Title	Peroxidation of membrane lipids in minimally processed cucumbers packaged under modified atmospheres
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Citation	Food Chemistry, Volume 100, Issue 3 , 2007, Pages 1011-1018
Keywords	Lipid peroxidation; Minimal processing; Cucumber; Modified atmospheres

Abstract

The effect of storage conditions and physical tissue damage on membrane peroxidation in minimally processed cucumber tissue was investigated. Lipid peroxidation in samples stored under modified atmospheric packaging (MAP) and in covered Petri dishes (non-MAP) were determined by the FOX2 and TBARS assays. The initial level of lipid hydroperoxides and TBARS were found as 1.44–2.00 and 0.11–0.20 nmol/g, respectively. The levels of lipid hydroperoxides increased by five- to sixfold in chilled non-MAP tissues over 10 days. MAP with higher levels of oxygen was generally more effective in reducing the generation of lipid hydroperoxides and TBARS. The effect of dipping treatments using solutions containing $CaCl_2$ and/or ascorbic acid on peroxidation were also investigated. Tissue hardness of MAP sealed samples increased for the first 3 days for all tissues but chilled tissues started to soften on the sixth day.