Title Chemical properties changes in pomegranate seeds packaged in polypropylene trays

Author A. Palma, M. Schirra, S. D'Aquino, S. La Malfa and G. Continella

Citation ISHS Acta Horticulturae 818:323-330. 2009.

Keyword Punica granatum L.; minimally processed; quality factor; modified atmosphere

Abstract

The chemical and organoleptic characteristics of minimally processed seeds of pomegranate 'Primosole' were evaluated after packaging in polypropylene trays (150 g each), sealing with a 40 µm thick polypropylene film and subsequent storage at 5°C for 10 days. Chemical analysis of centrifuged and filtered juice revealed no significant changes after 10 days of storage. Titrable acidity increased slightly (from 0.27% to 0.30%) while a little reduction occurred in total phenolic content, which decreased from 1,492 to 1,393 mg/l. Relevant changes were recorded in juice colour, with a significant increase in a* values, decreases in h° angle, while changes in L*, b* and chroma parameters were not significant. By the end of storage, pomegranate seeds did not exhibit visible symptoms of decay and no undesirable effect was recorded on quality traits such as the development of off-flavour and off-taste.