

## VERRUCARIN A FROM *Dendrodochium toxicum*

K. Panozishvili, N. V. Zol'nikova,  
and A. V. Vorovkov

UDC 547.913.2:668.5

In the investigation of the phytotoxic metabolites of soil microorganisms, from the culture liquid of the micromycete *Dendrodochium toxicum* Pidopl et Bilai (strain BKMF 827) grown under the conditions recommended by Bilai et al. [1], by adsorption with activated carbon (OU"Б", 4 g/liter) we isolated the fraction (~80–120 mg/liter of culture fluid) responsible for the toxic action of this fungus on the growth and development of higher plants.

The preparative chromatographic separation of this fraction on a column of  $Al_2O_3$  (with  $CHCl_3$  as eluent) gave an individual compound with decomp.  $> 330^\circ C$  (~20% of the fraction taken).

The substance isolated had  $[\alpha]_D + 193^\circ$  (c 3.5;  $CHCl_3$ ); C 64, 41%, H 6.87%,  $\lambda_{max}^{EtOH}$  260 nm (log  $\epsilon$  4.31);  $\nu_{max}$  (paraffin oil),  $cm^{-1}$ : 3557–3570, 1717, 1636, 1592, 1213, 1196, 1180, 1160, 1128, 1110, 1090, 1057, 1029, and from its physicochemical properties and its IR and UV spectra it was identified as verrucarin A, a cytotoxic sesquiterpenoid metabolite of a number of strains of *Myrothecium verrucaria* and *M. roridum* [2].

### LITERATURE CITED

1. V. I. Bilai, A. A. Mikhailovna, and F. N. Stepanov, Dokl. Akad. Nauk SSSR, **144**, No. 1, 105 (1962).
2. E. Harri, W. Loeffler, et al., Helv. Chim. Acta, **45**, 839 (1962).

---

All-Union Scientific-Research Institute of Agricultural Microbiology. Translated from *Khimiya Prirodykh Soedinenii*, No. 2, p. 245, March-April, 1972. Original article submitted December 7, 1971.

© 1974 Consultants Bureau, a division of 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.