

Abstract

Pasteurization is the thermal processing of a liquid or a food for the elimination of pathogenic bacteria thereby making the food safe for human consumption. It helps to reduce the transmission of different diseases by killing the pathogenic bacteria. The simple pasteurization causes deterioration of nutrients and is less energy efficient. The aim of this study is to reduce the stated problems by developing a simple and unique design of an ohmic heating system. Ohmic heat is one of the best method of food preservation by using electrical energy. It includes conversion of electrical energy into heat and food commodity acts as resistance to heat. Ohmic heat can be used particularly for the liquid food like juices and in beverages industry. In the current research project, ohmic heat equipment will be designed and optimized for pasteurization of orange juice. The treated juice will be analyzed for its physiochemical analysis such as total soluble solids, titratable acidity, pH, conductivity, viscosity, ascorbic acid and sensory analysis. The data obtained will be statistically analyzed.