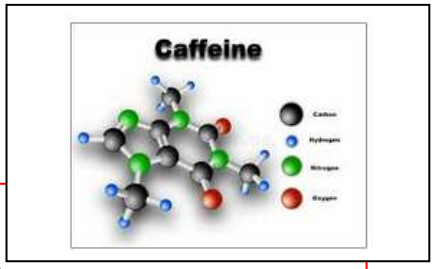
PROCEDURE



PART 1: EXTRACTION OF CAFFEINE:

- Measure out 100 ml of soda pop.
- Crush the sample with mortar and pestle and dissolve in 100 ml of water.
- Add 2 g of sodium carbonate and dissolve.
- Transfer the solution into a separatory funnel.
- In a hood, add 10 ml of methylene chloride.
- Using silicone put the lid and rotates.
- Mix until no more gas is evolved.
- Decant the organic layer into a 50 ml Erlenmeyer flask.
- Add 8 ml of methylene chloride to the aqueous layer, mix and add the organic layer to the first extract. Repeat again this extraction.
- Add 1 g of anhydrous Na2SO4.
- Wait 10 min.
- Weight a 50 ml erlenmeyer flask.

Part 2: PURIFICATION OF CAFFEINE:

- Transfer the extract into the preweighed flask
- Set up for simple distillation and drive off most f the solvent.
- Purify the caffeine by sublimation.

Part 3: TLC PROCEDURES:

- Cool the flask and reweight it to determine the amount of caffeine.
- Use a 250 ml beaker lined with a piece of filter paper covered with a watch glass.
- Prepare the developing chamber by obtaining a small amount of the development solvent
- Fill the chamber to a depth of about ¼ inch.
- Draw a line with a pencil on a tlc plate and mark off two intervals equally spaced on the line.
- In the hood add 5 ml of methylene chloride in the flask and dissolve the crystals.
- Spot the solution on the plate and dip a capillary tube in the solution. Allow, just a small part of the liquid on the plate.
- When the plate has been spotted, it's ready to be going on , control the level of the solvent must be checked by applying stains on the plate because they will dissolve on it inside the chamber
- When the solvent has risen to about 1 centimeter on the end of the slab, mark the position of the spots with a pencil (surrounding the spots).
- When the plate is dry, check the stains with a UV lamp and observe all the points formed, and surround them with a pencil

Part 4: TLC PROCEDURES:

- Make the melting point of the obtained caffeine and compare the value obtained with the original one.