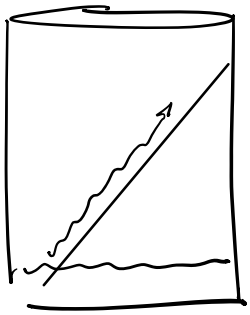
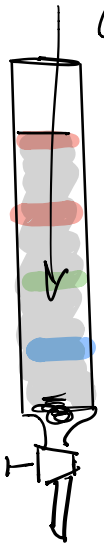
Column Chromatography

TLC



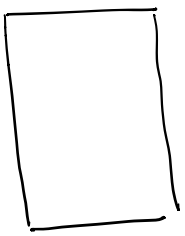
2D

Analysis of Mixtures



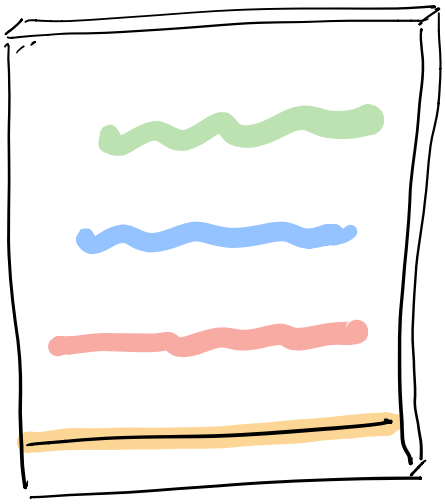
Column 3D

Seperation of Mixture



TLC

Side



Prep TLC

Column Chromatograph (flash Chromatography)

⇒ pressurized

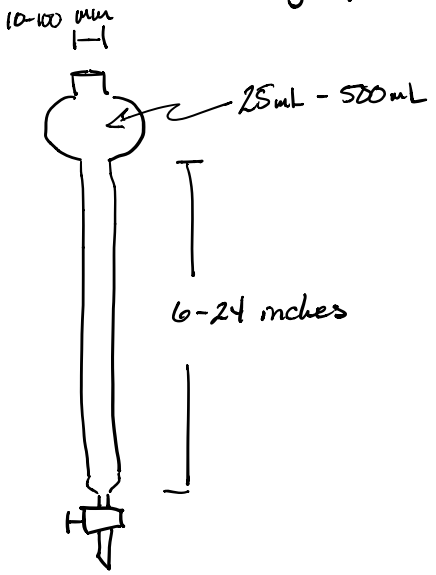
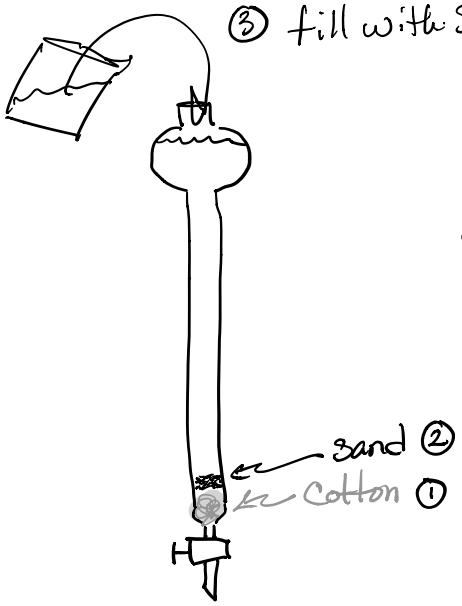
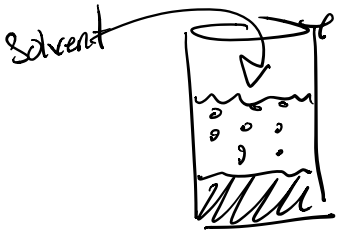
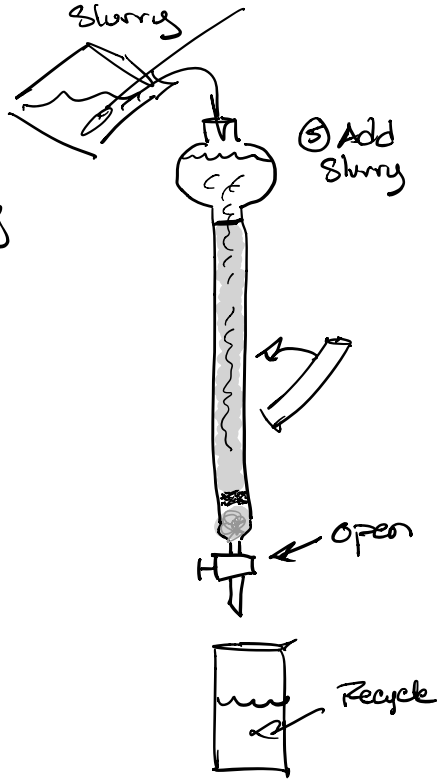


Table in Paxia
in Appendix
g material → dia Column
Height Column
g of Solid Support

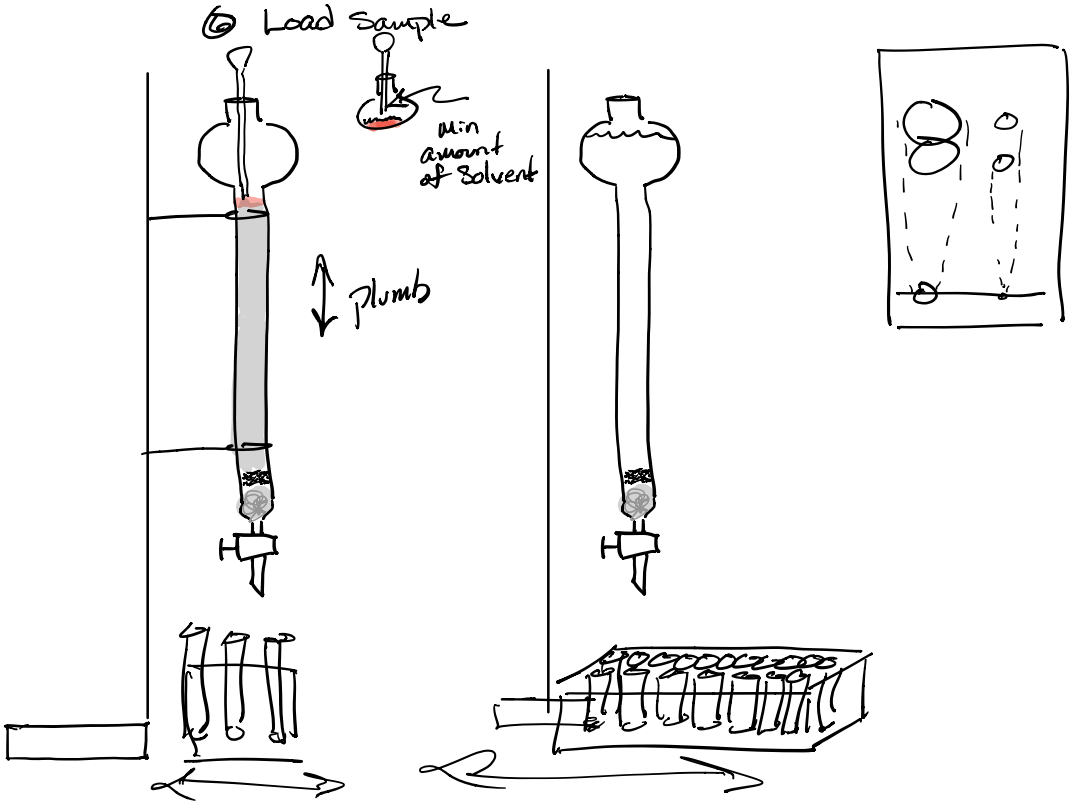
Packing & Preparing Column



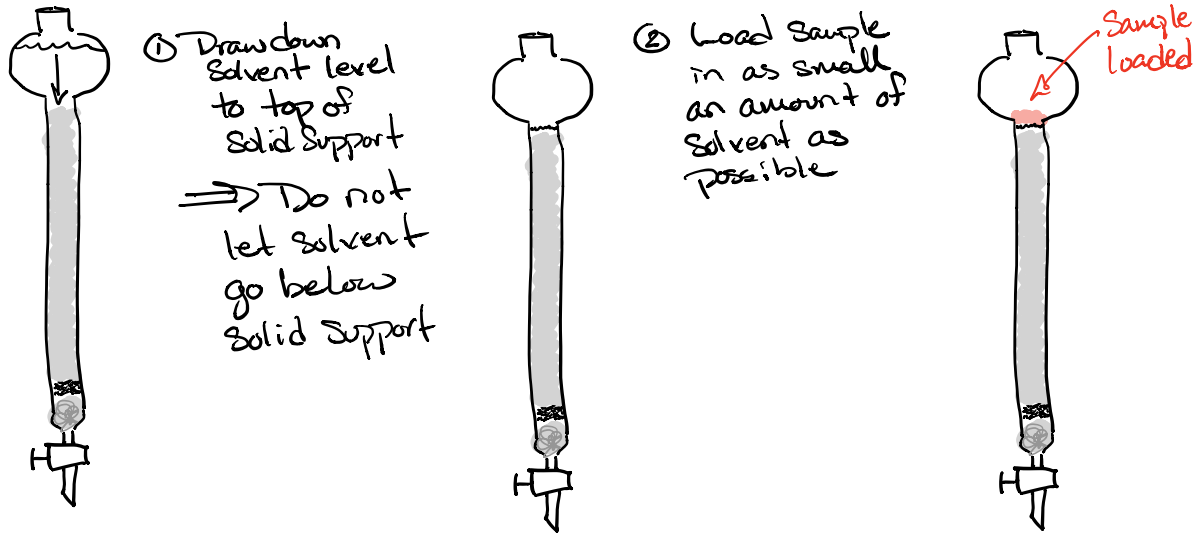


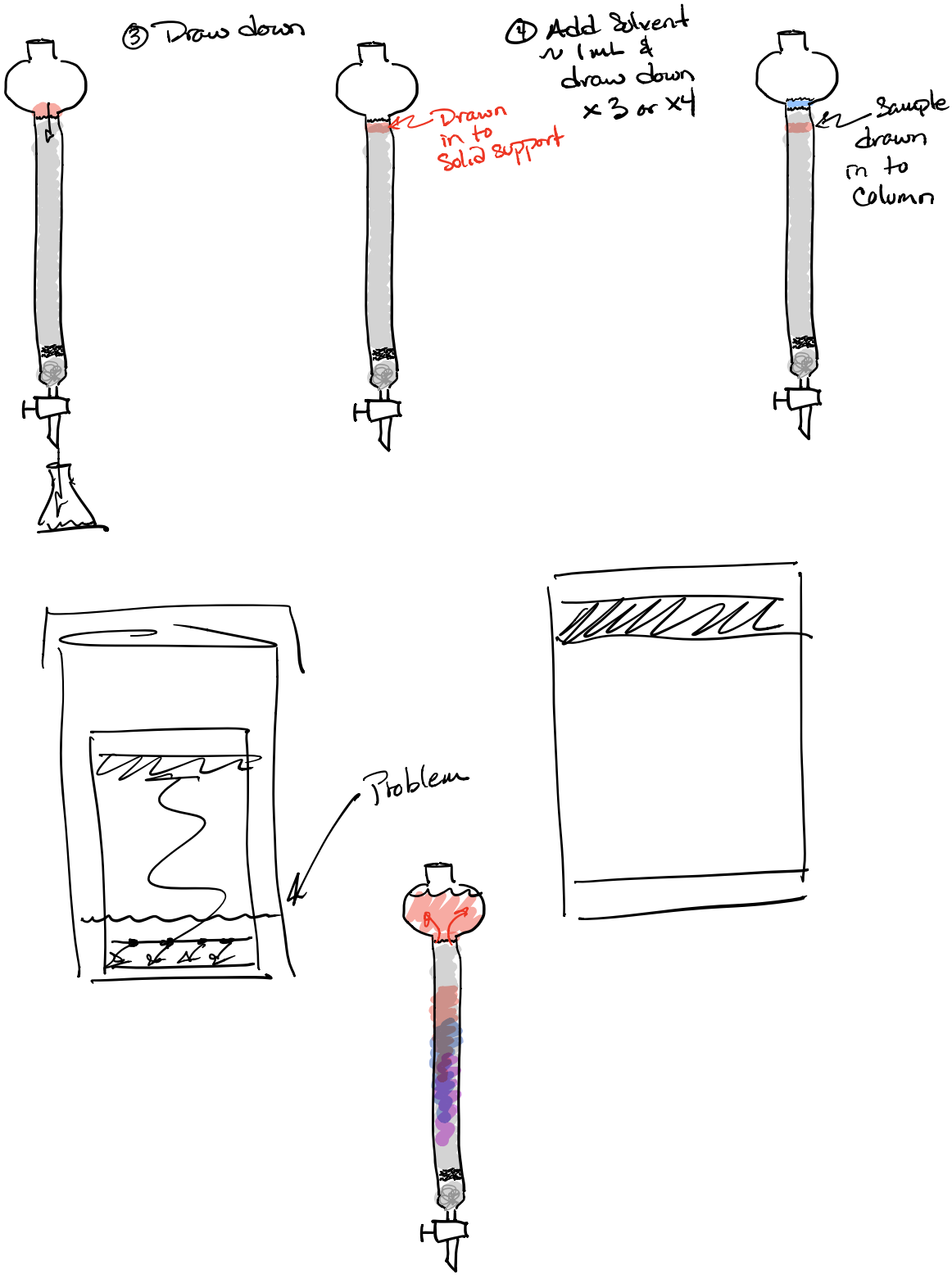


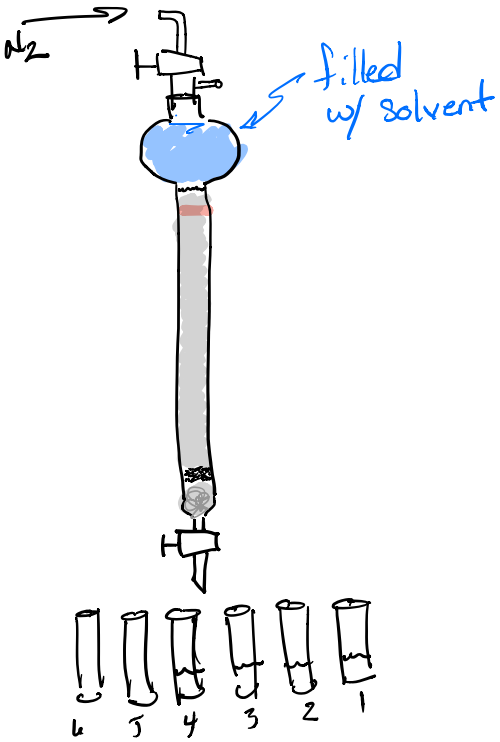
Loading & Running Column



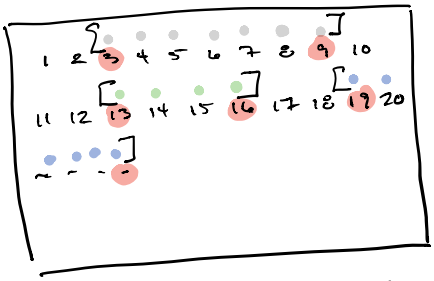
Preparing to load Sample



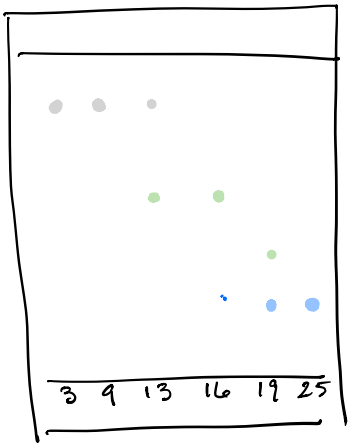

③ Draw down
④ Add solvent
~ 1 mL &
draw down
x 3 or x4
Drawn in to Solid support
Sample drawn in to Column
Problem



Analyse test tubes



View under UV or sometimes we stain it

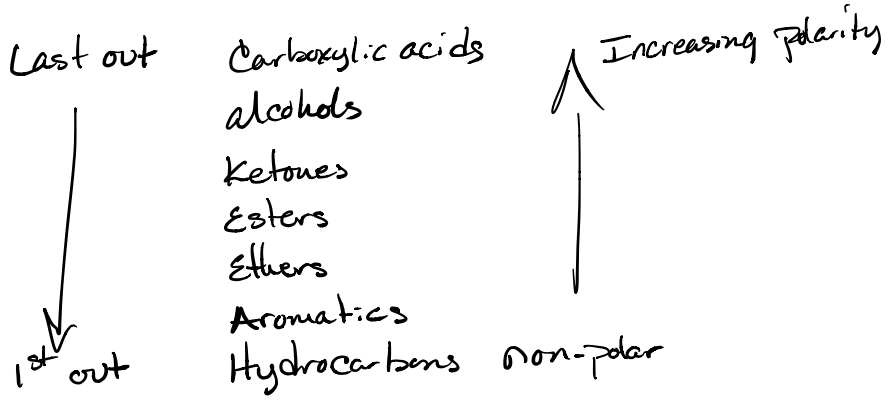


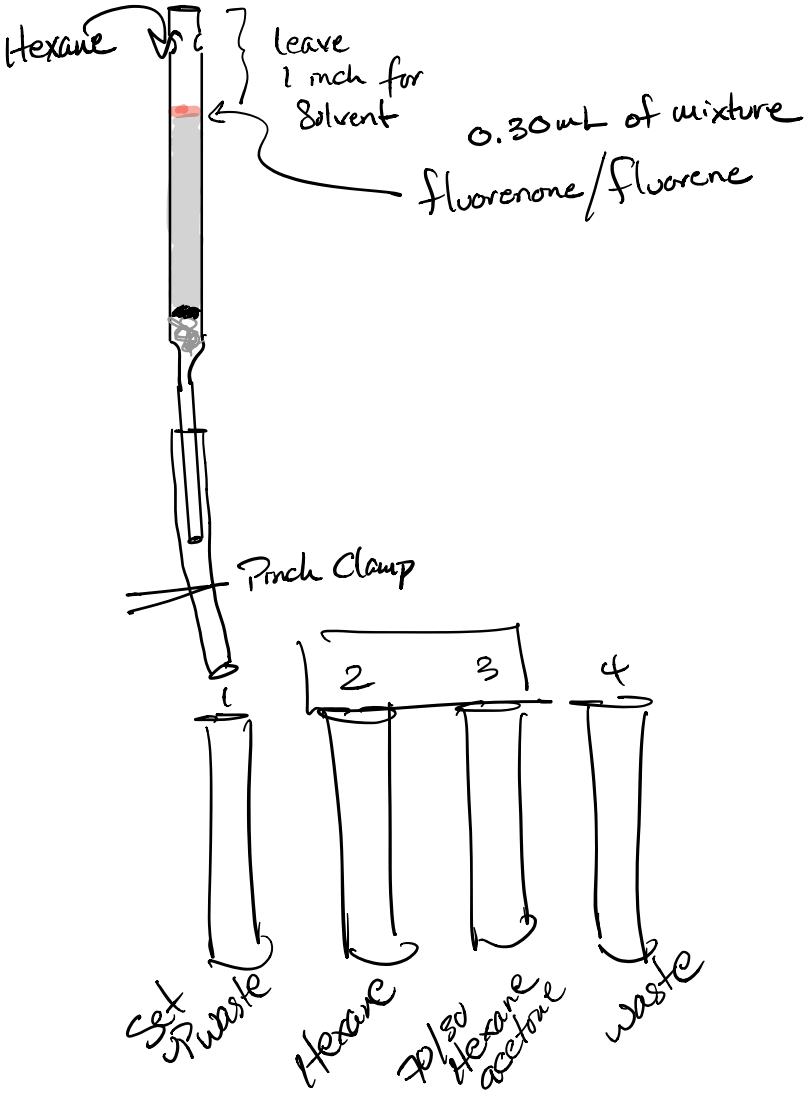
Silica gel SiO_2

Alumina Al_2O_3

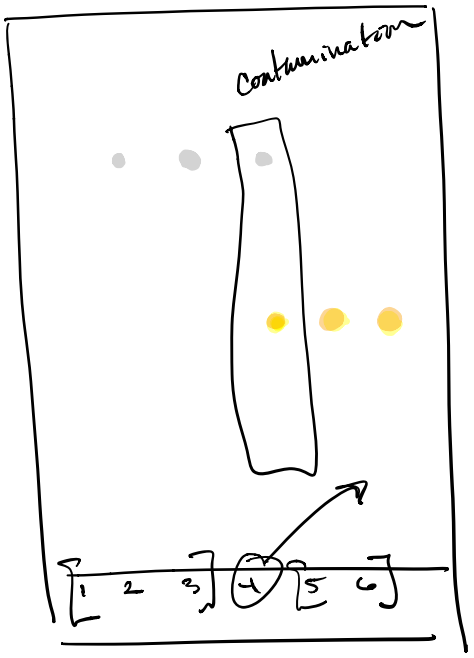
} Strong Lewis acids don't dissolve in solvents

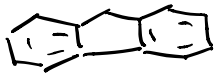
Elution order



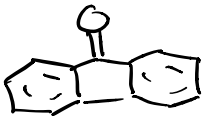


develope in CH_2Cl_2





fluorene



fluorenone

$$\text{Partition Coef} = \frac{[\ ]_{\text{mobile phase}}}{[\ ]_{\text{stationary phase}}}$$

solvent

solid support