

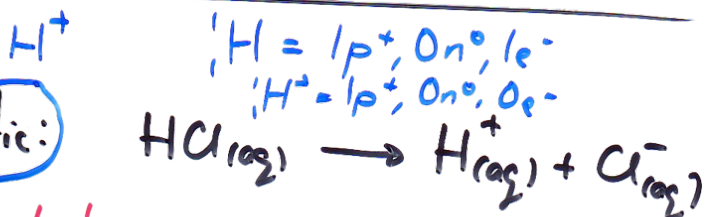
9-28-11

Acids + Bases

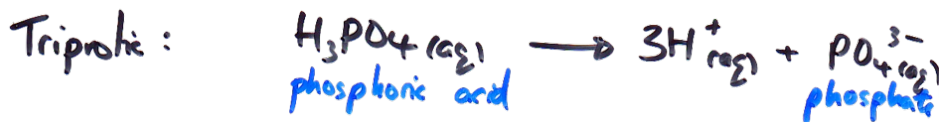
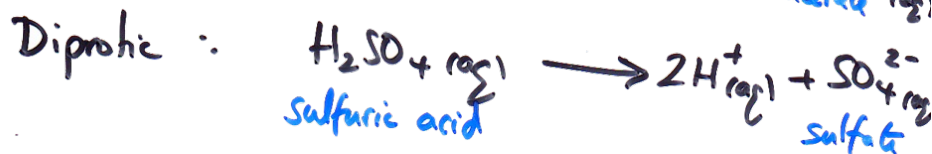
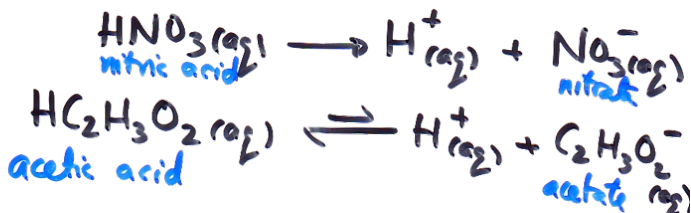
taste sour
turn litmus red
H⁺ ions in water (Arrhenius)

taste bitter
feel slippery
turns litmus Blue!
Form OH⁻ in water (Arrhenius)

Acids
|
Monoprotic:

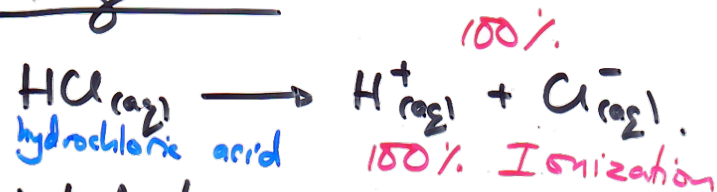


1 H⁺ ion/molecule

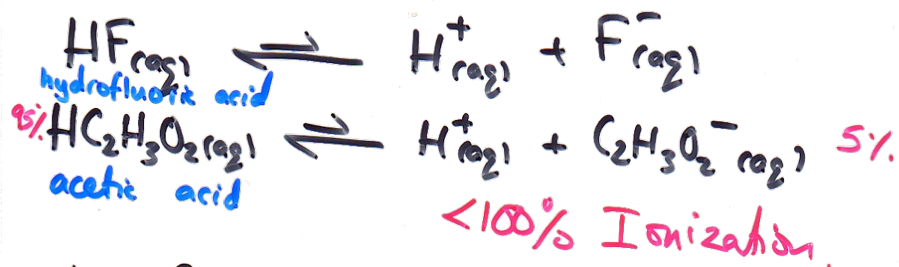


Polyprotic : > 1 H⁺ / molecule.

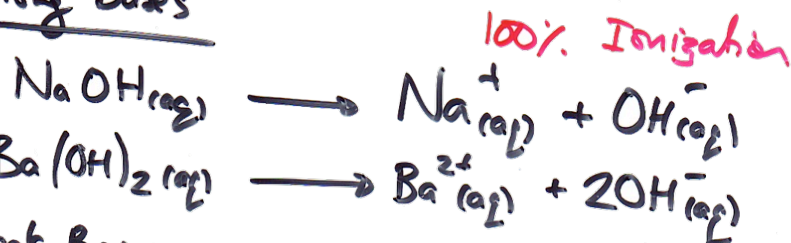
Strong Acids



Weak Acids



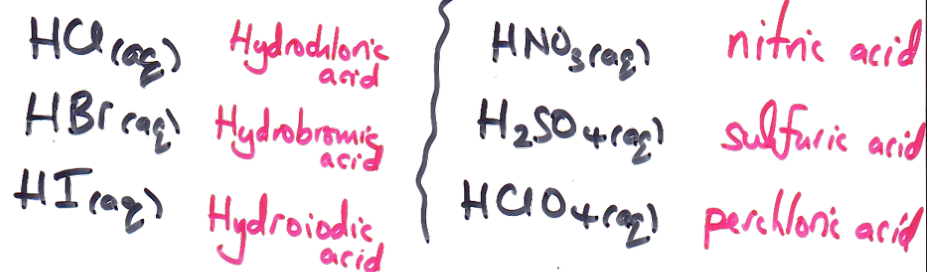
Strong Bases



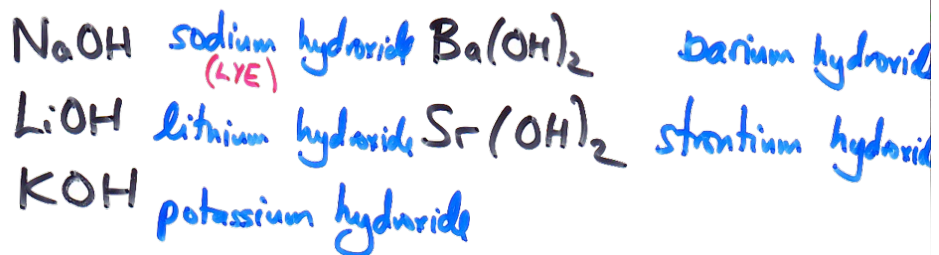
Weak Bases

- tend to react w/ H₂O to form OH⁻ ions.
ex: $\text{NH}_3 + \text{H}_2\text{O} \rightleftharpoons \text{NH}_4^+(\text{aq}) + \text{OH}^-(\text{aq})$
AMMONIA | AMMONIUM

6 Strong Acids



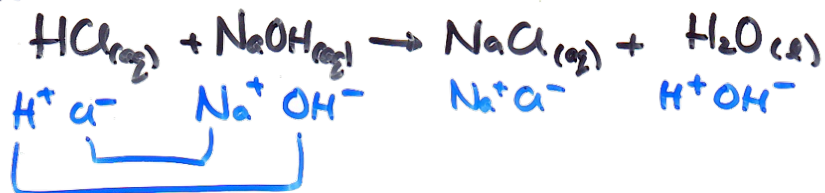
5 Strong Bases



Neutralization Reactions

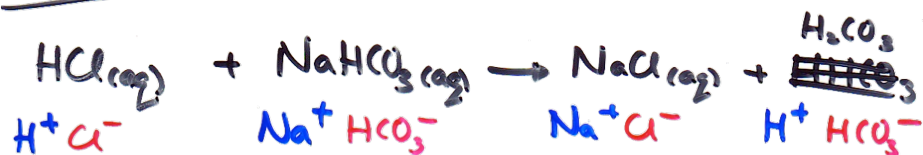
Acids + Bases \rightarrow Salts + Water

ex:



Bicarbonates + Carbonates are Basic ions!

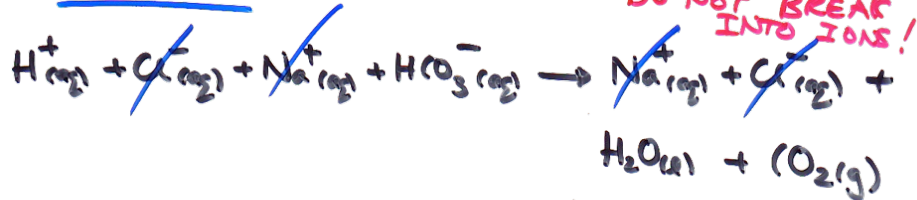
$\text{HCO}_3^- \quad \text{CO}_3^{2-}$



MOLECULAR



FULL-IONIC

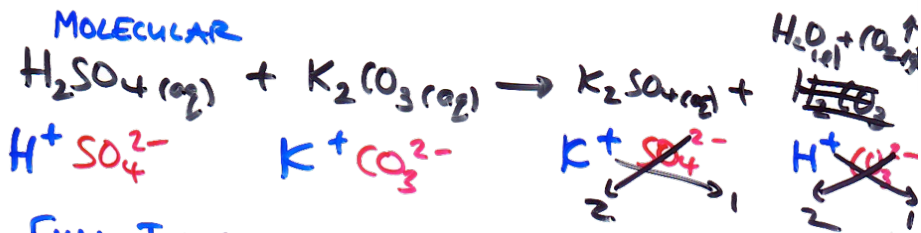


NET-IONIC

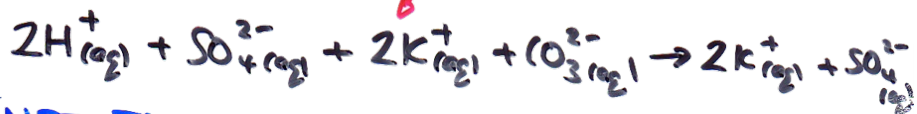


Carbonates CO_3^{2-}

MOLECULAR



FULL-IONIC



NET-IONIC

