**Lab sheet #7**

**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.

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| **Measured pH value** | **Amount of 0.1M NaOH added [ml]** |
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1. Take another 10 ml of a 0.1M alanine solution, titrate it with 0.1 M HCl adding the acid drop wise mixing, and recording the pH after each 0.5 ml HCL added until you reach a pH=2.17.

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

[1] record the titration table and Plot a Curve of pH versus ml of OH- added.

[2] Calculate the pH of the alanine solution after the addition of 0 ml, 5ml, of 0.2M NaOH. And calculate PH after addition of 0.5 ml, 2 ml of HCL

[3] determine the pKa of ionizable groups of amino acids

[4] Compare your calculated pH values with those obtained from Curve.

[5] determine the PI value from your result.