**Lab (4)**

 **Estimation of inorganic phosphate in soft drink**

**Method:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Standard** | **Soft drink sample** | **Water** | **Ammonium molybdate** | **Ascorbic acid** |
| Blank | ---- | ---- | 2 | 0.5 ml | 0.5 ml |
| 3 ppm | 2 | ---- | --- |
| 4.5 ppm | 2 | ----- | --- |
| 6 ppm | 2 | --- | --- |
| 12 ppm | 2 | --- | --- |
| 15 ppm | 2 | --- | --- |
| SD  | --- | 0.5 | 1.5 |
| SD | --- | 0.2 | 1.75 |

- Mix throughly after each addition .

- Allow to stand for10 min. (a deep blue/green color should develop).

- Measure the absorbance at 650 nm.

**Results:**

|  |  |
| --- | --- |
|  | **Absorbance** |
| 3 ppm |  |
| 4.5 ppm |  |
| 6 ppm |  |
| 12 ppm |  |
| 15 ppm |  |
| SD |  |
| SD |  |

- Plot a graph between absorbance and concentration of phosphate in various standard solutions and obtain the calibrated curve.

- From the curve determine the amount of phosphate in the test solution.

**Calculation:**

Inorganic phosphate= dilution factor used x concentration.