

论文

黄粉虫中甲壳素和壳聚糖的提取工艺研究

窦珍伟, 刘宝\*, 孟宪武, 于丽丽, 公绪春

山东大学化学与化工学院, 山东 济南 250061

摘要:

以微波干燥的黄粉虫为原料, 研究了索氏抽提法提取油脂、碱法脱除蛋白质、酸浸法去除灰分、次氯酸钠脱色和浓碱法脱乙酰基制备甲壳素和壳聚糖的工艺. 系统分析了不同工艺条件对甲壳素的残留蛋白质含量、灰分含量,壳聚糖的脱乙酰度、粘度的影响,得出制备甲壳素和壳聚糖的最佳工艺条件,以期为工业生产提供依据.

关键词: 黄粉虫 甲壳素 壳聚糖 提取工艺 红外光谱

Study on extraction technology of chitin and chitosan from Tenebrio molitor

DOU Zhen-wei, LIU Bao\*, MENG Xian-wu

School of Chemistry and Chemical Engineering, Shandong University, Jinan 250061, China

Abstract:

With the powder of microwave dried Tenebrio molitor as starting material, the extraction technology of chitin and chitosan was studied by adopting soxlet extraction method to extract oil, using the acid leaching method to remove ash, sodium hydroxide solution to remove protein, sodium hypochlorite to decolorize samples, and NaOH solution to deacetylate the product. The effects of different extraction conditions on residual protein content, ash content, degree of deacetylation and viscosity of chitin and chitosan were systematically analyzed. The optimum conditions were obtained.

Keywords: Tenebrio molitor chitin chitosan extraction conditions FT-IR spectra

收稿日期 2008-06-25 修回日期 1900-01-01 网络版发布日期 2008-10-16

DOI:

基金项目:

通讯作者: 刘宝

作者简介:

本刊中的类似文章

扩展功能

本文信息

Supporting info

PDF(449KB)

[HTML全文](OKB)

参考文献[PDF]

参考文献

服务与反馈

把本文推荐给朋友

加入我的书架

加入引用管理器

引用本文

Email Alert

文章反馈

浏览反馈信息

本文关键词相关文章

▶ 黄粉虫

▶ 甲壳素

▶ 壳聚糖

▶ 提取工艺

▶ 红外光谱

本文作者相关文章

▶ 窦珍伟

▶ 刘宝\*

▶ 孟宪武

▶ 于丽丽

▶ 公绪春