Chapter 14 – Acids and Bases

- Acids and Bases
- Titrations
- Strong and Weak Acids and Bases
- pH and pOH
- Buffers

Acids and Bases

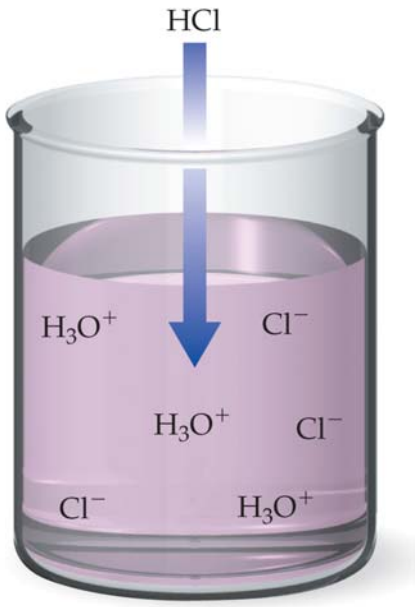
Titrations

In this titration, HCl, analyte, is in the Erlenmeyer flask and NaOH, titrant, is in the burette. Phenolphthalein, which is clear in the presents of an acid and pink in the presents of a base, is added to the HCl. NaOH is added to the HCl and Phenolphthalein until the solution turns pink, which signifies the equivalence point has been reached

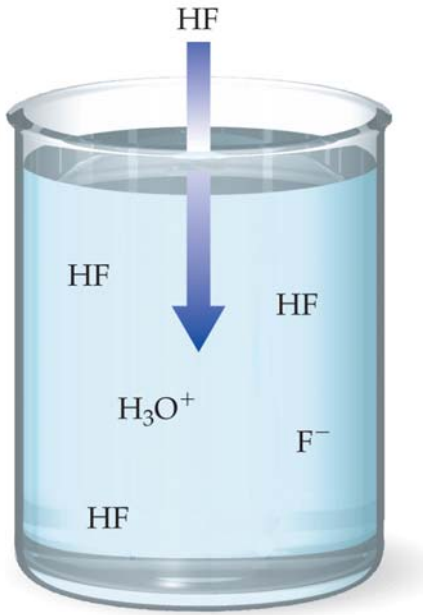
Acids and Bases

Strong and Weak Acids and Bases

Strong Acid



Weak Acid



Strong Acids

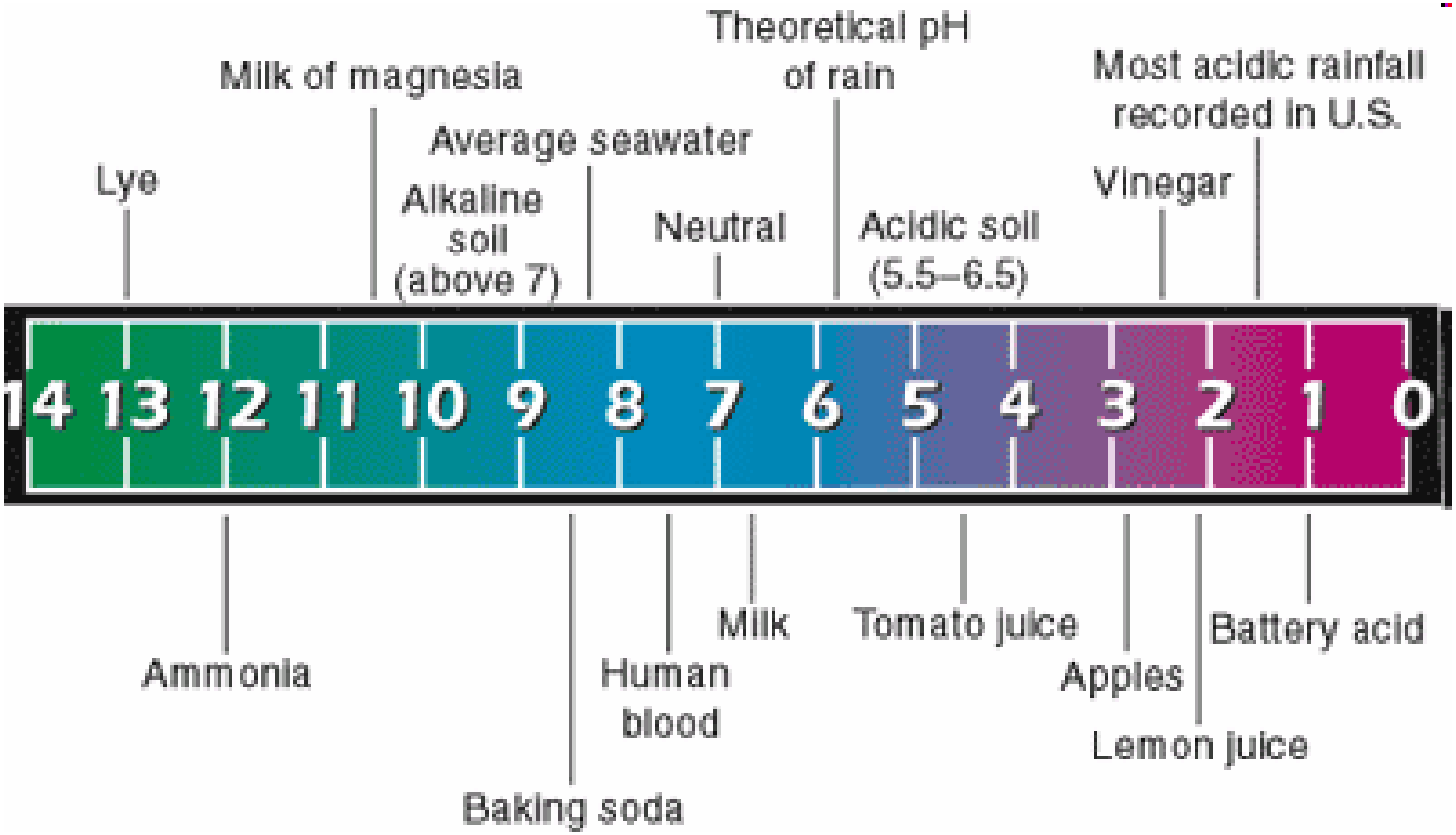
HCl	HNO_3
HBr	$HClO_4$
HI	H_2SO_4

Strong Bases

LiOH	$Sr(OH)_2$
NaOH	$Ca(OH)_2$
KOH	$Ba(OH)_2$

Acids and Bases

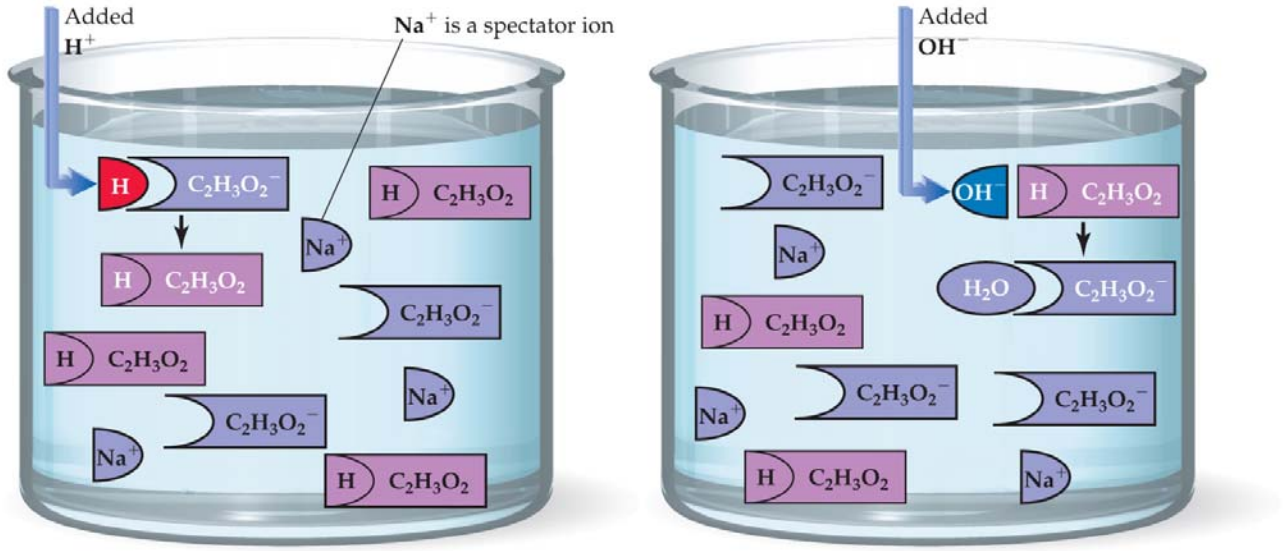
pH and pOH



Acids and Bases

Buffers

Buffer: A solution that resists any change in pH when small amounts of acid or base are added



Buffers Consist of: Weak Acid and its Conjugate Base

($HC_2H_3O_2$ / $NaC_2H_3O_2$)

Weak Base and its Conjugate Acid

(NH3 / NH_4Cl)