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KEY WORD: *Aspergillus terreus* / ITACONIC ACID

USA KRI-AKSORN : OPTIMAL CONDITIONS FOR ITACONIC ACID PRODUCTION
BY *Aspergillus terreus* I 10, THESIS ADVISOR : ASSO. PROF, KANNIKA
CHANTARASA-ARD, 149 pp. ISBN 974-634-946-5

The optimal conditions for itaconic acid production by *A. terreus* I 10 were as followed; the inoculum was prepared by cultivating $5-10 \times 10^7$ spores in 50 ml. precultivation medium with 15 g. of 2 mm. diameter glass beads for 36 hr., 66 g/l sucrose as carbon source, 1.75 g/l ammonium sulfate as nitrogen source, 300:4 C:N ratio, 4.5 initial pH and 30°C cultivation temperature.

Refined-cane sugar could be used as carbon source instead of purified sucrose without decreasing in the yield. Glass bubble column was more suitable for itaconic acid production than 5L-jar fermentor, and the optimal conditions for glass bubble column were 2% (v/v) inoculum size and 2.5 vvm aeration rate.

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