

Chem 106: Class/ Lab

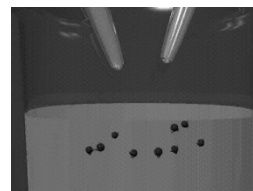
Week 12

Sign in / Pick up Papers

Select a partner for titration experiment, pp. 85-86:

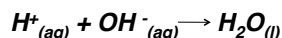
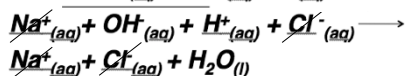
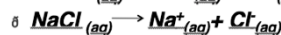
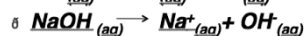
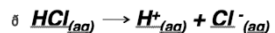
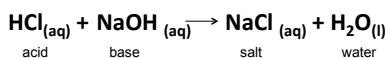
*Complete 2 titration trials of acetic acid in an unknown vinegar sample within the first 90 minutes of lab***Exam 2: Last 90 minutes of lab**

Neutralization Reactions



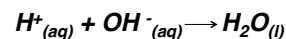
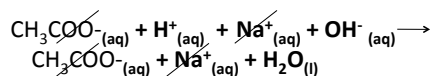
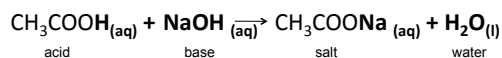
Aqueous Reactions: Neutralization

Net Ionic Equations

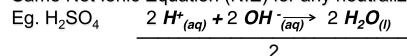


Aqueous Reactions: Neutralization

Net Ionic Equations



Same Net Ionic Equation (NIE) for any neutralization



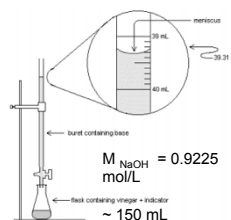
Neutralizations / Titrations



Chem 106 titration: phenolphthalein indicator

<http://chemconnections.org/general/chem120/solutions-mixes.106.html>

Acid-Base Titration & Indicators

<https://www.youtube.com/watch?v=9DAB52LxNE>


M NaOH = 0.9225 mol/L

~ 150 mL

	0	2	4	6	8	10	12	14
Methyl violet	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Thymol blue	Red	Red	Red	Red	Red	Red	Red	Red
Methyl orange	Red	Red	Red	Red	Red	Red	Red	Red
Bromothymol blue	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
Phenolphthalein	Colorless	Colorless	Colorless	Colorless	Colorless	Colorless	Colorless	Colorless
Alizarin yellow R	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow

	Initial	Final	Volume
Volume of Vinegar (mL)			
Final buret reading (mL)			
Initial buret reading (mL)			
Volume of NaOH (mL used)			
Molarity NaOH			0.9225 mol/L
Molarity (M) (mL)			
Mass of acetic acid (grams)			
% acetic acid			

1. Provide Dr. R. with a 250 mL Erlenmeyer flask with your last names on it.
2. Check out a buret & 20. mL pipet.
3. Refer to pp. 85-86; write down unk. #

Chem 106: Class

Week 12

Titration of Vinegar: (Data, pg. 86) *Dr. R. to sign today*

Post Lab Questions: Aqueous Solutions
(Complete Course/ Lab Manual pp. 86-87)
Due Week 13

Turn in Today

- 1) Fluid Exchange
(Course/ Lab Manual pp. 89-90)
- 2) Acid-Base Equilibrium Experiment
(Course/ Lab Manual pp. 79-82)

Chem 106: Class/ Lab

Week 12

Exam 2

Pick up Scantron, and Calculator if needed

*Can use: 2 pages handwritten notes, which are to be
turned in, plus Periodic Table allowed*

After Turning in Exam:

*Pick up Global Warming Handout Questions
plus small Scantron
(Due next week)*