

عنوان مقاله:

Total Phenolic Contents and Antioxidant Activity of Pomegranate (*Punica granatum* L.) Peel Extracts

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خلاصه مقاله:

The phenolic compounds of pomegranate (*Punica granatum* L.) peel extracted by two methods (solvent and ultrasound-assisted) with five solvents (acetone, methanol, ethanol, water and ethyl acetate) were compared with supercritical fluid extraction (SFE). The total phenolic compounds were determined according to the Folin-Ciocalteu reagent using tannic acid as standard. The overall results showed that acetone with sonication produced the maximum amount of phenolic compounds from pomegranate peel extracts (PPE). Furthermore, the effect of the acetone extract of pomegranate peel (۰.۰۱۰-۰.۰۵۰ %) on the stability of soybean oil during heating at ۶۰۰C (oven test method) was determined by measuring peroxide and thiobarbitoric acid values. At a ۰.۰۵۰ % level of pomegranate peel extract, its antioxidant activity was greater than ۰.۰۲ % of the two synthetic antioxidants butylated hydroxyanisole (BHA) and butylated hydroxytoluene (BHT). The pomegranate peel extract possessed a relatively high antioxidant activity and might be considered as a rich source of natural antioxidant.

کلمات کلیدی:

SFE, Solvent extraction, Phenolic compounds, Pomegranate peel, Sonication

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