

Title Ohmically Heated, Enhanced Expression of Juice from Apple and Potato Tissues
Author I. Praporscic, N.I. Lebovka, S. Ghnimi and E. Vorobiev
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Abstract

This paper describes the effect of ohmic heating on juice yield from potato and apple tissues. Two different types of experiments involving different treatment chambers were carried out: textural and conductivity study of cylindrical samples and juice yield tests of tissue slices. The investigations show how tissue disintegration degree and juice yield depend on the field intensity, temperature, treatment duration and type of plant tissue. The best juice extraction was observed when the plant tissue was treated electrically at a moderate temperature of 50 °C. It was explained by the combined effect, related to electroporation of cell membranes and thermal softening of tissue.