Example of Abstract

**Effect of cooking temperatures in repetitive cooking-chilling cycles on resistant starch content and other quality characteristics in fish crackers**

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**Abstract**

This work describes the effect of different cooking temperatures in a repetitive cooking-chilling (RCC) process on resistant starch (RS) content in fish crackers, prepared from a ratio of 1:1 fish:sago starch formulation. In this work, three sets of 4 RCC cycles were performed on the fish crackers where each set was cooked at a fixed temperature of 100, 115 or 121°C respectively. The chilling temperature was fixed at 4°C in all cases. Subjecting the fish crackers to higher cooking temperatures for up to 4 cycles of RCC increased the RS content; although, some disadvantages on the quality characteristics of the crackers were observed. Despite cooking at higher temperatures in the RCC, more damages (cracked, burst and fragmented) to the shape of the fish cracker gels was observed during the first RCC cycle coupled with a softer texture and high moisture content. Furthermore, when the products were subjected to frying, their linear expansion decreased, the texture became harder and the color turned darker. This work demonstrated that the application of higher cooking temperatures up to 4 RCC cycles was able to enhance the RS content in the fish crackers, but was less able to attain a higher percentage of product’s perfect shape. On the contrary, fish crackers that were exposed to a lower cooking temperature contained lower RS but with a less damaged shape.

Keywords:Cooking, chilling, fish cracker, resistant starch, snack.