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OPTIMIZATION OF CULTURE CONDITIONS FOR THE PRODUCTION OF BACTERIAL CELLULOSE BY *ACETOBACTER OBOEDIENS* JH232

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A bacterial strain producing an extracellular polysaccharide cellulose was isolated from tea and identified as *Acetobacter oboediens* by the 16S rDNA sequence analysis. The optimum fermentation condition for the production of cellulose from *Acetobacter oboediens* JH232 was determined by shaking flask culture method. Higher cellulose production was observed when a corn steep liquer/glucose was used as culture medium compose to the conventional yeast extract/peptone/glucose. The production of cellulose was maximal when 1.5% glucose, 1% CSL(corn steep liquor) as a nitrogen source, 0.115% acetic acid, 0.27% K_2HPO_4, 0.05% $MgSO_4$ were used. The optimum reaction condition was observed at 30℃, pH 5.5 and 200rpm. Now, we are trying to produce the cellulose in a jar fermentor bored on the above conditions.