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ANGIOSPERMAE DICOTYLEDONAE

CELASTRACEAE

HYDROCARBONS AND TERPENOIDS FROM THE BARK OF *LOPHOPETALUM RIGIDUM*

M. SAINSBURY and B. WEBB

School of Chemistry and Chemical Engineering, University of Bath, Claverton Down, Bath, Somerset

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Plant. Lophopetalum rigidum Ridley, indigenous to Sarawak. *Studies on sister species. L. toxicum*,[1] *L. wightianum*.[2]

Pulverized dry bark (950 g) was extracted first with carefully purified 60–80 petrol.—extract *A*, then with MeOH—extract *B*.

Extract A. On evaporation gave a yellow-green gum (16·5 g) which separated into five fractions by chromatography on SiO_2 eluting with petrol.–$CHCl_3$ and $CHCl_3$–MeOH mixtures. (1) (10% $CHCl_3$–petrol.)—white crystalline solid m.p. 82–83° from EtOAc. R_f 0·79 (SiO_2, 5% $CHCl_3$–C_6H_6). IR shows saturated ester; MS $m/e \sim 900$ (M^+). Mother-liquor on evaporation, afforded a sweet smelling brown oil GLC–MS analysis of which shows the presence of the *n*-alkanes C_{14} to C_{20} (confirmed by direct comparison with a synthetic mixture). (2) (30% $CHCl_3$–petrol.)—friedelin (0·18%) m.p., m.m.p, 256–257° from C_6H_6 (lit.,[3] 261–264°) $[\alpha]_D^{20}$ −19° (C_6H_6). (Found: C, 84·4; H, 11·8. Calc. for $C_{30}H_{50}O$: C, 84·4; H, 11·8%.) (3) (80% $CHCl_3$–petrol.)—lupeol (0·54%) m.p., m.m.p. 206–208° from MeOH (lit.,[1] 212–213°). $[\alpha]_D^{20}$ +25·2° ($CHCl_3$). (Found: C, 84·3; H, 11·7. Calc. for $C_{30}H_{50}O$: C, 84·4; H, 11·8%.) Acetate m.p. 214° from HOAc–Ac_2O (lit.,[1] 211–212°). (Found: C, 82·0; H, 11·2. Calc. for $C_{32}H_{52}O_2$: C, 82·0; H., 11·2%.) (4) (100% $CHCl_3$)—sitosterol (0·003%) m.p., m.m.p. 135–137° from aq. MeOH (lit.,[4] 137–138°) $[\alpha]_D^{20}$ −38·3° ($CHCl_3$). (Found: C, 84·0; H, 12·3. Calc. for $C_{29}H_{50}O$: C, 84·0; H, 12·15%.) (5) (5–60% MeOH–$CHCl_3$)—betulin (0·013%) m.p., m.m.p. 250–253° from aq. MeOH (lit.,[1] 252°) $[\alpha]_D^{20}$ +20·3° ($CHCl_3$). (Found: C, 81·3; H, 11·4. Calc. for $C_{30}H_{50}O_2$: C, 81·4; H, 11·4%.) Diacetate m.p. 210–211° from HOAc–Ac_2O (lit.,[1] 220°). (Found: C, 77·3; H, 10·3. Calc. for $C_{34}H_{54}O_4$: C, 77·5; H, 10·3%.)

Extract B. On evaporation gave a red sticky solid (35 g) which, despite a very rigorous examination, resisted all attempts at purification. No evidedce of the polyol dulcitol was detected. This last observation is unusual since dulcitol is very common from members of the Celastraceae and is abundant in the sister species *L. toxicum*.[1]

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