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FUNGUS PIGMENTS XVII*

THE SYNTHESIS OF PHLEBIARUBRONE

Jarl Gripenberg

Department of Chemistry, Institute of Technology,

Helsingfors, Finland

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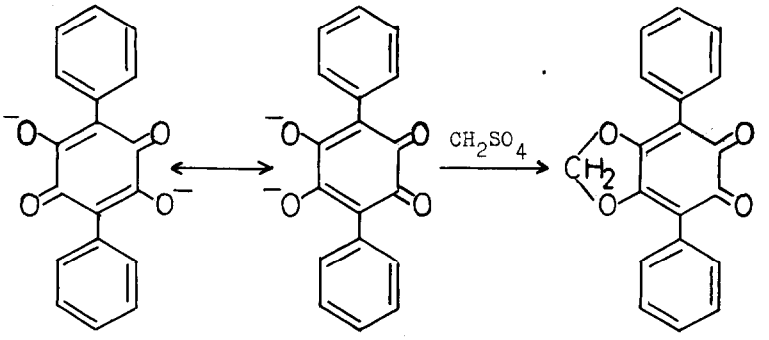
SOME years ago McMorris and Anchel (1) reported the isolation of a pigment, called phlebiarubrone, from the culture of the fungus Phlebia strigozonata. Based on chemical reactions and physical properties the structure II was proposed for phlebiarubrone.



I II

It has now been possible to verify this structure by a synthesis of phlebiarubrone, carried out in the following way.

The dried potassium salt of polyporic acid (I) (2) was

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suspended in acetone and stirred at room temperature with an excess of methylene sulphate (3) and sodium hydrogen carbonate. After 5 days the solution was filtered and evaporated under vacuum. The residue was dissolved in chloroform and chromatographed on silica gel. The dark red, relatively fast moving zone was eluted. Ethanol was added and part of the solvent was evaporated in a stream of carbon dioxide, giving phlebiarubrone in a yield of 85 percent. The m.p. 245-248° was not depressed when mixed with an authentic sample (m.p. 248-250°), kindly supplied by Dr. Anchel.

Likewise its U.V.- and I.R.-spectra, as well as its behaviour in thin layer chromatography on both silca gel and aluminium oxide in several different solvent systems were indistinguishable from those of authentic phlebiarubrone.

REFERENCES

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2. C.Stahlschmidt, Ann. 187 (1877) 177
3. W.Baker, J.Chem.Soc. 1931 1765