8th July, 2019

Experiment 02:

Data Collection:

|  |  |  |  |
| --- | --- | --- | --- |
| Reading No. | Initial Burette  Reading / | Final Burette  Reading / | Difference  (IBR – FBR) / |
| 01 |  |  |  |
| 02 |  |  |  |
| 03 |  |  |  |

Calculation:

Average volume of

[Experiment 01]

Percentage Error

Experiment No. 2

Name of Experiment: Standardization of Commercial Hydrochloric Acid with Standard Solution

Theory:

A standard solution of is used to standardize the solution by titration. In this technique, a solution of known concentration, in this case, is used to find the unknown concentration of another solution, in this case. An indicator is also used, and when it changed 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 methyl orange indicator were added to the solution.
3. A solution of acid that was previously prepared (approximately ) was added to the conical flask dropwise using a burette. The flask was continuously shaken during the addition.
4. The addition was stopped as soon as the solution changed colour from yellow to orange. The burette reading was taken.
5. The steps were repeated multiple times until fairly accurate results were obtained. The average of the most accurate results was used in calculations.
6. The normality of the dilute and the strength of the commercial were calculated.

Data:

|  |  |  |  |
| --- | --- | --- | --- |
| Reading No. | Initial Burette  Reading / | Final Burette  Reading / | Difference  (IBR – FBR) / |
| 01 |  |  |  |
| 02 |  |  |  |
| 03 |  |  |  |

Calculation:

Average volume of

[Experiment 01]

Results:

The normality of the dilute solution was .

The strength of the commercial acid was .

Percentage Error:

Percentage Error

Discussion:

All the apparatus was washed carefully before being set up. A pipette was used to measure the exact volume of required. Both these steps ensured that the results obtained are fairly accurate.