

4th International Conference on

Fisheries & Aquaculture

November 28-30, 2016 San Antonio, USA

Effect of ice storage on the textural and rheological properties of proteins from freshwater fish: *Cyprinus carpio*

Cristelle Tiwo Tsapla¹ and Nayak B B²¹University of Dschang, Cameroon²Centrale Institute of Fishery Education, India

The properties of proteins from fresh fish common carp (*Cyprinus carpio*) meat and its suitability for the preparation of fish sausage have been evaluated. The protein solubility of fish meat in high ionic strength buffer was 77.16%. The dynamic visco-elastic behavior of fish meat in the temperature range of 25-90°C using controlled stress rheometer revealed ability to form strong gel network which was further confirmed by frequency sweep test. The gel strength and texture profile analysis (TPA) of fish sausage prepared from *Cyprinus carpio* revealed elastic properties. The ice storage stability of fish as judged by physical, chemical, microbiological and sensory parameters was found to be 15 days. Gel strength of ice stored fish reveals that decreasing trend at 0th day of prepared gel strength was 668.2 gm.cm and at the end of the 15th day ice storage fish mince prepared gel was 398.70 gm.cm.

Recent Publications

- Tiwo Tsapla Cristelle, Womeni Hilaire Macaire, Tchoumboungang François, Ndomou Serge, Linder Michel (2016). Effects of culinary treatments on the *in vitro* nutritional quality and the functional properties of freshwater fishes of Cameroon: *Clarias gariepinus*, *Heterotis niloticus*, *Cyprinus carpio* and *Oreochromis niloticus*. International Journal of Biotechnology and Food Science Vol.4(3):39-51
- Tiwo Tsapla Cristelle, Womeni Hilaire Macaire, Tchoumboungang François, Tenyang Noel and Linder Michel (2014). Effects of boiled fish ingestion on young male and female Wistar albino rat growth; *Silurus glanis*, *Heterotis niloticus*, *Cyprinus carpio* and *Oreochromis niloticus*. Spain J Nutr Food Sci.
- Tiwo Tsapla Cristelle, Womeni Hilaire Macaire, Tchoumboungang Francis, Tenyang Michel Noel & Linder (2013). Effects of culinary treatments on the nutritional quality and functional properties of freshwater fish from Cameroon: *Silurus glanis*, *Heterotis niloticus*, *Cyprinus carpio* and *Oreochromis niloticus*. Biosciences Proceedings Vol.19:107-111.

Biography

Cristelle Tiwo Tsapla is a Researcher in Department of Food Science and Biotechnology, Dschang University, Cameroon. She is specialized in Nutrition and Food Security. She was a Research Associate in Food Protein and Fishery Transformation. She has visited many research institutes in Asia such as CIFT, CIFE and College of Fishery in Mangalore, India. She is implicated in many publications and is now writing a chapter in a scientific book.

cristelle.tiwo@yahoo.fr

Notes: