

عنوان مقاله:

Comparison of Antioxidative Effect of Tea and Sesame Seed Oils Extracted by Different Methods

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خلاصه مقاله:

Tea and sesame seed oils extracted by different methods (including supercritical fluid extraction (SFE), at a pressure of ۳۵۰ atm, a temperature of ۶۰°C, a static extraction time of ۲۰ minutes, a dynamic extraction time of ۳۰ minutes and ۱۵۰ g kg⁻¹ of ethanol as a modifier). Solvent (SE) and ultrasound-assisted solvent extraction (UE)), as natural antioxidants, were evaluated during ۱۵ days storage by monitoring their effects on refined sunflower oil at ۶۰°C. The peroxide value (PV) and the thiobarbituric acid (TBA) value were used to assess the antioxidant activity of these extracted oils. The highest extraction yields were from SE and SFE, while UE gave a lower yield. Considering oil extraction yield and antioxidant activity, SE and SFE were the preferred methods. The results showed that tea seed oil had strong antioxidant activity, which was almost equal to sesame oil. Therefore, tea seed oil can be used in the same way as sesame seed oil in fat, oil and other food products as a natural antioxidant to suppress lipid oxidation.

کلمات کلیدی:

Antioxidant activity, Sesame seed oil, SFE, Solvent extraction, Sunflower oil

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