

Name: _____
Blk: _____ Date: _____

Chemistry 12
ACID BASE PART II Lesson # 16
ACID-BASE TITRATIONS

Recall from Chemistry 11:

A titration is a process in which a measured amount of a solution is reacted with a volume of another solution (one of the solution has a unknown concentration) until a desired EQUIVALENCE POINT is reached (generally indicated by a colour change).

The EQUIVALENCE POINT is also known as the _____
as it is reached when the mole to mole ration is equivalent to the ration in the
BALANCED EQUATION!!!

All TITRATION problems have FIVE MAIN PARAMETERS:

- a.
- b.
- c.
- d.
- e.

Example 1. A GENERIC TITRATION PROBLEM: In the reaction between sulphuric acid and sodium hydroxide an equivalence point is reached when 23.10 mL of 0.2055 M NaOH is added to a 25.00 mL portion of H_2SO_4 . What is the $[\text{H}_2\text{SO}_4]$?

Experimental Note: When performing a titration in the lab it must be repeated to check for accuracy of the results. If the following volumes were collected by a student:

1st titration = 21.55 mL
2nd titration = 21.82 mL
3rd titration = 21.81 mL

The student would DISCARD the volume from the first titration and take the AVERAGE of the closest TWO values. $(21.82 + 21.81) / 2 = 21.815 \text{ mL} \Rightarrow 21.82 \text{ mL}$

SEATWORK/HOMEWORK: Exercises 95-107 (odd numbers) pgs 158-159
PLO's: P2-P3