

Stabilization of Mutton Tallow Olein by Natural Bioactive Quercetin

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Abstract

In order to stabilize tallow olein, Antioxidative activities quercetin was studied in tallow olein at 150 ° C at 0.004 %, 0.006 % ,0.008% ,0.01% ,0.02% and 0.04% concentrations, by measuring induction time. Rancimat apparatus was employed as a mean to evaluate the antioxidant activity and to determine the induction periods of the samples. Generally, a higher concentration of quercetin causes a higher antioxidative effect. Induction period increased with concentration of primary antioxidant, but not in proportion to increases in concentration. It was found that there was a good linear correlation between antioxidant effect and doses of quercetin added to tallow olein. The results showed that, in tallow olein, the antioxidant activity of the Quercetin is much more potent than α -tocopherol.