عنوان مقاله:

Production and Evaluation of Physicochemical Characteristics of Cellulosic Film Incorporated Microencapsulated Linalool

محل انتشار:

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

تعداد صفحات اصل مقاله: 4

نویسندگان:

Farzaneh Ali Asgharzadeh

Javad Keramat

Sayed Amir Hossein Goli

Milad Fathi

خلاصه مقاله:

Food flavour plays an important role in consumer satisfaction and acceptance. Flavours are one of the expensive ingredients in any food formula and due to their delicate and a volatile feature, preserving them is often an important concern of food manufacturers. Encapsulation of flavours by natural hydrocolloids can protect them against evaporation, reaction, or migration in a food. Besides this active packaging protects bioactive compounds and causes their controlled release. In the present study Arabic gum used for linalool encapsulating and was added in the cellulose acetate food packaging to control retention and flavour release and the physicochemical characteristics of the film were investigated. Linalool was added to the film formulations either microencapsulated or non-microencapsulated. The concentration of linalool was varied from 5 to 15% w/w cellulose acetate. The results showed that by increasing encapsulated linalool in CA films, the solubility and pure water flux of the film enhanced and mechanical properties reduced while no significant effect on water content of the film. In CA film containing linalool (non-microencapsulated), during 30 days about 75% to 95% of linalool loss was observed while the loss of 20% to 40% was observed for encapsulated flavor. Film with %2.5 cellulose acetate containing %5 w/w encapsulated linalool had the best release during consumption and maximum shelf life. These results clearly identified that microencapsulation of linalool using Arabic gum is necessary and the porous film of cellulose acetate containing microencapsulated linalool can be used controlled release of this flavour compound.

کلمات کلیدی:

Arabic gum, Cellulose acetate, Encapsulation, Linalool