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Effect of ultrasound treatment during osmotic dehydration on bioactive compounds of cranberries

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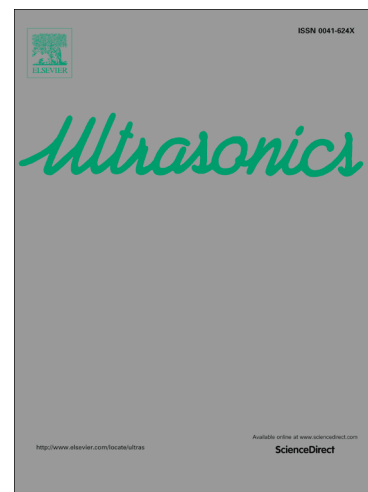
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Abstract

The aim of the study was to investigate the influence of ultrasound treatment applied in osmotic solution on bioactive compounds, such as vitamin C, polyphenols, anthocyanins and flavonoids content as well as antioxidant activity in cranberries var. *Vaccinium oxycoccus*. Ultrasound treatment was performed at the frequency of 21 kHz for 30 and 60 min in two osmotic solutions - 61.5% sucrose and 30% sucrose with an addition of 0.1% of steviol glycosides. Before the ultrasound treatment the material was subjected to cutting and/or blanching. The obtained results indicated that the influence of ultrasound waves on cranberries depends on a type of bioactive component. The ultrasound treated cranberries as well as the ones subjected to cutting and/or blanching enhanced by ultrasound were characterized mainly by a lower content of bioactive compounds.

Key words: cranberries, ultrasound, osmotic dehydration, bioactive compounds

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