

LABORATORY OF FOREST PRODUCTS CHEMISTRY

FACULTY OF FORESTRY UNMUL



STANDARD OPERATING PROCEDURE

Title: Maceration

Date:

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File:

1. OBJECTIVE

To provide instructions for performing maceration.

2. PRINCIPLES

Maceration is an extraction process using a technique of soaking the sample in a certain solvent at room temperature.

3. REQUIRED EQUIPMENT

Lab coat, safety glasses, clean cloth/tissue.

3. MATERIALS AND TOOLS

Materials/reagents	Tool
Plant samples in powder form	Maceration container bottle
Solvent (n-hexane, diethyl ether, chloroform, ethyl acetate, ethanol, methanol, water or mixtures thereof.	Shaker tool
	500 ml beaker
	500 ml measuring cup

4. PROCEDURE

4.1. SAMPLE PREPARATION

- 4.1.1 Air-dry or oven-dry the plant sample (leaves, stems, roots, bark, etc.) at 40°C.
- 4.1.2 After drying, the plant samples were ground using a blender.
- 4.1.3 Store the ground plant sample in a clip plastic bag for the next stage.

4.2. MACERATION PROCESS

- 4.2.1 Weigh approximately 50 grams of the plant sample (as needed) into the beaker.
- 4.2.2 Soak with 250 ml of solvent (enough to submerge the sample)
- 4.2.3 Seal tightly with aluminum foil and plastic wrap
- 4.2.4 Place on a shaker for 24 hours

4.4. NOTE

- 4.4.1 The volume of the sample in the beaker being shaken should be monitored to avoid spillage during agitation;
- 4.4.2 The volume of solvent used should be adjusted according to the weight of the plant sample being macerated, ensuring that the sample is fully submerged in the solvent.

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