

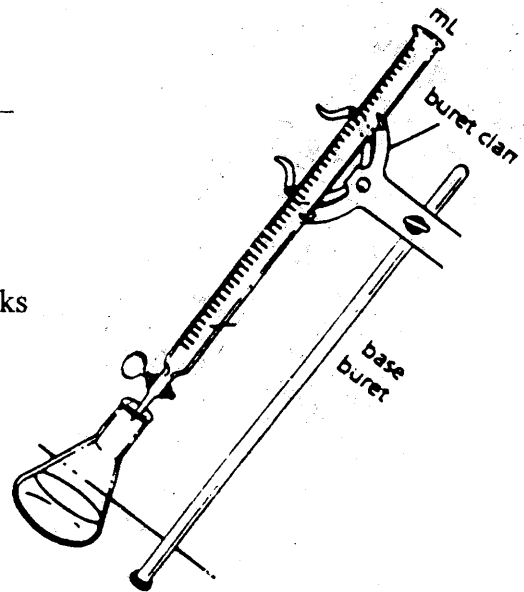
Name _____ Date _____

Acid-Base Titration

Equipment

Buret
Graduated Cylinder
Beakers
Lab Apron

Buret Stand
Erlenmeyer Flasks
Goggles



Materials

0.100 M HCl
NaOH (Unknown Concentration)
Phenolphthalein

Safety

Wear goggles at all times during this lab. Acid/Base solutions may be poured down the sink once pink as they are approximately neutral in pH.

Procedure

1. Rinse buret with base solution briefly to ensure no old chemicals remain in it.
2. Add 10 mL of HCl solution to an Erlenmeyer flask and 10 mL of water.
3. Add three drops of phenolphthalein to the flask and swirl around.
4. Place flask under buret on top of a white piece of paper.
5. Record the initial volume of the NaOH in the buret then slowly add the base to the HCl in the flask. (Swirl the flask gently as you add base)
6. When you see a pink color beginning to persist add the base dropwise to the HCl in the flask.
7. When a faint pink color stays for about one minute record the final volume on the buret.
8. Repeat steps 1-7 for each group member. (Each group should have at least two trials)
9. Dispose of all waste properly and complete chart, calculations and questions.

$M_1 \times V_1 = M_2 \times V_2$ (This formula will be used to calculate the concentration of the NaOH solution)

NaOH Buret Readings	Trial 1	Trial 2	Trial 3
Initial Reading			
Final Reading			
Volume Used			

Calculations and Questions

1. Calculate the concentration of NaOH based on the your trials. (*Show Work*)