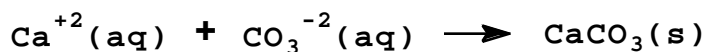


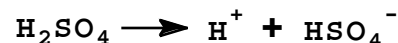
CHEMICAL REACTIONS

Precipitation reaction - reaction of two ionic substances to yield an insoluble solid.

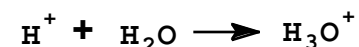
Solubility Rules



Acids in aqueous solution ionize to give hydrogen ions



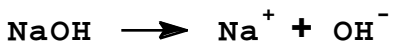
(hydrogen ions react with water to give hydronium ions).



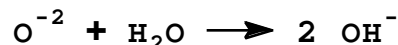
Oxides of non-metals react with water to form acids.



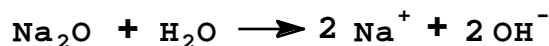
Bases in aqueous solution ionize to give hydroxide ions



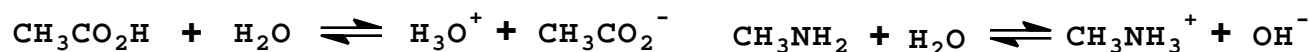
(oxide ions react with water to give hydroxide ions).



Oxides of metals react with water to form bases.

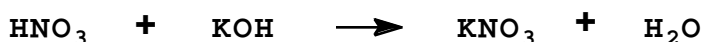


Weak acids and weak bases are ionized much less than 100%.



Neutralization reaction - reaction of an **acid** and a **base** to yield a **salt** and water.

Acids and Bases



Redox reaction - reaction where electrons are transferred, yielding different oxidation numbers for products and reactants.

A substance is oxidized when its oxidation number increases (it loses electrons).

A substance is reduced when its oxidation number decreases (it gains electrons).

Moles electrons lost must equal moles electrons gained.

Finding Oxidation Numbers

