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## ABSTRACT

In this study a process is developed for the production of yeast extract which was extracted from baker's yeast (*Saccharomyces cerevisiae*) by using molasses as a raw material for the growth of the yeast biomass. For this purpose molasses was used as a substrate as a carbon source, urea as a nitrogen source and phosphoric acid as a phosphorous source for the mass culturing of Yeast biomass (*Saccharomyces cerevisiae*) in 7.5L glass vessel stirred fermenter at 30°C. These parameter were temperature, pH and molasses quality. The effect of pH and temperature on the culturing on Baker's yeast was studied and best growth was observed at 30°C and pH 4.5. Fermented broth containing yeast cell was than centrifuged to get pellet of biomass. After this the cells of yeast biomass were ruptured by optimizing numbers of different technique and in the end one was selected which was most feasible as for as finance is concern in order to haul out the yeast extract from the yeast biomass. Than in the end yeast extract was obtained and checked by performing some qualitative tests including protein test, amino acid profiling, total solid content measurement, comparison growth with other different available yeast extract, in order to ensure the quality of the furnished product and all test were found to be positive. In the end economical cost of the process was calculated which was found 50% less as compare to the market available yeast extract price.