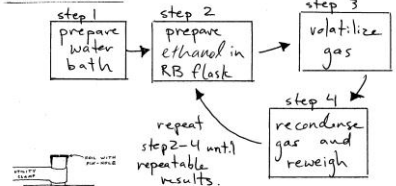
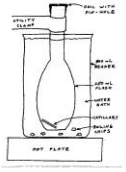
Equipment: ring stand and clamp
hot plate
800 mL beaker (for water bath)
250 mL round bottom flask with stopper
capillary tube
aluminum foil
ethanol

Flow Chart:





EXPERIMENTAL SETUP

Procedure:

Step 1: prep H_2O bath (in hood)

→ fill an 800 mL beaker ~$\frac{1}{2}$ full with H_2O
→ add ~3 drops 6M HCl
→ add several boiling chips
→ heat water to boiling on hot plate.

Step 2: prep ethanol in RB flask.

→ weigh clean (no water!!) RB flask with stopper and capillary tube to 0.01 g.
m("empty" flask) = _____ g

→ add at least 2mL of liquid to flask using 10mL grad cylinder
→ cover top of flask with aluminum foil and poke small hole in top of foil.

Procedure (cont.):

Step 3: Volatilize the ethanol

→ clamp flask in boiling water, submerging flask as much as possible
→ observe liquid evaporation
→ ~1 minute after liquid has all left capillary tube, remove flask from boiling water

Step 4: Recondense and weigh flask with ethanol

→ once flask has cooled to room temperature, stopper and reweigh
m(flask w/ethanol) = _____ g
_____ g
_____ g

Repeat determination by adding ~1mL ethanol to flask, covering with foil with hole and revolatilizing

→ measure V(flask) with water V = _____ mL
→ measure P(barometric) P = _____ mm Hg