

MYRTACEAE

CYCLOARTENOL, 24-METHYLENCYCLOARTANOL AND
SITOSTEROL FROM *EUCALYPTUS MICROCORYS*

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The heartwood of *Eucalyptus microcorys* is a rich source of cycloeucalenol.¹ Since we needed a pure sample of this alcohol,² a light petroleum extract of the heartwood was saponified and the unsaponifiable material chromatographed over neutral alumina, using benzene-Et₂O (4:1) as eluant. The first fractions gave mixtures of three alcohols, in which cycloeucalenol was the minor component (GLC). Pure cycloeucalenol was obtained in the middle fractions and sitosterol (m.p. 136–138°, $[\alpha]_D - 36.5^\circ$) in the last ones. Benzoylation of the mixtures obtained from the first fractions, and chromatography over silica gel impregnated with AgNO₃ (10%), using light petroleum–benzene (4:1) as eluant, resulted in the separation of the benzoates of the two new compounds. The first benzoate had m.p. 133–134°, $[\alpha]_D + 70^\circ$; the alcohol obtained by saponification had m.p. 100° (solvated), 115° (dried), $[\alpha]_D + 53^\circ$. The second benzoate had m.p. 156–157°, $[\alpha]_D + 67^\circ$, and the alcohol obtained from it m.p. 120–121°, $[\alpha]_D + 46.7^\circ$. Comparison of IR and NMR spectra with those of authentic samples showed that the first alcohol was cycloartenol (lit.³ m.p. 99° (solvated), 115° (dried), $[\alpha]_D + 54^\circ$; benzoate, m.p. 130°, $[\alpha]_D + 76^\circ$) and the second one 24-methylencycloartanol (lit.⁴ m.p. 121–122°, $[\alpha]_D + 43^\circ$; benzoate, m.p. 156–157°, $[\alpha]_D + 62^\circ$). The percentages with respect to the wood were found to be: cycloeucalenol, 0.68; cycloartenol, 0.02; 24-methylencycloartanol, 0.04; sitosterol 0.035.

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⁴ G. OHTA and M. SHIMIZU, *Chem. Pharm. Bull.* 6, 325 (1958).

Key Word Index—*Eucalyptus microcorys*; Myrtaceae; sterols; cycloartenol; 24-methylene cycloartanol.