

**EXTRACTION OF COLLAGEN FROM FISH WASTE AND  
DETERMINATION OF ITS PHYSICO-CHEMICAL  
CHARACTERISTICS**

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## APPROVAL SHEET

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## **ABSTRACT**

### **EXTRACTION OF COLLAGEN FROM FISH WASTE AND DETERMINATION OF ITS PHYSICO-CHEMICAL**

The primary aim of this study is to determine whether collagen can be extracted from catfish waste. Catfish waste became by-product from fish processing industry and utilization of these by-products to produce valuable collagen can give benefit to the entire world. From this study, collagens were successfully extracted from catfish waste. These studies also determine the chemical composition and physico-chemical characteristics. The yield, pH value, colour and odour of extracted also were determined. The percentage of yield shows that fish waste can be one of the collagen sources. The pH value shows same value as the previous study which is acidic (4.75). Colour and odour of extracted collagen approved the fish waste collagen can be applied in food without giving any effect and imparting any strong colour attribute to the food product. Differential Scanning Calorimetry (DSC) and viscosity measurement were used to determine the thermal stability of extracted collagen. From this study, catfish waste collagen shows good thermal stability as it denatured at high temperature which nearly to the mammalian collagen.