

Title Hydroxyl and superoxide radicals-scavenging capacity of apricot - influence of industrial processing

Authors M.I. Egea, M.A. Murcia, P. Sanchez-Bel, M. Valdenegro, F. Romojaro, M.C. Martinez-Madrid

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Abstract

The capacity of apricot var. 'Búlida', both fresh and industrially-processed (freezing and appertization), to scavenge two of the free radicals most common and harmful to living organisms, hydroxyl radical (OH•) and superoxide anion (O₂•-) radical, has been evaluated in this study. The results obtained were compared to the activity shown by different antioxidant additives commonly used in the food industry, BHA (E-320), BHT (E-321) and propylgalate (E-310). Finally, the evolution of the radical-scavenging capacity of processed apricots during 150 days of storage was determined. The apricots showed a high capacity to scavenge the tested radicals. The antioxidant activity of the apricots was, in both cases, higher than that recorded for the synthetic additive analysed. When fruits were processed by appertization, losses of antioxidant activity of 6% and 50% for OH• and O₂•- radicals, respectively, were recorded. The freezing did not cause significant changes in the capacity to scavenge OH• radical, but it slightly decreased the O₂•- scavenging. During the storage of frozen or canned fruits over 150 days, no significant changes in their antioxidant activity were observed.