Thesis Tile Investigation of Single Cell Protein Production in Air-lift Fermenter

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ABSTRACT

Batch and continuous cultivations were used to investigate the single cell protein (SCP) production by *Cephalosporium eichhorniae* 152 in an air-lift reactor. The fungus was grown in an 8 liters air-lift fermenter. The culture medium was consisted of cassava as a sole-carbon source, $(NH_4)_2SO_4$ as a nitrogen source and KH_2PO_4 as a buffering agent. The pH of the medium was adjusted to 3.8 and was controlled during fermentation by using an automatic pH-controller via 0.5 N NaOH. In batch fermentation, 1% of cassava gave the highest yield of 0.4. The optimum condition for continuous fermentation was 1% cassava in feed medium at a dilution rate of 0.05 h^{-1} (0.396 l/h) where 0.35 was the final yield. The productivity of continuous culture was found to be higher than that of the batch culture (0.135 g/l.h versus 0.04 g/l.h).