Thiamine retention as a function of thermal processing conditions: Canned salmon Retención de Tiamina como función de las condiciones de proceso térmico en salmón en conserva

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The present work studied the effect of different treatments at high temperatures on the nutritional properties of thiamine retention and color measurement experimentally. Canned salmon (Salmo salar) was processed under different temperatures and time conditions (110°C for 135 minutes; 114°C for 89 minutes; 118°C for 69 minutes and 121°C for 62 minutes). Thiamine was determined by HPLC before and after the process. Color changes, due to processing conditions, were also measured utilizing a Hunter colorimeter. The canning was prepared in 300 x 407 cans and sterilized until Fo value reached 6 min. The nutritional value or index represented by the B1 vitamin or thiamine was affected by high temperature and time exposition. The lowest loss of thiamine of 19.2% was obtained in the canned salmon sterilized at 114°C for 89 minutes. The color in canned salmon was different from the raw material, with a severe loss of red color and a greater clarity of the meat.