

Fatty acid and phytochemical compositions, and biological activities of guava seed oil**Adchara Prommaban, Niramon Utama-ang and Somdet Srichairatanakool**

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Remarkably, plant seeds have been found to contain compounds such as fatty acids, phytosterols, polyphenols, minerals and vitamins that have potential nutraceutical benefits. Guava seeds (*Psidium guajava*) are by-products of the production process of fruit-based products that are made in the beverage and juice industry; however, they hold the potential to be utilized for a variety of commercial purposes. This study was purposed to determine the compositions of guava seed oil (GSO) and biological effects. Guava seeds were extracted with hexane, analyzed for their chemical components using chromatographic methods and tested for free scavenging activities by using DPPH and DCFH-DA methods. Hexane extracts of GSO (6-10 % yield, w/w) were abundant in linoleic acid (65.95 % of total fatty acids), α -tocopherol (23 mg/kg) and β -tocotrienol (70.5 mg/kg), and presented 45.57 ± 0.97 μ g GAE/g of total phenolic content and possibly identified as 5-galloylquinic acid and epigallocatechin-3-gallate. GSO exerted radical-scavenging activity in a concentration-dependent manner. GSO is considered a promising functional food with a high proportion of linoleic acid and a notable vitamin E content that also displays antioxidant effect.

Biography

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