

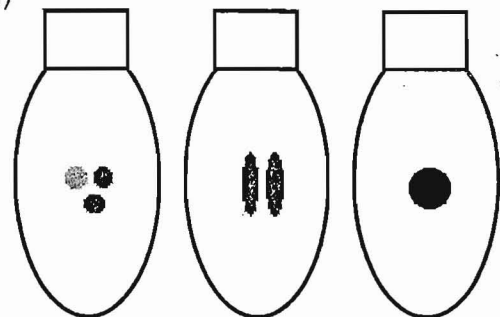
CHRISTMAS CHROMATOGRAPHY

Lab Directions

Materials: A variety of colors of water soluble markers including black (Overhead markers work great!)
Coffee filters or large filter papers to trace and cut out the Christmas bulbs
White pipe cleaners cut in half or smaller
Small cups or beakers (Dixie cup size would work well)
Yarn or string

Additional materials if using second method:

Sharpie markers in a variety of colors
Rubbing alcohol
Small pipettes or medicine droppers
Paper towel

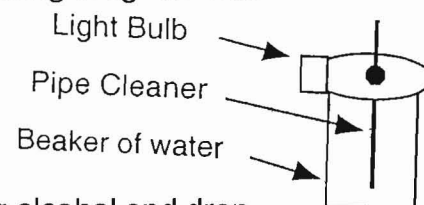


Method 1 Directions:

1. Using a marker, make a small circle in the center of the bulb area. Two or more markers may be used, but too many colors will cause the final product to be smeared.
2. Insert one end of a white pipe cleaner into the ink dot. Place the other end into a container of water. The filter paper should not touch the water.
3. Allow time for the water to travel through the filter paper and reach the edges.
4. Remove the pipe cleaner and place the light bulbs in an area where they can dry.
5. Once they are dry, tape the light bulbs to a piece of yarn to create a string of lights. Use them to decorate your room or hallway.

Method 2 Directions:

1. Put paper towel down on the surface you will be using to work.
2. Place the filter paper bulbs on top of the paper towel.
3. Make designs on the bulbs using the permanent Sharpie markers.
4. When finished, fill the medicine dropper or pipette with some rubbing alcohol and drop a few drops on the design.
5. Allow time for the bulbs to dry.
6. Once they are dry, tape the light bulbs to a piece of yarn to create a string of lights. Use to decorate your room or hallway.



*You may use the alcohol and permanent marker and follow Method 1.

*One could experiment with different types of wicks if wanting to look at variables as far as how long it takes for the liquid to travel up a given wick.

*We found it took a long time for the water and alcohol to travel up the pipe cleaner, so you may want to have your students do this activity at the end of the day.

*Filter paper proved to be sturdier and not fall in the cup. If the opening on the cup does not support the coffee filter bulbs, we found sometimes the bulbs would slip into the water.

