

气调包装下双孢蘑菇呼吸特性 Respiration Characteristics of *Agaricus bisporus* under Modified Atmosphere Packaging

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关键词: 双孢蘑菇 薄膜气调包装 呼吸 模型

摘要: 研究了双孢蘑菇在2℃和20℃下, 不同薄膜包装中O<sub>2</sub>、CO<sub>2</sub>体积分数在蘑菇呼吸作用及薄膜渗透作用下的动态变化, 结果表明低温和气调条件能有效抑制其呼吸作用。采用Michaelis-Menten型酶动力学方程, 建立了2种温度下双孢蘑菇呼吸速率随O<sub>2</sub>、CO<sub>2</sub>体积分数变化的数学模型, 同时考察了不同包装薄膜厚度对呼吸模型参数的影响, 为气调包装参数的选择提供了理论基础。 The dynamic changes of the oxygen and carbon dioxide volume fraction of *Agaricus bisporus* which were packaged in three kinds of film with different thickness were studied at 2℃ and 20℃. The results indicated that low temperature and MAP could inhibit the respiration of mushroom. A respiration model, based on Michaelis-Menten type enzyme kinetics, was proposed for predicting respiration rates of *Agaricus bisporus* as a function of O<sub>2</sub> and CO<sub>2</sub> volume fraction at the storage temperature of 2℃ and 20℃, which is essential to the design of modified atmosphere package.

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