

Acid + Bases – An Intro

ACID – a compound, usually water-soluble, that releases hydrogen ions when in solution. An acid reacts with a base to form a salt, has a pH less than 7, and turns blue litmus red. Acids are corrosive and have a sour taste.

BASE – a chemical compound having a pH value between 8 and 14 that reacts with acids to form salts.

Strengths of Acids & Bases

Sugar + H₂O – non conductor

starch – non conductor

Sulfuric acid – conductor

CuSO₄ – conductor

KI – conductive

CH₃COCH₃ (acetone -aka propanone)

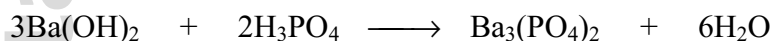
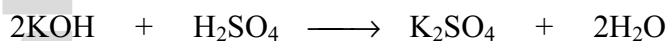
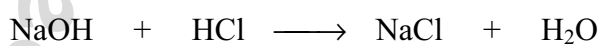
C₂H₅OH (ethanol) – non-conductor

Substances can be divided into two categories, electrolytes and non-electrolytes

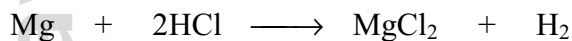
Electrolyte – a chemical compound that separates into ions in a solution or when molten and is able to conduct electricity

Non-electrolyte – a substance that does not ionize readily in solution or in the molten state and is therefore a bad conductor of electricity.

1. Acids will neutralize bases to form salt and water.



2. Any acid will react with a metal to form hydrogen gas.

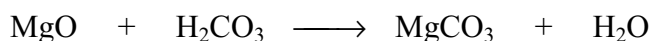
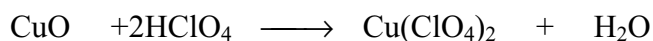


3. Any metal carbonate with any acid will always form carbon dioxide gas, water, and salt of the acid



Metal oxides basic in solutions, when mixed with acids form water and salt

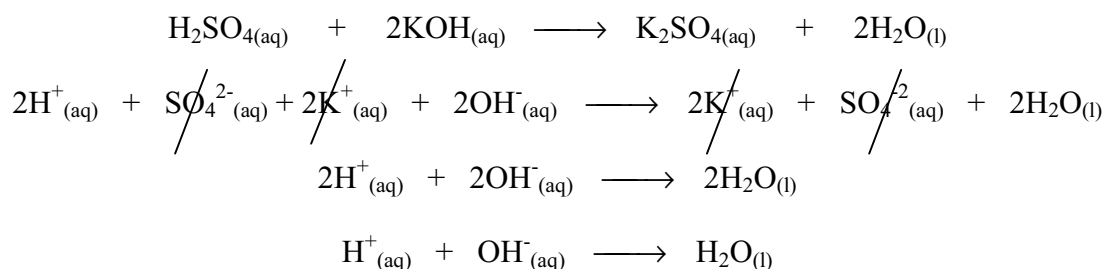
Non-metal oxides acidic in solution



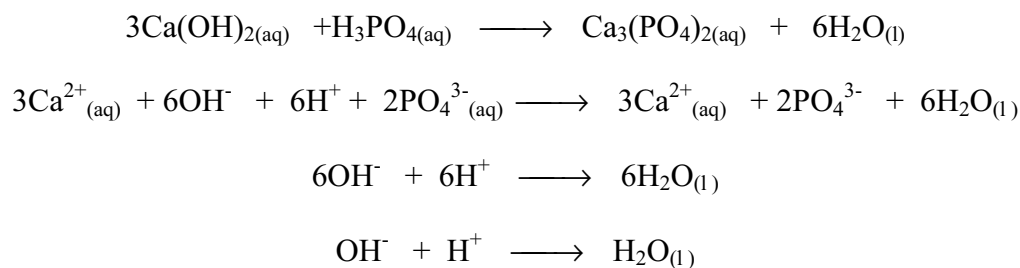
How to write ionic equations

1. Write a balanced molecular equation
2. Dissociate all the ions (**solids and liquids and gases do not dissociate**)
3. Cancel the spectator ion (ions that are the same at the beginning and at the end of the reaction, that is to say that they do not participate in the reaction)
4. Write the net ionic equation

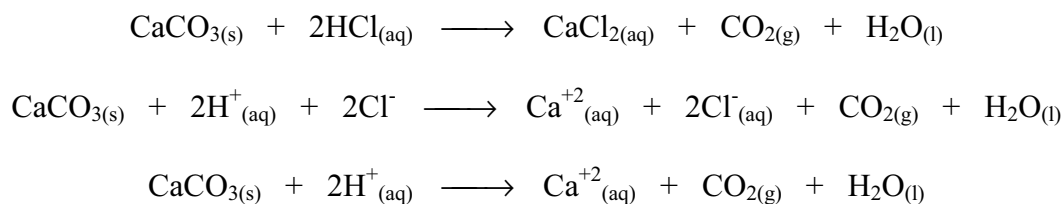
Acid + Base



2.



3.



4.

