Evaluation of Total Antioxidant Activity of Different Floral Sources of Honeys Using Crosslinked Hydrogels

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Antioxidants in traditional food can protect organisms from free radicals and prevent the occurrence and development of cancer, cardiovascular and cerebrovascular diseases and diabetes mellitus. The accurate and quick evaluation of total antioxidant activity (TAC) in food samples remains a challenge. In this work, a zinc ion-crosslinked chitosan hydrogel was prepared to evaluate the TAC of honey from different floral sources. After optimization, locust honey, linden honey, jujube honey, wattle honey, citrus honey and Chinese milk vetch honey were used as experimental samples. The results indicate that Chinese milk vetch honey exhibits the highest TAC of the honeys from the studied floral sources.

Keywords: Electrochemistry; Total antioxidant activity; Hydrogel; Honey; Metal ions

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