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BOOK OF ABSTRACTS

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Hotel Olympia SKY
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KNJIGA SAŽETAKA

3. Europska GREEN konferencija

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Effect of eucalyptol addition on the properties of chitosan-based edible films

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Abstract

Consumers of packaged foods nowadays are becoming more conscious of the need to reduce, if not completely prevent, the everyday usage of plastic materials. Plastic packaging materials are being replaced not only with environmentally friendly materials, but various formulations based on natural components, such as edible films or coatings, are increasingly being tested as their replacement. Edible films are a thin layer of material that provides a barrier to products against gases and water vapor, but they must also have good mechanical and organoleptic properties. Polysaccharides as a raw material for edible films are the most abundant in nature, and for edible films alginates, pectins and chitosan are most commonly used. Chitosan is a polysaccharide from which edible films are obtained by dissolving chitosan in various acids. Chitosan films are biodegradable and have smooth and shiny surfaces. Eucalyptol (also called cineole) is a monoterpene colorless liquid and because of its pleasant, spicy aroma and taste, eucalyptol is used in flavorings, fragrances, and cosmetics. This work investigated the possibility of preparing edible films made from chitosan, with the addition of different concentrations of eucalyptol and the plasticizer glycerol. Some physico-chemical and mechanical properties of the obtained films were tested.

Keywords: chitosan, edible films, eucalyptol, film properties

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