Phytochemistry, 1975, Vol. 14, p. 2506. Pergamon Press. Printed in England.

DROSOPHILIN, A METHYL ETHER FROM MYCENA MEGASPORA

GIJSBERTUS W. VAN EIJK

Centraalbureau voor Schimmelcultures, P.O. Box 273, Baarn, The Netherlands

(Received 25 April 1975)

Key Word Index—Mycena megaspora; Basidiomycetes; Agaricales; fungi; drosophilin A methyl ether; 1,4-dimethoxy-2,3,5,6-tetrachlorobenzene.

Plant. Mycena megaspora Kauffman = Mycena permixta (Britzelm) Sacc. CBS 363·50. Previous work. Drosophilin A (4-methoxy-2,3,5,6-tetrachlorophenol) from Psathyrella subatrata (Batsch ex Fr.) Gill. = Drosophila subatrata (Batsch ex Fr.) Quél[1]. Drosophilin A O-methyl ether from Fomes fastuosus (Lév.) Cooke[2] and from Phellinus robinae (Murrill) A. Ames = Fomes robinae (Murrill) Sacc. et D. Sacc.[3, 4].

Present work. The presence of long white crystalline needles was observed in 6–10 months old cultures of Mycena megaspora grown on malt agar slants. About 1 mg of crystals was collected and purified by recrystallisation from acetone: mp $162-163^{\circ}$. The compound in EtOH showed aromatic absorptions in UV: λ_{max} 209, 225sh, 236sh 286 and 294 nm. The MS revealed molecular ion peaks characteristic for a substance with 4 Cl atoms: MW found; $273 \cdot 91529$. Calc. for $C_8H_6Cl_4O_2$: $273 \cdot 91219$ for ^{35}Cl . Frag-

mentation pattern identical with that of drosophilin A O-methyl ether [5]. The identity of the two compounds was confirmed by comparison of the natural sample (mmp, UV, IR [4]) with the synthetic one, prepared by methylation of tetrachlorohydroquinone with MeI and NaOMe in MeOH according to the method described [6] for the preparation of catenarin-6-methyl ether.

Acknowledgements—The author thanks Mr. H. J. Roeymans for his technical assistance and Mr. C. Versluys, Analytical Laboratory, State University of Utrecht, for measuring the MS.

REFERENCES

- 1. Anchel, M. (1952) J. Am. Chem. Soc. 74, 2943.
- Singh, P. and Rangaswami, S. (1966) Tetrahedron Letters 1229.
- 3. Butruille, D. and Dominguez, X. A. (1972) Tetrahedron Letters 211.
- Dominguez, X. A., Butruille, D., Gomez Parra, F. and Reyes, C. (1972) Anales Quim. 68, 917.
- Butruille, D., Dominguez, X. A. and Teller, G. (1973) Org. Mass Spectrometry 7, 119.
- Anslow, W. K. and Raistrick, H. (1940) Biochem. J. 34, 1124.

Phytochemistry, 1975, Vol. 14, pp. 2506-2507. Pergamon Press. Printed in England.

SULPHATE ESTERS OF CAFFEYL- AND p-COUMARYLGLUCOSE IN FERNS

GILLIAN COOPER-DRIVER and T. SWAIN

A.R.C. Biochemical Laboratory, Royal Botanic Gardens, Kew, England

(Received 25 April 1975)

Key Word Index—Adiantum spp.; Adiantaceae; Pteridium aquilinum; Dennstaedtiaceae; sulphate esters of caffeyl- and p-coumarylglucose.

Plants and sources. Adiantum species (listed below) from the living or herbarium collections of the Royal Botanic Gardens, Kew, and Pteridium aquilinum L. (Kuhn) from 17 locations throughout the world. Voucher specimens are held in the Herbarium at Kew. Previous work. Many ferns, including Adiantum species and P. aquilinum, have been shown to contain hydroxycinnamic acids [1,2] and related flavonoid compounds [1-5]. Plant part examined. Fronds (pin-

nae) from both fresh and herbarium material were examined. However, both compounds described were actually isolated from freshly harvested fronds. *Present work*. The fronds were extracted with 80% MeOH (*ca* 10 ml/g) and the concentrated extracts examined by 2-dimensional PC in *n*-BuOH-HOAc-H₂O (6:1:2) and 15% HOAc.

In 10 of the 58 species of Adiantum examined (A. brasiliense Raddi, A. chiliense Klf., A. concinnum H.B.Willd, A. jordani K., A. lucidum (Cav.)