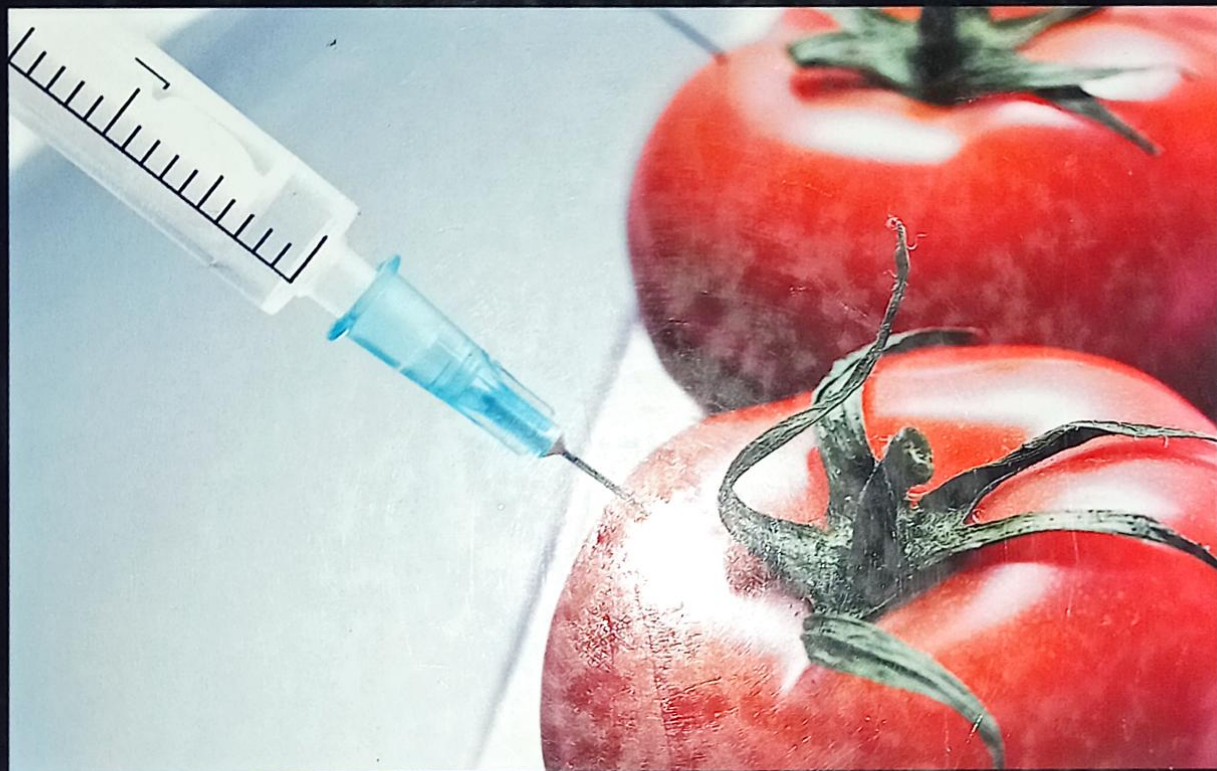


FOOD ENGINEERING: **Structure and Function**



Contributors:

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Food Engineering: Structure and Function

Food engineering is a multidisciplinary field of applied physical sciences which combines science, microbiology, and engineering education for food and related industries. Food engineering includes, but is not limited to, the application of agricultural engineering, mechanical engineering and chemical engineering principles to food materials. The text *Food Engineering: Structure and Function* presents a wide vision of food engineering, with an emphasis on topics vital to the food industry today. First chapter focuses on antioxidant, anticancer activity, and other health effects of a nutritional supplement (galaxy(r)). In second chapter, research and developments in the food packaging area have been conducted, aiming to eliminate residual O₂. Third chapter provides details of protein-based edible films and their properties, the production of protein-based edible films, the methods used for the formation of protein-based edible films, the improvement of properties of protein-based edible films and their potential applications. Fourth chapter focuses on characterization and quantitative growth description in milk and artisanal raw milk cheese production. Mycotoxin decontamination aspects in food, feed and renewables using fermentation processes have been proposed in fifth chapter. Sixth chapter provides details of rice starch films, and the formation and factors affecting rice starch film properties. Seventh chapter deals with botulinum toxin complex. The implication for food-borne diseases (salmonella and food poisoning among humans in R. Macedonia) has been outlined in eighth chapter. Possible risks in Caucasians by consumption of isoflavones extracts based have been discussed in ninth chapter. The aim of tenth chapter is to develop machine vision techniques based on image processing techniques for estimation the quality of orange and tomato fruits. Eleventh chapter focuses on pulsed electric fields for food processing technology. Twelfth chapter describes public health policies and functional property claims for food in Brazil. In thirteenth chapter, two different genetic fingerprinting techniques (karyotype analysis and mtDNA restriction analysis) have been presented for detailed genotyping of *T. delbrueckii* strains. Nucleic acid-based methods to identify, detect, and type pathogenic bacteria occurring in milk and dairy products have been introduced in last chapter.



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