EXPERIMENT:02

Experiment title: Determination of the strength of an unknown sodium carbonate solution from potentiometric titration of a given sodium carbonate using aqueous hydrochloric acid.

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ROLL NO. 21CY10005

SECTION 12

|  |  |  |
| --- | --- | --- |
| Volume of HCl added(ml) | EMF | ΔEMF/ΔV |
| 0 | -205 |  |
| 2 | -183 | 11 |
| 4 | -165 | 9 |
| 8 | -143 | 5.5 |
| 10 | -128 | 7.5 |
| 11 | -95 | 33 |
|  |  |  |
| 11.2 | -50 | 225 |
| 11.4 | -12 | 190 |
| 11.6 | -7 | 25 |
| 11.8 | -1 | 30 |
| 12 | 3 | 20 |
| 12.2 | 9 | 30 |
| 12.4 | 12 | 15 |
| 12.6 | 15 | 15 |
| 12.8 | 18 | 15 |
| 13 | 23 | 25 |
| 15 | 48 | 12.5 |
| 17 | 62 | 7 |
| 19 | 82 | 10 |
| 21 | 114 | 16 |
| 22 | 149 | 35 |

|  |  |  |
| --- | --- | --- |
| 22.2 | 170 | 105 |
| 22.4 | 208 | 190 |
| 22.6 | 227 | 95 |
| 22.8 | 238 | 55 |
| 23 | 249 | 55 |
| 23.2 | 255 | 30 |
| 23.4 | 259 | 20 |
| 23.6 | 266 | 35 |
| 23.8 | 269 | 15 |
| 24 | 271 | 10 |
| 26 | 288 | 8.5 |
| 28 | 299 | 5.5 |
| 30 | 307 | 4 |
| 32 | 312 | 2.5 |

