

SHORT COMMUNICATION

CHEMICAL CONSTITUENTS OF
POLYPORUS DRYADEUS VAR. *BREVISPORUS* AND
FOMES ALLARDII

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Habitat: Wood rotting fungi, both.

Previous work: Nil.

Polyporus dryadeus extracted with petroleum ether, ether and alcohol in succession. Column chromatography and TLC were carried out on silica gel.

Petroleum Ether Extract

Isoergosterone: eluted by petroleum ether: C_6H_6 (4:1); $C_{28}H_{42}O$ (m.p., mxd. m.p., 101–103°, $[\alpha]_D - 24^\circ$, TLC and superimposable i.r. spectra¹). *Ergosterol*: eluted by C_6H_6 : $CHCl_3$ (1:1); $C_{28}H_{44}O$ (m.p., mxd. m.p., $[\alpha]_D$, TLC and superimposable i.r. spectra of alcohol and acetate).

Ether extract: Separated into acidic and neutral fractions with aq. alkali. *Cervisterol*: in very low yield by chromatography of neutral fraction, eluted by $CHCl_3$: CH_3OH (92:8); $C_{28}H_{46}O_3$, $[\alpha]_D - 79^\circ$ (pyridine), (m.p., mxd. m.p., 253–255°, TLC, superimposable i.r. spectra with sample synthesized from ergosterol according to the method of Barton and Alt²; diacetate $[\alpha]_D - 148^\circ$ ($CHCl_3$), m.p., mxd. m.p., 170–172°, TLC with synthetic diacetate). *Phthalic acid*: obtained by direct crystallization of acidic fraction (m.p., mxd. m.p., superimposable i.r. spectra). *Phthalic acid mono-methyl ester*: isolated from the mother liquors of phthalic acid by chromatography, eluted by $CHCl_3$: CH_3OH (98:2); (m.p. 80°, NMR spectrum and hydrolysis to phthalic acid). (Under identical conditions phthalic acid itself was recovered quantitatively from the column with $CHCl_3$: CH_3OH (94:6) as the eluting solvent; the possibility of the semi-ester being an artefact was thus eliminated.)

Alcohol extract: Divided into petroleum-ether and ether soluble and the rest.

From petroleum-ether-soluble fraction, ergosterol, identified as described above. Ether-soluble fraction was further separated into acidic and neutral fractions with aq. alkali. From chromatography of neutral fraction, an unidentified compound eluted by $CHCl_3$: CH_3OH (99:1), m.p. 118–119°, $[\alpha]_D + 3^\circ$ (pyridine). Found: C, 74.9 per cent; H, 12.3 per cent; important i.r. peaks: 3030 (s), 1678 (s), 1538 (s), 1475 (s), 1242 (m), 972 (w), 935 (w), 898 (m); OH group absent. LB colour, rose red to green, TNM test negative, sparingly soluble in common organic solvents, soluble in pyridine.

Fomes allardii extracted with petroleum ether and ether in succession.

¹ PRATAP SINGH and S. RANGASWAMI, *Indian J. Chem.* 3, 575 (1965).

² D. H. R. BARTON and G. H. ALT, *J. Chem. Soc.* 1356 (1954).

Petroleum-Ether Extract

Isoergosterone and *ergosterol*, both isolated and identified as described above.

Ether extract: Separated into acidic and neutral fractions with aq. alkali. *Cerevisterol*: isolated from neutral fraction in very low yield and identified as described above.

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