Chemistry 1110 Use of the Analytical Balance and Lab Techniques

Date: _____ Name: _____ Lab day/time: _____

Object: As in Chem 1110 lab manual – pp. _____

Procedure: As in Chem 1110 lab manual - pp. _____

Observations:

Data:

Part I:

Mass of KHP plus boat	
Mass of "empty" boat	
Mass of KHP	
Volume of volumetric flask	

Part II:

Run	**Volume of KHP solution**	**$V_{Initial}$ NaOH**	**V_{Final} NaOH**	**V_{Used} NaOH**	**Endpoint Colour/shade & Time lasted**
1					
2					

Part III:

Run	**Volume of Unknown HCl**	**$V_{Initial}$ NaOH**	**V_{Final} NaOH**	**V_{Used} NaOH**	**Endpoint Colour/shade & Time lasted**
1					
2					

Calculations: (Always show the full calculation unless specified otherwise.)

Part I:

Calculate the molar mass of $KC_8H_5O_4$ (KHP):

Calculate the concentration of the KHP solution in mole/L

Part II:

Calculate the concentration of the NaOH solution for each run (show one run in detail and the result from the other) and then average the concentrations (If one run has a known error, still calculate the concentration, but omit it from the average, and state why you omitted it from the average):

Run 1:

Run 2:

Average:

Part III:

Using the average concentration of the NaOH solution, calculate the concentration of the unknown HCl solution for each run (show one run in detail and the result from the other) and then average the concentrations (If one run has a known error, still calculate the concentration, but omit it from the average, and state why you omitted it from the average):

Run 1:

Run 2:

Average:

Results:

Concentration of KHP solution	Concentration of NaOH solution	Concentration of HCl solution

Discussion – Omit
Conclusion - Omit
Questions – Attach answers for any questions assigned by your instructor.