**Lab sheet #7**

**-Titration curve of amino acids -**

**Objectives:**

* To study titration curves of amino acid.
* To use this curve to estimate the pKa values of the ionizable groups of the amino acid.
* To determine pI.
* To determine the buffering region.
* To understand the acid base behaviour of an amino acid.

**Method and results:**

1. You are provided with 10 ml of a 0.1M alanine solution, titrate it with 0.1M NaOH adding the base drop wise mixing, and recording the pH after each 0.5 ml NaOH added until you reach a pH=11.

|  |  |
| --- | --- |
| **Measured pH value** | **Amount of 0.1M NaOH added [ml]** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

1. Take another 10 ml of a 0.1M alanine solution, titrate it with 0.1 M HCl adding the aciddrop wise mixing, and recording the pH after each 0.5 ml HCL added until you reach a pH=2.17.

|  |  |
| --- | --- |
| **Measured pH value** | **Amount of 0.1M HCl added [ml]** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |