CHCl_3$) (Found: C, 84·51; H, 11·79 Calc. for $C_{30}H_{50}O$; C, 84·44, H, 11·91%). IR (Nujol) ν 3390,

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3012, 2941, 1640, 1075 and 830 cm^{-1}. *Acetate.* $C_{32}H_{52}O_2$ needles from acetone, m.p. 218, $[\alpha]_D$ +47·3° (*c* 2·0, $CHCl_3$). *Benzoate.* $C_{37}H_{54}O_2$, prisms from acetone, m.p. 273°, *c* $[\alpha]_D$ +60·5° (*c* 4·0, $CHCl_3$). The identity of the compound as lupeol was confirmed by m.m.p., IR and MS of the acetate. The $CHCl_3$ solution, after the removal of lupeol, was concentrated to a small volume and chromatographed on alumina to give a compound which crystallized from EtOH to give needles, $C_{30}H_{50}O_2$, m.p. 248–250° (Found: C, 81·37; H, 11·39. Cal. for $C_{30}H_{50}O_2$; C, 81·39; H, 11·38%). IR (Nujol) ν 3450, 1665, 1625 and 1057 cm^{-1}. Acetate (di): $C_{34}H_{54}O_4$, prisms from EtOH, m.p. 223°, which had superimposable IR, NMR and MS with that of an authentic sample of betulin diacetate.

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ARYLPROPANOIDS FROM *LICARIA PUCHURY-MAJOR**

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Key Word Index—*Licaria puchury-major*; Lauraceae; 3,4-methylenedioxycinnamaldehyde; 3,4-methylenedioxycinnamyl alcohol; safrol; eugenol; syringic aldehyde.

Plant. Licaria puchury-major (Mart.) Kosterm. (Lauraceae), trivial name 'puxurí', occurrence Amazonia. The seeds are used as carminative and stomachic.[2] *Previous work.* Composition of the essential oils extracted from the seeds[3] (safrol 36·0%, eugenol 11·4%, eucalyptol 5·4%, terpene alcohols 10%, lauric acid 8·9%),[4] the leaves (safrol 21·7%, eugenol 1·7%, eucalyptol 47·6%, α-terpineol 11·7%)[5] and the branch wood (safrol 20·1%, eugenol 61·0%, eucalyptol 10·8%, α-terpineol 6·8%).[5]

* Part XXIII in the series "The Chemistry of Brazilian Lauraceae". For Part XXII see Ref. 1.

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