

RORIDIN A FROM *Dendrodochium toxicum*

K. P. Panozishvili and A. V. Borovkov

UDC 547.314

In a study of the phytotoxicity of a filtrate of the culture liquid of the soil microscopic fungus *Dendrodochium toxicum* Pidopl. et Bilai (strain BKMF-827) on the growth of the seeds of a number of higher plants, we have isolated the metabolite responsible for the main phytotoxicity of this filtrate.

The substance (average yield 4 mg/liter of filtrate) was isolated by the chromatographic separation of the total products of the metabolism of this fungus obtained by the method of Bilai et al. [1] on a column (0.8×100 cm) of silica gel (LS 5/40 μ). The compositions and biological activities of the fractions obtained were checked by thin-layer chromatography on "Silufol" plates with a fixed layer of silica gel. The solvent was diethyl ether and the substances were revealed chemically with a 5% ethanolic solution of phosphomolybdic acid and biologically by the inhibition of the growth of Wurzburg radishes.

The compound isolated formed colorless crystals with decomp. pt. 196-200°C (from benzene-hexane), $[\alpha]_D^{22} + 112.7^\circ$ (c 0.95; CHCl₃). IR spectrum, ν_{\max} (paraffin oil), cm⁻¹: 1745, 1708, 1633, 1595, 1238, 1185-70, 1084, 1040, 976, 820, 735. From its physicochemical properties and its IR spectrum, this substance was identical with roridin A, a sesquiterpenoid metabolite characteristic for a number of strains of fungi of the genus *Myrothecium* [2, 3]. This is the first time this compound has been found among the products of the metabolism of *D. toxicum*.

LITERATURE CITED

1. V. I. Bilai, D. D. Mikhailovlina, and F. N. Stepanov, Dokl. Akad. Nauk SSSR, No. 1, 144 (1962).
2. E. Harri, W. Loeffler, et al., Helv. Chim. Acta, 45, No. 3, 839 (1962).
3. B. Böhner and C. Tamm, Helv. Chim. Acta, 49, No. 8, 2527 (1966).

All-Union Scientific-Research Institute of Agricultural Microbiology. Translated from *Khimiya Prirodnykh Soedinenii*, No. 3, pp. 404-405, May-June, 1974. Original article submitted December 7, 1973.

© 1975 Plenum Publishing Corporation, 227 West 17th Street, New York, N.Y. 10011. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, microfilming, recording or otherwise, without written permission of the publisher. A copy of this article is available from the publisher for \$15.00.