

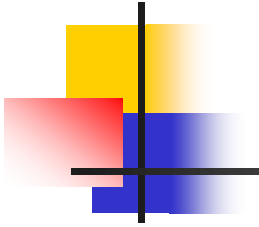


Thin Layer Chromatography

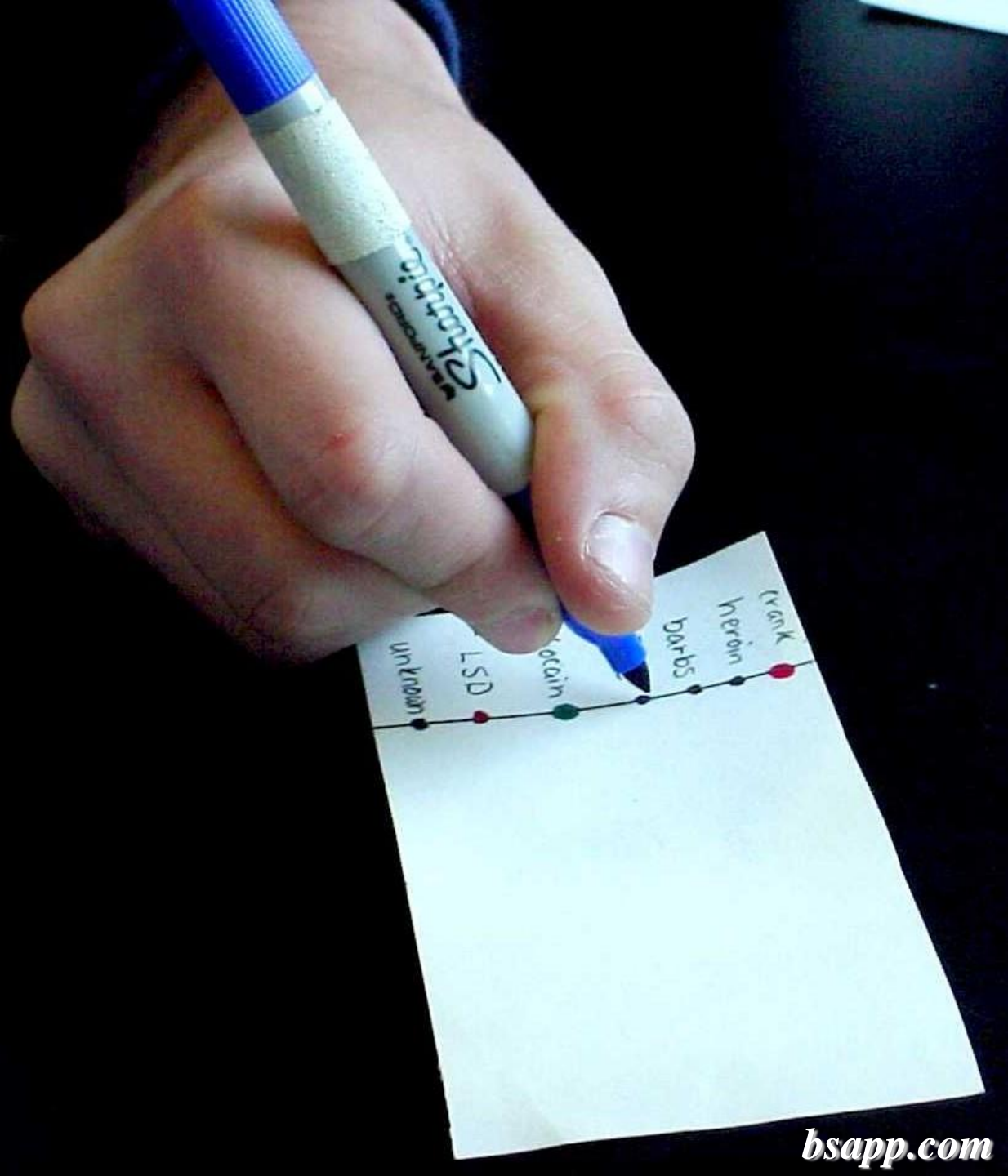


Preparing a Sample Space

- Cut a sheet of paper so it may hang free within the intended container
- Mark a sample line $\frac{1}{2}$ inch to an inch from the bottom



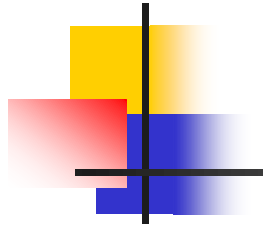
Place your
samples on
the sheets



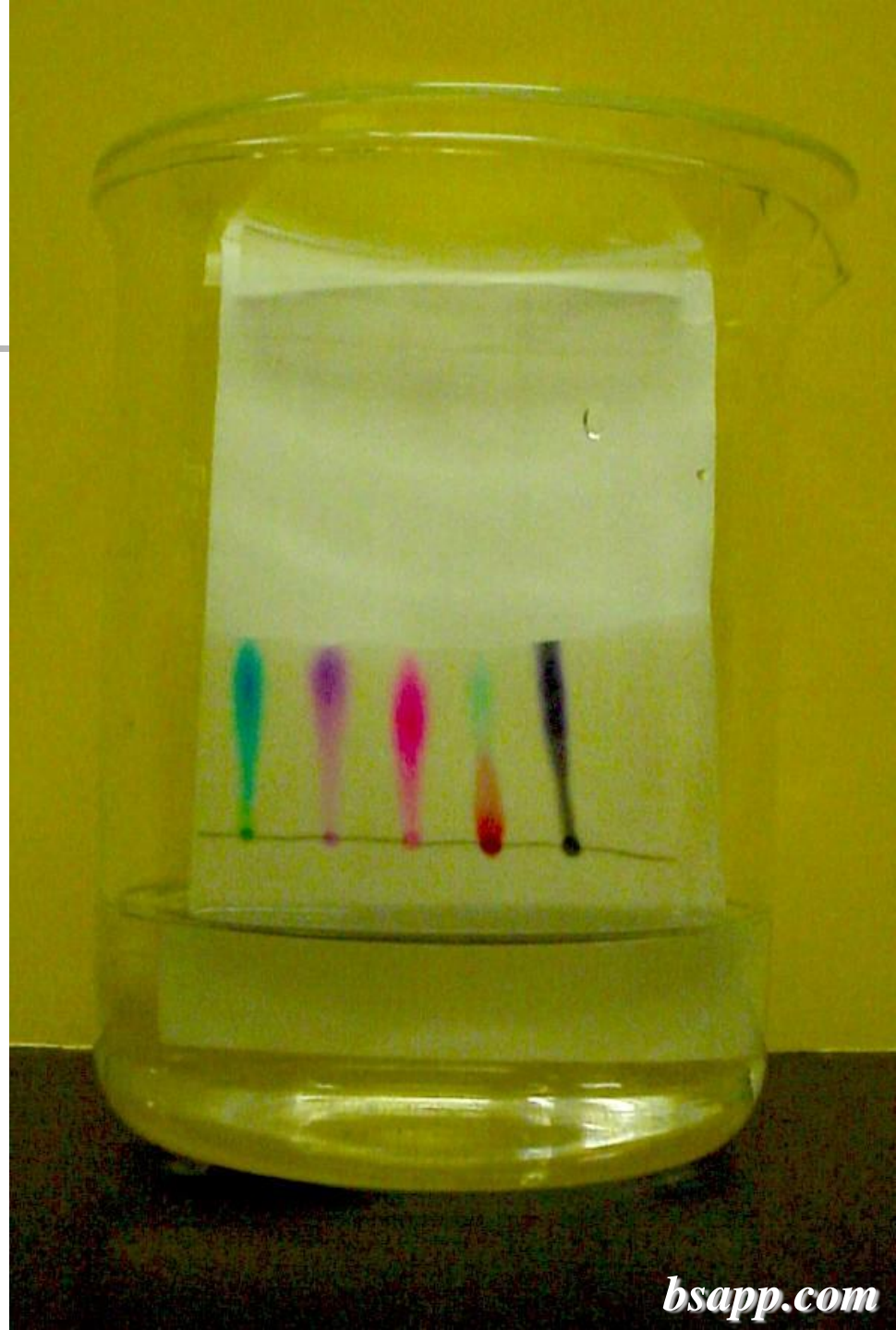


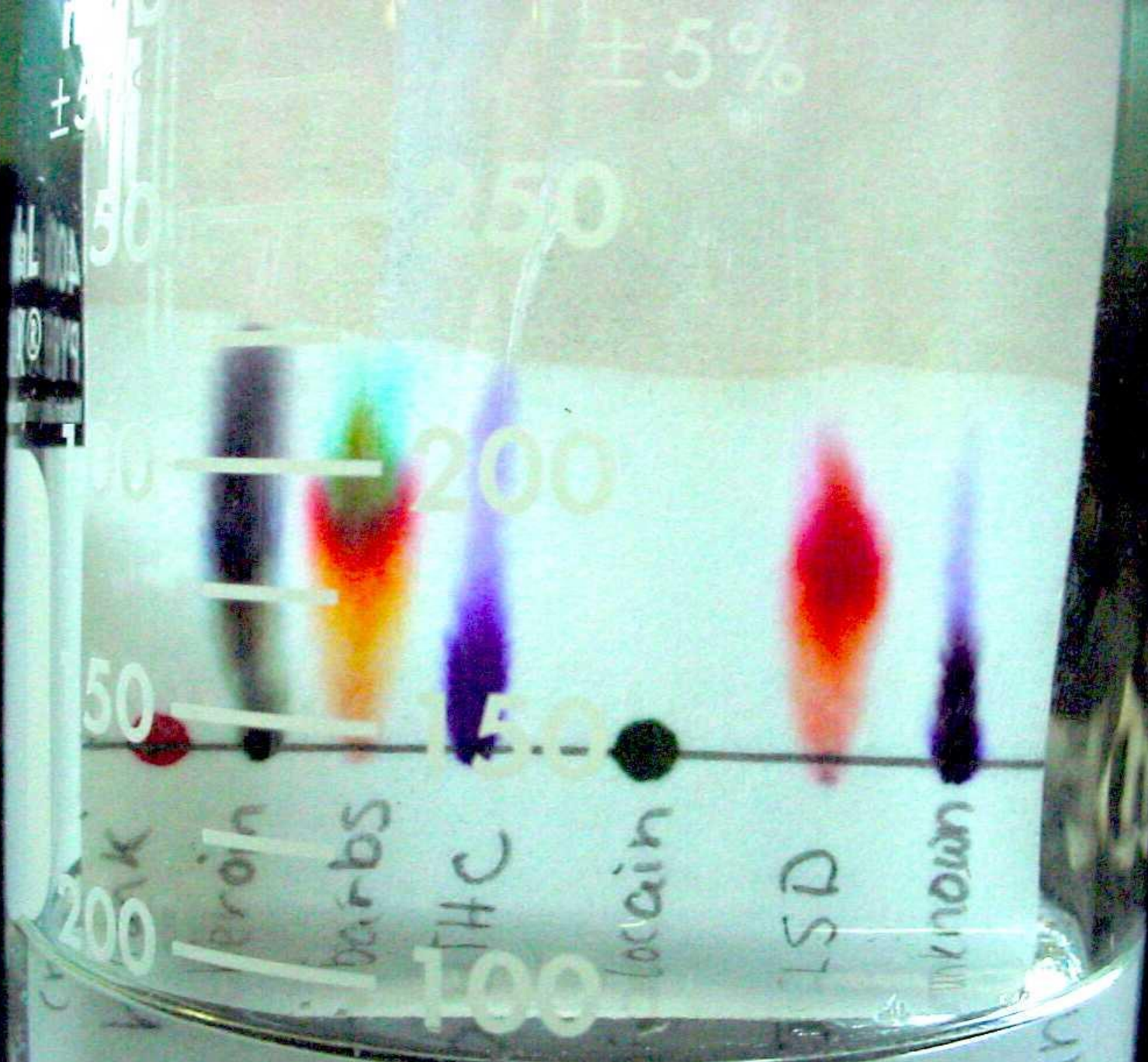
Starting the Sample

- Place the sheet in a container with a solvent
- The bottom of the paper should be submerged into the solvent, but not above the samples

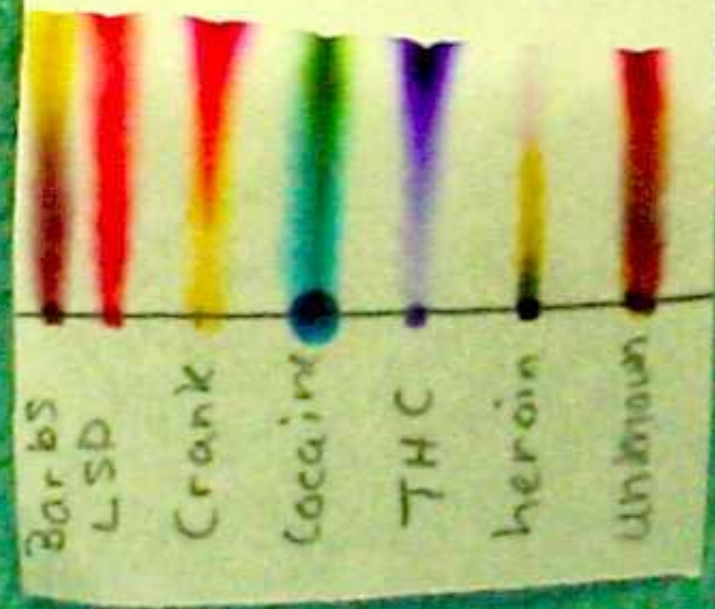
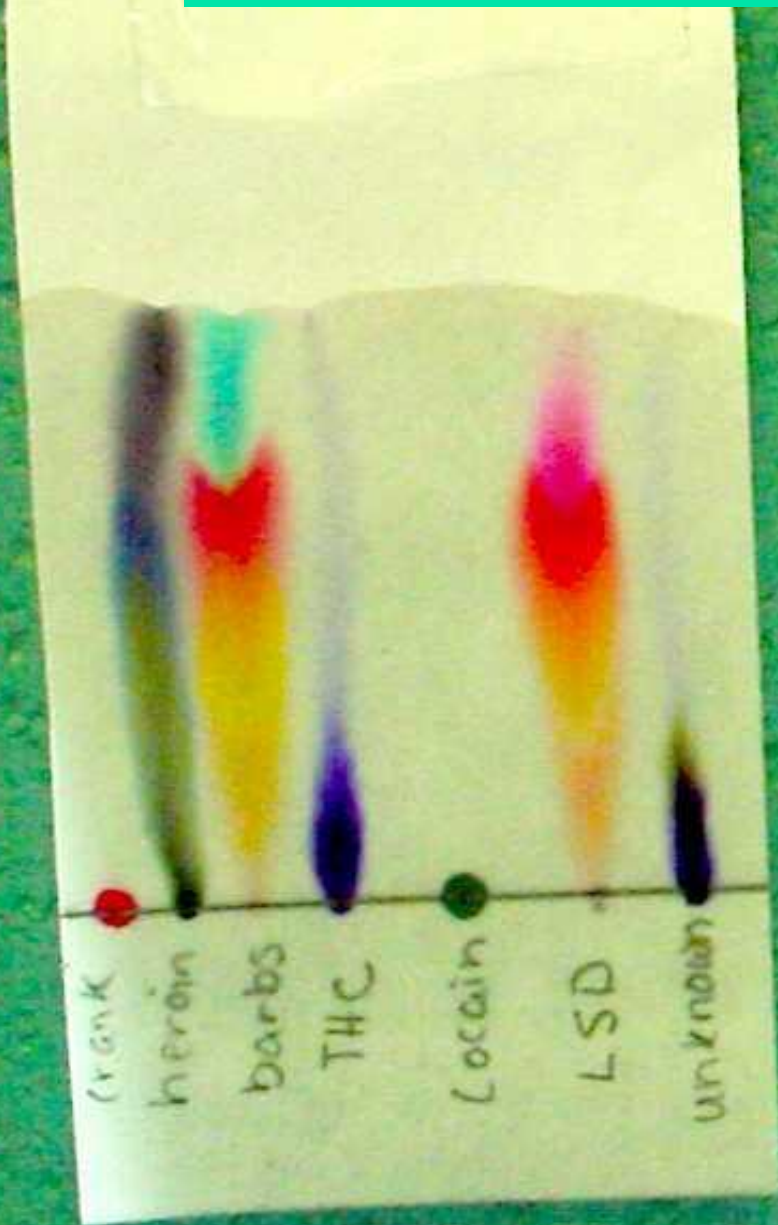


Allow your
samples to run at
least $\frac{1}{2}$ way up
the sample space





Allow your samples to dry





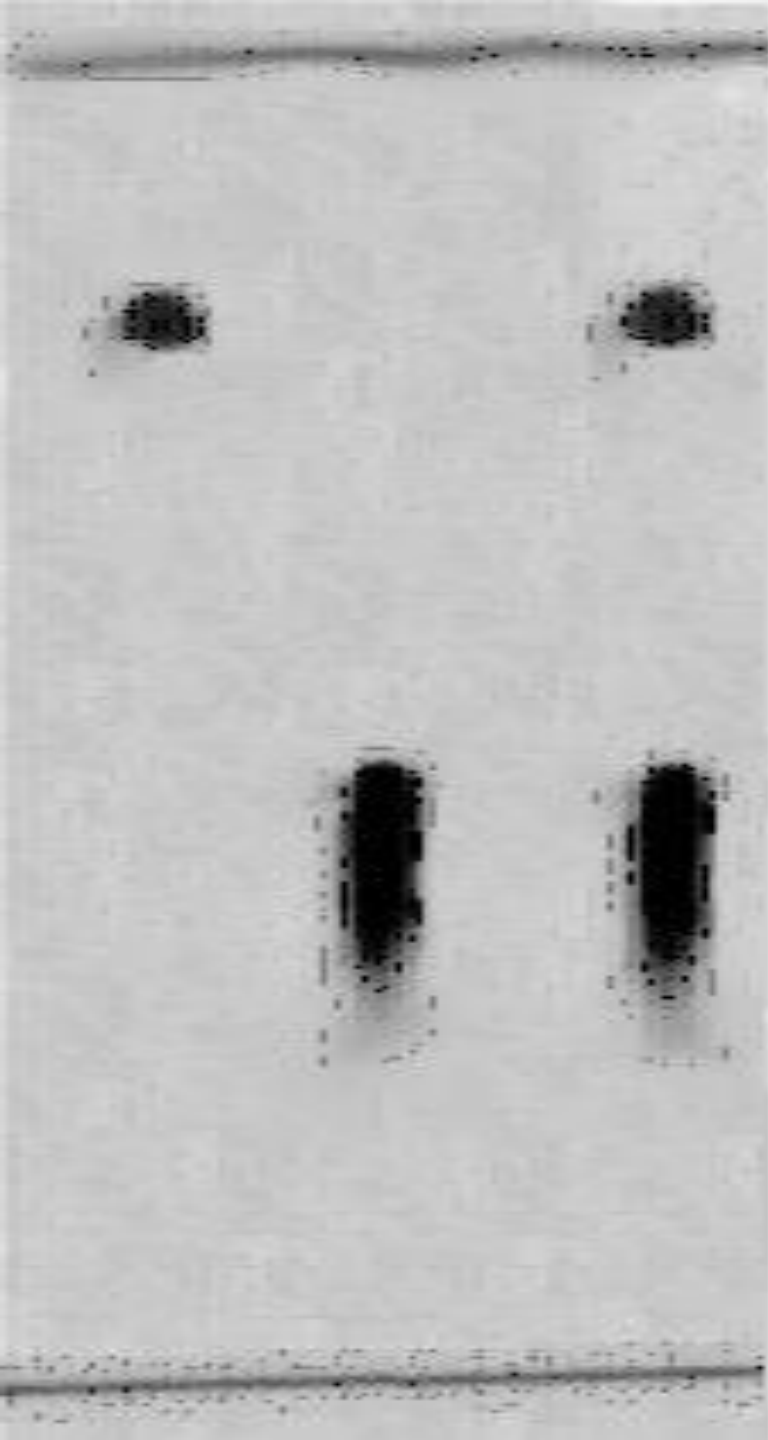
Matching Samples

- Note component colors
- Calculate Rf values



Calculating Rf Values

- Rf value is a ratio of distance a component sample moves to the distance the solvent moves
- This number is usually expressed as a decimal



◀ Solvent finish 10 cm

◀ 8 cm

Calculating Rf Values

◀ 4 cm

$$\begin{aligned} R_f &= 4/10 \\ &= 0.4 \end{aligned}$$

$$\begin{aligned} R_f &= 8/10 \\ &= 0.8 \end{aligned}$$

◀ Starting point