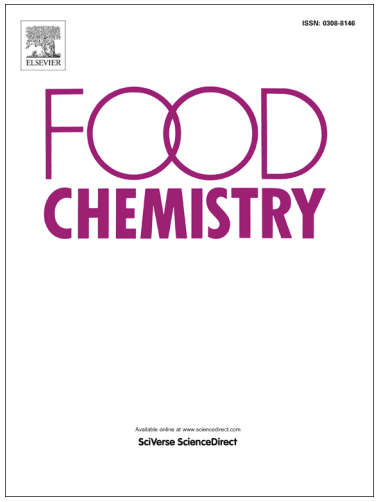

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Prosopis alba exudate gum as excipient for improving fish oil stability in alginate-chitosan beads

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Abstract

The aim of the present work was to employ an exudate gum obtained from a South American wild tree (*Prosopis alba*), as wall material component to enhance the oxidative stability of fish oil encapsulated in alginate-chitosan beads. For this purpose, beads were vacuum-dried and stored under controlled conditions. Oxidation products, fatty acid profiles and lipid health indices were measured during storage. Alginate-chitosan interactions and the effect of gum were manifested in the FT-IR spectra. The inclusion of the gum in the gelation media allowed decreasing the oxidative damage during storage in comparison to the free oil and alginate-chitosan beads. The gum also improved wall