8th July, 2019

Experiment 03:

Data Collection:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reading No. | Initial Burette  Reading / | Midpoint / | Final Burette  Reading / | Difference / |
| 01 |  |  |  |  |
| 02 |  |  |  |  |
| 03 |  |  |  |  |

Calculation:

Average

Percentage Error

Experiment No. 3

Name of Experiment: Standardization of with Standard Solution

Theory:

A standard solution of is used to standardize the solution by titration. A solution of known concentration () is used to find the concentration of another solution (). An indicator is also used, and when it changes colour, the titration is said to be complete.

Apparatus Required:

Pipette, Burette, Conical Flask

Procedure:

1. of standard solution was taken in a conical flask and diluted to about using distilled water.
2. A few drops of phenolphthalein indicator were added to the solution.
3. solution, prepared in the same was as in experiment 02, was added drop by drop with a burette.
4. Addition of was stopped as soon as the solution lost its colour. The first end point had been reached.
5. A few drops of methyl orange indicator were added to the solution.
6. More solution was added.
7. The addition of was stopped as soon as the solution changed colour from yellow to a faint pink. The burette reading was taken.
8. The steps were repeated until the results obtained were deemed to be fairly accurate. The average of the most accurate results was used in calculations.
9. The strength of the dilute and the normality of the commercial concentrated were calculated.

Data:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Reading No. | Initial Burette  Reading / | Midpoint / | Final Burette  Reading / | Difference / |
| 01 |  |  |  |  |
| 02 |  |  |  |  |
| 03 |  |  |  |  |

Calculation:

Average

Results:

The strength of the dilute is .

The normality of the concentrated is .

Percentage Error:

Percentage Error

Discussion:

All the apparatus was thoroughly cleaned before being set up. The solution was measured using a pipette. Both these steps ensured that the results obtained are fairly accurate.