

人工神经网络方法在红曲杨梅果酒发酵工艺优化中的应用

Application of artificial neural network on the fermentation technology of monascus waxberry wine optimization

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中文摘要:

将人工神经网络技术与传统正交试验方法相结合, 提出一种新的试验数据分析和处理方法, 利用神经网络特有的自学习能力, 可以充分挖掘正交试验数据信息, 并通过仿真、评估和优化, 获得了红曲杨梅果酒发酵的最佳工艺: 发酵温度18℃、糖汁比4:6、酵母加量15%、红曲加量2.1%。将该优化工艺应用于实际生产中, 取得了较好的效果。

英文摘要:

Artificial Neural Network (ANN) combined with traditional orthogonal design was put forward as a new method of analyzing and processing test data. The orthogonal test data can be used by applying the self-learning ability of the artificial neural network. With the help of artificial neural network, which simulates, evaluates and optimizes, the best fermentation technology of Monascus Waxberry wine was discovered. Optimum conditions are as follows: fermentation temperature is 18℃, amount of yeast is 10%, amount of Monascus is 2.1% and proportion of glucose to juice is 4:6. The satisfactory results show that this new method is reasonable and practical.

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