

FUNGI

DEUTEROMYCETES

SESQUITERPENOID METABOLITES OF *TRICHODERMA POLYSPORUM*
AND *T. SPORULOSUM*

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(Received 29 July 1971)

Previous work The sesquiterpene ester, trichodermin, has been isolated from *Trichoderma viride*¹ and the parent alcohol, trichodermol (roridin C) has been isolated from *Myrothecium roridum*.² *Source* *Trichoderma polysporum* CMI 40,624, *Trichoderma sporulosum* CMI 104,643

Cultivation On shake culture on a medium containing glucose (25 g), NH₄ tartrate (2 g), NH₄Cl (2 g), KH₂PO₄ (2 g), MgSO₄ 7H₂O (1 g), FeSO₄ 7H₂O (0.01 g) in 1 l distilled water adjusted to pH 6. The fermentation was grown for 13–14 days and assayed against *B. subtilis*. Biological activity was usually detected after 8 days. The broth was extracted with EtOAc and the metabolites separated by column chromatography. Alternatively, the crude total extract was hydrolysed by refluxing with 2 N NaOH and the product purified on silica gel TLC in 40% EtOAc–light petroleum to afford trichodermol.

Yield In both instances this was variable ranging from 0.9 g/l trichodermin to only a trace. The ratio of trichodermin to trichodermol was approximately 5:1. Extraction of the mycelium gave ergosterol and a small amount of trichodermol.

Identification M.p., [α]_D, IR, NMR and comparison with an authentic sample. The trichodermol was also converted to trichodermone.

Acknowledgement—We thank Dr W. B. Turner (ICI Pharmaceuticals Division) for a sample of trichodermin.

¹ W. O. GODTFREDSEN and S. VANGEDAL, *Acta Chem. Scand.* **19**, 1088 (1965).

² E. HARRI, W. LOEFFLER, H. P. SIGG, H. STAHELIN, CH. STOLL, CH. TAMM and D. WIESINGER, *Helv. Chim. Acta* **45**, 839 (1962).

Key Word Index—*Trichoderma polysporum*, *Trichoderma sporulosum*, Fungi, Deuteromycetes, sesquiterpenoid, trichodermol, trichodermin.