Nor Fazliyana Mohtar, J Aquac Res Development 2016, 7:6 (Suppl)
http://dx.doi.org/10.4172/2155-9546.C1.005

Potential use of gelatine from fishery by-products

Nor Fazliyana Mohtar
Universiti Malaysia Terengganu, Malaysia

Gelatine is one of the most popular biopolymers widely used in the food industries. It has been mainly derived from porcine skins and bovine bones. However, gelatine from marine sources has drawn extensive interest due to the requirements for Halal and Kosher ingredients in food product development and the rising concern of consumer about BSE in commercial mammalian gelatine products. Furthermore, the abundance of fishery by-products produced from *Keropok lekor* industry has created the opportunity to extract the gelatine from fish sources. Therefore, the extraction of gelatine from several fish species was conducted and compared to the commercial mammalian gelatines. Fish gelatine exhibited relatively lower properties compared to the commercial ones. Therefore, modifications through chemical and enzymatic cross-linkings were conducted to improve its functional properties. The uncross-linked and cross-linked gelatine gels demonstrated distinctive differences in the molecular weight distribution, microstructure, gel strength, and degree of cross-linkings. The current findings have successfully proved that the modified fish gelatines can be an alternative to replace the mammalian gelatines. These improved functional properties could also create a significant demand for fish gelatine in food applications, in meeting the global requirements for Halal and Kosher markets as well as alleviating the waste disposal problem from the processing of *Keropok lekor*.

Biography

Nor Fazliyana Mohtar has completed her PhD from the University of Auckland, New Zealand. She is currently a Lecturer at School of Fisheries and Aquaculture Sciences, Universiti Malaysia Terengganu. She has published widely and participated at many national and international conferences, and has been recognised with many awards and citations for her outstanding research. She was able to publish in top journals such as *Food Chemistry*, Food Hydrocolloids and Polymer Chemistry journals. Her research interests include fish processing, utilisation of fishery by-products, extraction of collagen and its modification through chemical and enzymatic cross-linkings, and the physical properties of food proteins. She has been appointed as the external examiner for peer-reviewed journals, PhD and Masters theses. She has held teaching positions at the University of Auckland and Universiti Malaysia Terengganu. She has also been leading high-level programmes, and actively involved in many different organisations within the community that include organisations where she has volunteered, served on the board or other leadership role and participated in as a Scientist. She is a member of New Zealand Institute of Food Science and Technology (NZIFST), International Food Technologist (IFT), New Zealand Institute of Chemistry (NZIC), and Malaysian Fisheries Society (MFS).

fazliyana@umt.edu.my

Notes: