

ANTIOXIDANT ACTIVITY AND PHENOLIC COMPOUNDS OF COFFEE

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Coffee is one of the most popular beverages in the world because of its pleasant taste and aroma. The coffee plant belongs to the genus *Coffea* of the family Rubiaceae. The two most commonly grown species are *Coffea arabica* and *Coffea canephora* var. *robusta*. *Coffea arabica* is preferred by consumers because of its superior quality and delightful taste. Coffee is considered as a functional beverage with the potential health benefits due to the radical scavenging capabilities of phenolic components and coffee is known as one of the main dietary source of polyphenols. Coffee contains potential antioxidants such as caffeine, chlorogenic acid, hydroxycinnamic acids and Maillard reaction products. In addition to antioxidant activity of phenolic compounds of coffee, they also have a significant influence in determining coffee quality and play an important role in formation of coffee flavour. The phenolic compounds of coffee beans contribute to bitterness and astringency of the beverage. Moreover, these compounds have several health benefits and present hypoglycemic, antiviral, hepatoprotective and antispasmodic activities. The main phenolic compounds in coffee pulp are condensed tannins, while the main phenolic compounds in the seed are chlorogenic acids, a family of esters formed between hydroxycinnamic acids and quinic acid. Chlorogenic acids are determined at high concentrations in coffee seeds (up to 14%) and other phenolic compounds, such as tannins and anthocyanins are present in minor amounts. This paper discusses the antioxidant activity and phenolic compounds of coffee.

Key words: coffee, antioxidant activity, phenolic compounds

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