

3 - 63 Exploration of Fermentation Parameters and Repeatability for Producing Citric Acid by Mmutant H4002

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We chose the seventh batch fermentation experiment as an object to analyse the mutant strain H4002 fermentation characters. Some fermentation parameters were measured and the results were showed as follow.

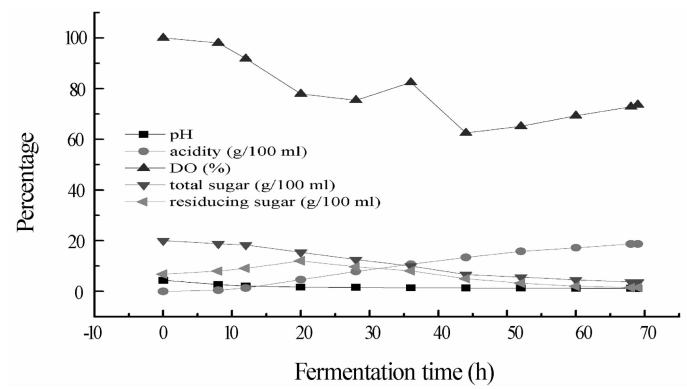


Fig. 1 The fermentation parameters of mutant H4002 of seventh batch fermentation experiment.

This paper had the purpose of increasing the amounts of corn starch, so as to increase the final citric acid concentration. Through the following Table 1, it was known that the mutant strain had high repeatability for producing citric acid, when total sugar concentration in the fermentation medium was 18~20 g/100 mL and fermentation period was for 67 h, the final citric acid concentration in the fermentation medium can be stable in the 18~19 g /100 mL, this experiment data all proved that the mutant strain H4002 had the very good fermentation stability for producing citric acid.

Table 1 Repeated test of mutant strain

Repeat tests	Initial sugar concentration(g/100 mL)	Fermentation period(h)	Citric acid concentration(g/100 mL)
1	20.4±0.1	67	18.3
2	16.96±0.05	59	17.3
3	20±0.08	67	19.2
4	18.5±0.07	67	18.2

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