



EXPERIMENT NO: 11

**Cinnamon bark: Cortex Cinnamomi**

**Latin name:** *Cinnamomum zeylanicum* Nees. (Ceylon Cinnamon) (Sri Lanka)  
*Cinnamomum cassia* Nees. (Chinese Cinnamon)

**Family:** Lauraceae



**Cinnamomum cassia**

- Perennial handsome evergreen large trees.
- The bark external surface: yellowish brown.
- The bark inner surface dark brown.
- Odor: aromatic.
- Taste: warm, sweet and aromatic.
- Origin: Sri Lanka & China.



**Cinnamon**  
**Cinamomum cassia**

CINNAMON.JPG

### Chemical constituents

C. zeylanicum constituents:

1. Cinnamon oil (volatile oil):
  - a. Cinnamic aldehyde 60-70%.
  - b. Eugenol.
2. Mucilage (mannitol )
3. Sugars
4. Starch.
5. Tannins (phlobatannin).

Cinnamon cassia has the same constituents except eugenol.  
Contains Cinnamic aldehyde 80%.

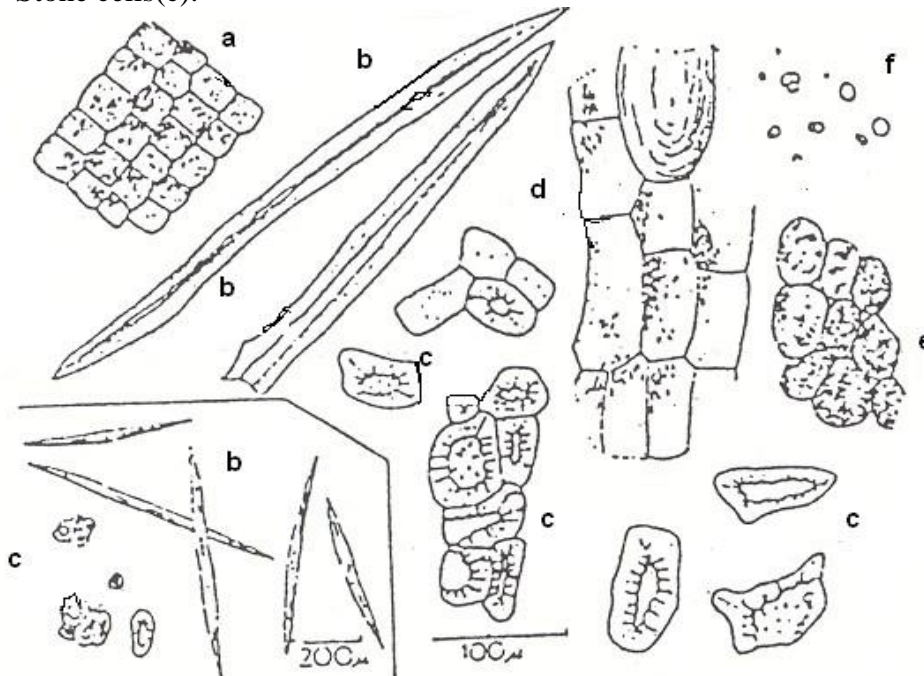
### Uses

1. Carminative.
2. Flavor.
3. Antiseptic.
4. Antidiarrhea.
5. Powerful germicide.

### Microscopical examination

#### **Key elements:**

1. Modularly ray tissue with calcium oxalate needles (a).
2. Fibers (b).
3. Stone cells(c).



- a) Cells of modularly ray tissue with calcium oxalate needles.
- b) Fibers & fiber fragments.
- c) Stone cells from primary bark.
- d) Cells from the cortical parenchyma with crystal needles and occluded excretory cell.
- e) Cells from cortical parenchyma.
- f) Starch grains.

### Homework:

- Q1- Why does Cinnamon bark gum cause tooth decay?
- Q2- Find other chemical constituents of Cinnamon bark.
- Q3- Find trade names for drugs containing Cinnamon bark.