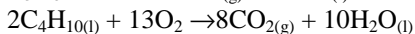
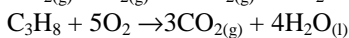
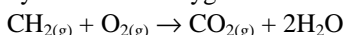


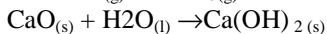
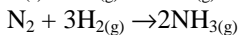
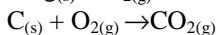
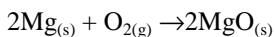
Chemistry AP: List of Reactions

Combustion of hydrocarbon

hydrocarbon + oxygen → carbon dioxide + water

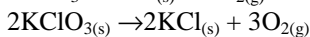
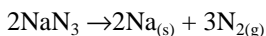
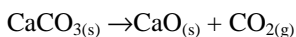


Combination

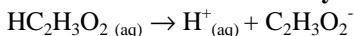


Decomposition

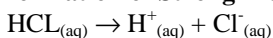
metal carbonate → metal oxide + carbon dioxide



Ionization of Weak Electrolyte

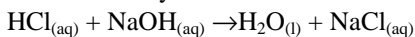


Ionization of Strong Electrolyte

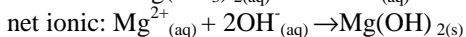
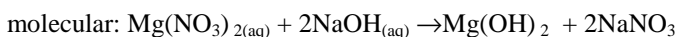
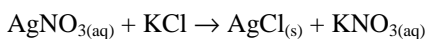
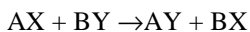


Neutralization

acid + metal hydroxide → water + salt



Metathesis Reactions

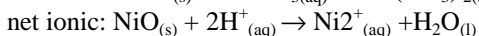
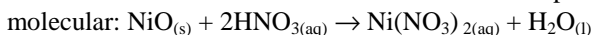


Formation of Weak Electrolyte or Nonelectrolyte

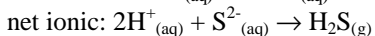
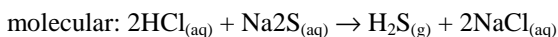
water-insoluble hydroxide:



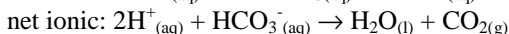
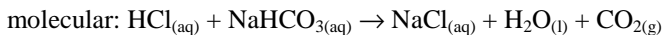
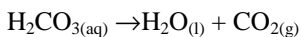
Insoluble metal oxides + acid → water + metal compound



Formation of Gas

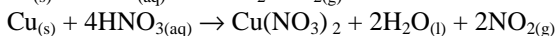
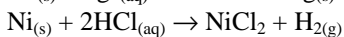
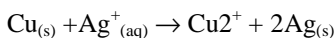
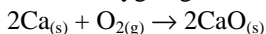


Carbonates and bicarbonates react to form carbon dioxide gas



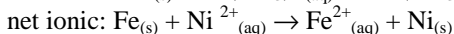
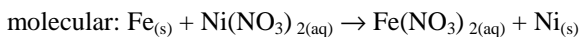
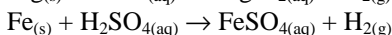
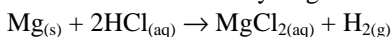
Oxidation and Reduction

metal + oxygen gas \rightarrow metal oxide



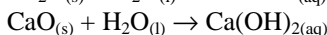
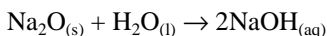
Oxidation of Metals By Acids and Salts

metal + acid \rightarrow salt + hydrogen

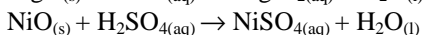
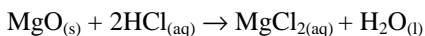


Metal Oxide (basic oxides)

Metal oxide + water \rightarrow metal hydroxide

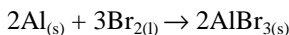


Metal oxide + acid \rightarrow salt + water

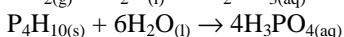
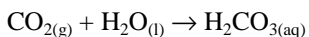


Nonmetals

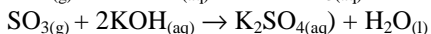
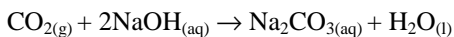
Metal + nonmetal \rightarrow salt



Nonmetal oxide + water \rightarrow acid

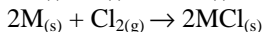
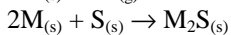
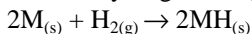


Nonmetal oxide + base \rightarrow salt + water

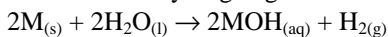


Alkali Metals (M = alkali metal)

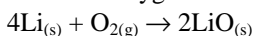
Metal + hydrogen \rightarrow hydrides



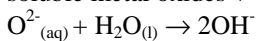
M + water \rightarrow hydrogen gas + alkali metal hydroxides



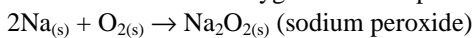
lithium + oxygen \rightarrow lithium oxide



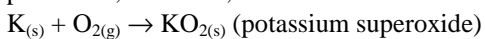
soluble metal oxides + water → hydroxide



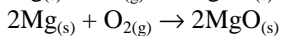
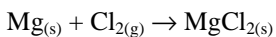
other alkali metals + oxygen → metal peroxide



potassium, rubidium, cesium

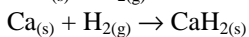
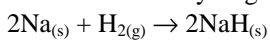


Alkaline Earth Metals

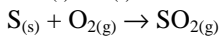
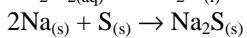
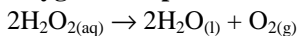


Hydrogen

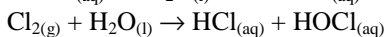
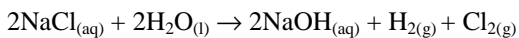
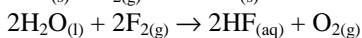
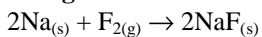
Active metals + hydrogen → solid metal hydride



Oxygen Group



Halogens



Hydrogen + halogen → hydrogen halide

