

Acid Base Equilibrium

January 14, 2009

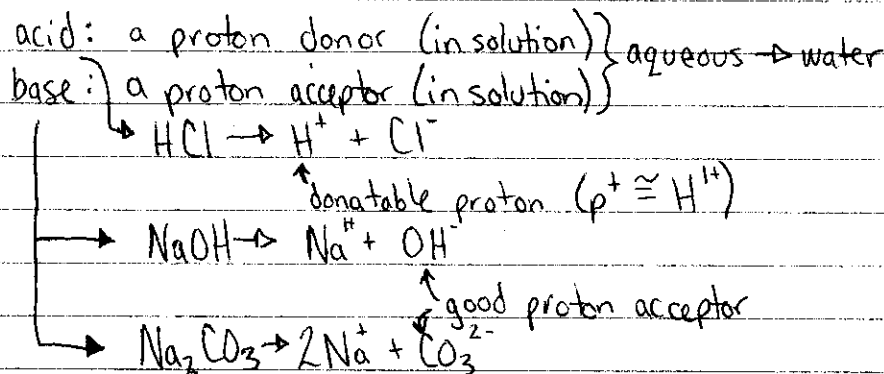
• Definitions

1. Functional (old)
- * 2. Bronsted Lowry → USED*
3. Lewis (for completion)

→ Functional

Acid	Base
- react w metals to make H_2	- do not react w metals
- sour	- bitter
- feels clean	- feels slippery
- turns litmus red	- turns litmus blue
- H^+ in water	- OH^- in water

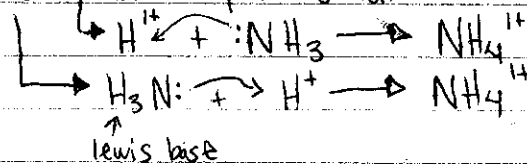
→ Bronsted



→ Lewis

acid: an e^- pair acceptor

base: an e^- pair donor



e^- pair acceptors w hydrogen include:
 $BF_3, AsF_5, SF_6, Sn^{2+}, Fe^{2+}$

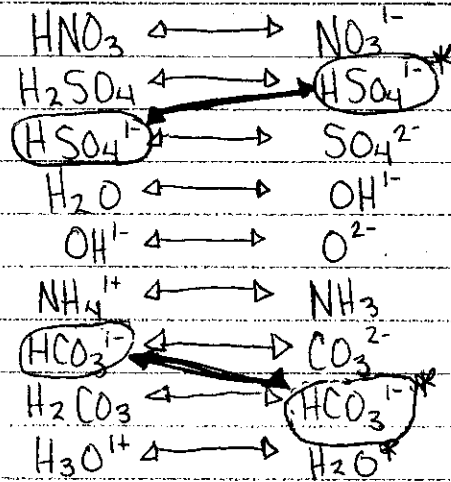
• Bronsted Conjugate Acid/Base Pair Theory

conjugate acid $\xleftrightarrow{+H}$ conjugate base



Microscopy





↑ meet hydronium

* HCO_3^- , HSO_4^- , H_2O etc → amphiprotic substances
 can go both ways

