
EXPERIMENT 10 PREPARATION OF SHARK FIN RAYS

Structure

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10.1 INTRODUCTION

Fins collected from shark must be further processed to obtain fin rays. Rays can be produced in various forms such as individual strands, strands arranged in certain form or as fin with the skin removed. Method of processing can also vary but the rays are almost always finally dried. We'll follow a method of preparing individual strands.

Objectives

After performing this experiment, you will be able to:

- prepare dried fin rays from shark fin; and
- identify the characteristics of fin rays.

10.2 EXPERIMENT

10.2.1 Principle

Shark fins contain fleshy matter, cartilage and skin in addition to fin rays. The method involves first softening the dry fins by rehydration (absorption of water) followed by treatment with hot acid. The treatments result in softening of all components of the fins but without affecting the quality of the rays. The rays become loose and easy to collect. These are then washed free of other components and dried to preserve.

10.2.2 Requirements

- Dried shark fins
- Glacial acetic acid
- pH paper
- Stainless steel vessel, ladle
- Stove
- Balance
- Drier

10.2.3 Procedure

- 1) Take weight of dry fins.
- 2) Prepare a dilute solution acetic acid by mixing a small quantity of glacial acetic acid with water to a pH of 2.5. Check pH using pH paper.
- 3) Immerse fins in acid for a few days until they become soft.
- 4) Prepare a 10% acetic acid solution and heat to a temperature of 60°C.
- 5) Immerse the fins in hot acid for a period of about one hour until the fin rays become loose.
- 6) Rinse fins in water. Pick out the rays manually. (In case, the rays are not loose enough, a second treatment with hot acid may be given).
- 7) Wash the fin rays in freshwater repeatedly till free of acid and other impurities. Check if the wash water has attained a pH value of nearly 7 using a pH paper.
- 8) Drain and arrange the rays in small trays.
- 9) Dry in a tray drier at a temperature of about 50°C to moisture content of 5 – 8% (hard dried).
- 10) Take weight. Pack in polyethylene bag and seal.
- 11) Store at room temperature.

10.2.4 Observations

Weight of shark fin (x) =
Weight of fin rays (y) =
Yield = $(y/x) \times 100$ =%

Product characteristics :

Colour =

Hardness =

10.2.5 Results

The yield of fin rays from shark fin is %

The overall quality of the product is

10.3 PRECAUTIONS

- Fin rays must not be exposed to temperature above 60°C.
- During washing of fin rays take care to remove completely all other components of fins like skin, fleshy matter, etc.