

Effect of solvent, time and temperature on the extraction of phenolic compounds and antioxidant capacity of peach (*Prunus persica* L.) fruit

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Publication date 2016/4/13

Journal Separation and Purification Technology

Volume162

Pages68-76

Publisher Elsevier

Description

The aim of the present study is to investigate the effects of solvent type (ethanol, methanol, acetone and water), acetone concentration (20–100%, v/v), solvent acidity (0–2 N), time (30–450 min) and temperature (25–70 °C) on the extraction of total phenolic compounds (TPC), total flavonoid compounds (TFC) and on the antioxidant capacity: 1,1-diphenyl-2-picrylhydrazyl radical-scavenging activity (DPPH-RSA) and ferric reducing power (FRP) of peach fruit (*Prunus persica* L.) using single factor experiments approach. All the studied extracting conditions showed significant effect ($p < 0.05$) on TPC, TFC, DPPH-RSA and FRP. On the basis of TPC and antioxidant activity parameters, the best extraction conditions were 60% acetone without acidification for 180 min at 25 °C. Based on these optimized conditions, high content of TPC, DPPH-RSA and FRP of peach extracts were obtained with values of 363 GAE/100 g, 48 ...

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