عنوان مقاله:

Rheological and antioxidant properties of pectin/Zataria oil micro-emulsion

محل انتشار:

پنجمین کنگره بین المللی نانو و فناوری نانو (ICNN2014) (سال: 1393)

تعداد صفحات اصل مقاله: 6

نویسنده:

Gholam Reza Kavoosi - *Institute of Biotechnology, Shiraz University, Shiraz, Iran*

خلاصه مقاله:

The properties of pectin emulsion incorporated with Zataria multiflora essential oil was investigated.Zataria oil caused a significant decrease in density and pH and increase electric potential of the pectinemulsion. Zataria oil up to 4% leads a significant decrease in the conductivity and increase in the resistivityvalue of the pectin solution. Higher content of Zataria oil (4% to 8%) leads a significant increase in theconductivity and decrease in the resistivity of the solution. Zataria oil up to 4% caused a significant increasein the particle size and decrease in the zeta-potential of particles, while higher content of Zataria oil (4% to8%) decreased particle size and increased zeta potential. Zataria oil up to 4% leads a significant decrease inthe viscosity of the pectin solution; while higher content of Zataria oil (4% to 8%) increased the viscosity.Pectin solution exhibited very low antioxidant activity while, addition of Zataria oil into the pectin causedan increase in their antioxidant properties. Pectin solution incorporated with Zataria oil with antioxidantactivity is suitable for preservation fatty foods from oxidation by floating them on the surface of oily foods.Keywords: Pectin, essential oil, rheological behavior, antioxidant activity

کلمات کلیدی:

Pectin, essential oil, rheological behavior, antioxidant activity