

عنوان مقاله:

Antioxidant properties of sodium acetate, sodium citrate and sodium lactate on lipid oxidation in rainbow trout ((*Onchorhynchus mykiss*) sticks during refrigerated storage (4°C

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نویسندگان:

S. Haghparast

H. Kashiri

B. Shabanpour

M. H. Pahlavani

خلاصه مقاله:

This study was carried out to investigate the rate of lipid oxidation in fresh rainbow trout (*Onchorhynchus mykiss*) and in the sticks treated by (۲.۵% w/v) sodium acetate (NaA), sodium citrate (NaC) and sodium lactate (NaL). The pH value, free fatty acid (FFA), thiobarbituric acid (TBA) and sensory evaluation (odor, flavor and color) were determined on ۰, ۳, ۶, ۹ and ۱۲ days of storage. The results showed that TBA and FFA in control were significantly higher than those in the other groups ($P < 0.05$). Sticks immersed in NaA indicated a significant difference in formation of free fatty acids in comparison with other sodium salt-treated samples on ۹ and ۱۲ days after storage. Sticks dipped in NaL had a maximum level of pH at the end of the storage, whereas samples treated by NaA achieved significantly the lowest value of pH, ۹ days after storage. Organoleptic assessments of the samples expressed more acceptability of sticks immersed in sodium salt solutions than the control after ۳ days of storage. These indicated that sodium salts, particularly sodium acetate, have antioxidant properties.

کلمات کلیدی:

Rainbow trout, Antioxidant, Sodium salt, Lipid oxidation, Refrigerated storage

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