

عنوان مقاله:

Paper Persian Gulf shrimp waste optimization of chitosan extraction conditions

محل انتشار:

اولین کنفرانس بین المللی صمغ های بومی و کاربرد آن در صنعت غذا (سال: 1393)

تعداد صفحات اصل مقاله: 4

نویسندگان:

Marjan Nouri - *Bioprocessing and Biodetection Laboratory, Department of Food Science, Engineering and Technology, Faculty of Agricultural Engineering and Technology, Campus of Agriculture and Natural Resource, University of Tehran, Iran*

Faramarz Khodaiyan - *Bioprocessing and Biodetection Laboratory, Department of Food Science, Engineering and Technology, Faculty of Agricultural Engineering and Technology, Campus of Agriculture and Natural Resource, University of Tehran, Iran*

خلاصه مقاله:

The Persian Gulf shrimp is one of the most valuable and delicious seafood resources of Iran but the shrimp waste is a major environmental problem, to overcome it was proposed not only to solve industrial problems but also to change the biowaste to useful component. Chitosan is a cationic amino polysaccharide which is a partly deacetylated form chitin. It has been a big challenge for the scientists to find different procedures to extract edible chitosan. The present study is an attempt to investigate the improvement of the chemical and microwave extraction methods of chitosan by using mild conditions with high functionality and environment-friendly procedures which did not degrade the structure of chitosan. Through response surface methodology the chitin will be produced using different concentrations of reagent, temperature and time of reaction. The effect of the aforementioned experimental conditions on molecular weight and degree of acetylation of biopolymer chitosan will be explored too. The resulted showed that the microwave process has a considerable amount of attention because has a more advantages over that of using the alkaline way. It was observed that percent of degree of deacetylation (89.34%) and molecular weight (806931 Da) were achieved in microwave style at 50% NaOH solution, 700 W microwave power and and 20 S time

کلمات کلیدی:

Shrimp, Biopolymer, Chitosan, Extraction

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