Isolation of Isophthalic acid from Candida *tropicalis*

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(Received 8th December 1979)

Isophathlic acid is known to be present in roots and rhizome of some plants[1]. We are for the first time reporting its isolation from a fungus Candida tropicalis, a yeast pathogenic fungus from the form family cryptococcaceae.

Experimental

Candida *tropicalis* Culture CBS 94 was obtained from Central Bureau Voor Schimmel Cultures Yeast Division, Baarn, (Holland) and was grown in Sabourand's glucose broth. A slant of the culture was introduced and grown at 37°C in a shaking water bath (Karl-Kolb 80 OSC/min). After maximum growth of the fungus, the cells were separated by centrifugation and washed twice with sterilized distilled water. The washings were also added to the cultured broth free of cells. The cell-free cultured broth was concentrated in vacuo at 25°.

The concentrated broth was extracted successively with benzene, chloroform and ethyl acetate. The aqueous layer was then treated with ethanol which yielded white precipitates. The ethanol soluble fraction was further concentrated under reduced pressure. A crystalline compound was separated out from this fraction on keeping over night in refrigerator in a very small quantity. This was separated and recrystallized from methanol: water (8:2). The purity of the compound was checked on HPLC, Jasco model Familic-100 using RP. 8, and silica packing materials in a range of solvent systems. The compound was indentified to be isophthalic acid by following physico-chemical methods; positive test for carboxylic acid, melting point 343-345° (liter. 345°C), thin-layer chromatography on silica-gel PF_{254} (merck precoated) using chloroform: methanol (4:6, $R_f = 0.66$) and benzene: methanol (1:1, $R_f = 0.74$). IR, UV, NMR and Mass spectroscopic[2-4] studies were performed and found to be in agreement with the already reported literature data.

The yield of isopthalic acid is 7 mg/liter.

NMR 7.55 δ (M), 8.2 δ (M); IR 3080, 1680, 1580, 1075, 900, 795; Mass 166 (M^+), 149, 148, 122, 104 Base, 76, 65, 51.

Acknowledgement

Authors are grateful to the Director, Central Bureau Voor Schimmel Culture (Yeast Division) Baarn, Holland, for the generous gift of the culture, Dr. Atta-ur-Rahman for helpful discussion and Pakistan Science Foundation for financial assistance (Project PSF-Chem S.U. KU Chem. 89).

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