Название публикации:
Method for Evaluation of the Antioxidant Properties of Preparations in Model System Based on Paprika Carotenoids

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Аннотация:
A method for the estimation of antioxidant properties of natural and synthetic preparations was developed based on inhibition of the autoxidation of paprika carotenoids. Carotenoids in the form of paprika extract were coated on a porous inert polysaccharide. Autoxidation of paprika carotenoids occurs more rapidly in such system than with direct methods for the determination of antioxidant inhibitory properties. It was shown that the developed method had good reproducibility. The behavior of paprika carotenoids, which was studied in systems with various types of starches, showed that the developed method could be used to evaluate the protective properties of food biopolymers in relation to lipid autoxidation. Moreover, the method is effective for comparison of the activity of both synthetic and natural antioxidants. The most important advantage of the method is that paprika carotenoids are almost identical to unsaturated fatty acids in their ability to interact with oxygen radicals of oxidants. Therefore, the results reflect the behavior of antioxidants in both real lipid-containing model systems and food products.

Ключевые слова:
K?ywords: spectrophotometry; antioxidants; paprika; carotenoids; essential oils and spices extracts