A quantitative method to measure and evaluate the peelability of shrimps (Pandalus borealis)

A novel, standardized method has been developed in order to provide a quantitative description of shrimp peelability. The peeling process was based on the measure of the strength of the shell-muscle attachment of the shrimp using a texture analyzer, and calculated into the peeling work. The self-consistent method, insensitive of the shrimp size, was proven valid for assessment of ice maturation of shrimps. The quantitative peeling efficiency (peeling work) and performance (degree of shell removal) showed that the decrease in peeling work correlated with the amount of satisfactory peeled shrimps, indicating an effective weakening of the shell-muscle attachment. The developed method provides the industry with a quantitative analysis for measurement of peeling efficiency and peeling performance of shrimps. It may be used for comparing different maturation conditions in relation to optimization of shrimps peeling.

General information
Publication status: Published
Organisations: National Food Institute, Research group for Food Production Engineering, University of Copenhagen, Royal Greenland A/S
Corresponding author: Gringer, N.
Contributors: Gringer, N., Dang, T. T., Orlien, V., Olsen, K., Bøknæs, N., Jessen, F.
Pages: 20-24
Publication date: 2018
Peer-reviewed: Yes

Publication information
Journal: LWT
Volume: 94
ISSN (Print): 0023-6438
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
Original language: English
Keywords: Ice maturation, Pandalus borealis, Peelability measurement, Texture analyzer
DOIs: 10.1016/j.lwt.2018.04.022
Source: Scopus
Source-ID: 85045564018
Research output: Contribution to journal › Journal article – Annual report year: 2018 › Research › peer-review