

Burning the whole school

Mixer

Usage: Used for mixing mixtures from the burette and pipette.

Burette

Usage: Used to take measurement of chemical substances and make mixtures

Pipette

Usage: Used for taking bases to the marking point and making an acidic base or a basic acid

Experiment Report

Procedure

Preparation Rinse the burette with distilled water and then with the NaOH solution. Fill the burette with the NaOH solution, ensuring there are no air bubbles. Pipette a known volume of the vinegar solution into the Erlenmeyer flask. Adding Indicator Add a few drops of phenolphthalein indicator to the vinegar solution in the flask. Titration Slowly add the NaOH solution from the burette to the flask, while swirling gently to mix. Continue to add NaOH solution until the pink color, indicating the endpoint, is reached and persists for at least 30 seconds. Record the initial and final volume readings from the burette. Data Analysis Use the volume and concentration of the NaOH solution to calculate the moles of NaOH used. Use the balanced chemical equation for the reaction of acetic acid and sodium hydroxide to find the moles of acetic acid.

Result

Initial volume of NaOH solution in the burette: [Initial Volume] Final volume of NaOH solution in the burette: [Final Volume] Volume of NaOH solution used: [Final Volume - Initial Volume] Concentration of NaOH solution: [Known Concentration] Moles of NaOH used: [Calculated Moles] Using the balanced equation for the reaction between acetic acid and sodium hydroxide, you can calculate the moles of acetic acid reacted. Moles of acetic acid reacted: [Calculated Moles]

Conclusion

The concentration of acetic acid in the vinegar solution was determined to be [Concentration of Acetic Acid]. The experiment demonstrated the principle of acid-base titration and the use of stoichiometry to calculate the concentration of an unknown substance in a solution.

Students Attendance

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