

Chemistry 11

Lab Report 7

Titration of an Unknown Acid

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Block: 1

Purpose (1 mark)

In this lab we will be performing a titration using a standard solution to...

Introduction (5 marks)

To find the unknown concentration of a solution a titration was used. A titration uses the known concentration of a standard solution as well as a known volume of unknown solution to... _____

(Draw a diagram)

Materials

(3 marks)

Chemicals

- _____ mol/L NaOH Solution
- Unknown mol/L HCl Solution
- Phenylethane indicator solution

Equipment

- _____ ml burette
- _____ ml pipette
- _____ Erlenmeyer flask
- Phenylethane indicator solution

Procedure (4 marks)

To perform the titration, the following steps were used.

Step 1: The 25mL burette was filled with 0.100mol/L NaOH standard solution

Step 2: Using a pipette, 5.0 mL of.....

Step 3:

Step 4:

Step 5:

...

Data (4 marks)

Concentration of NaOH: _____

	Trial 1	Trial 2	Trial 3	Trial 4
Initial Reading of Burette (mL)				
Final Reading of Burette (mL)				
Volume of NaOH Used (mL)				

Average volume of NaOH used: _____ (from the closest 3 results)

Calculations (5 marks)

Your calculations need to be neat and organized for how you found the concentration of the unknown acid. Show all workings

Discussion (5 marks)

Include the following in your discussion:

- *Full chemical equation of the reaction including phase symbols*
- *discuss factors of the experiment that may not have been planned or only occurred on your specific trial.*
- *Were there any errors that may have changed your results?*
- *Were the results you obtained what you expected?*

Results (2 marks)

Briefly, in 1 or 2 sentences state your findings. In this case, what was your concentration of unknown acid and how did you arrive at your answer.

Using the titration procedure, it was discovered that the unknown solution of acid used had a concentration of... _____
