



# Reaction in Aqueous Solution

whether will occur

① form solid: precipitation

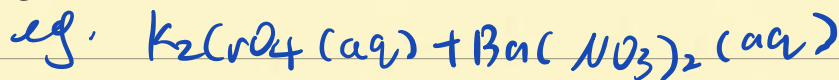
Also called precipitation reaction

**Strong electrolyte**: when ions dissolved in water.

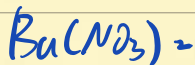
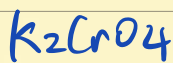
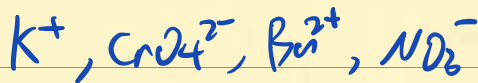
when ionic compound dissolved, the solution contains the separated ions

how to decide the product

guess



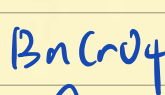
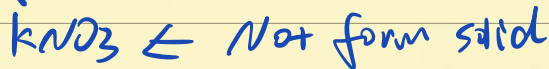
or



x

∴ reactant

or

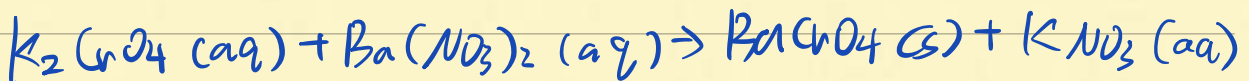


but still ions

↑

✓

↓ finally



1. +  $K^+$

1. +  $CrO_4^{2-}$



## Spectator ions

not in ionic form

ions which not participate in reaction.

## Net ionic equation.

Only include the component that directly involved in the reaction.



## Reaction which form Water.

Acids and Bases.

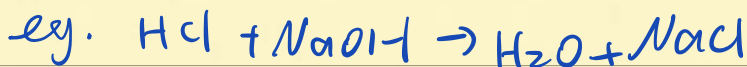
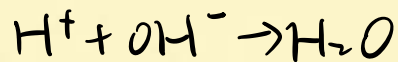
↑  
or alkalis

## Based

Substance produce hydroxide ions ( $\text{OH}^-$ ) in water.

## Acid + Based

Always form water.



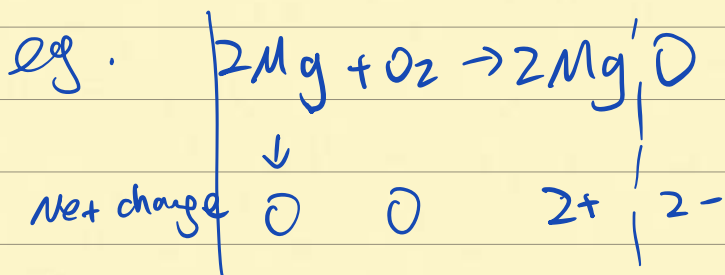
↑

Salt

## Reaction between metal and nonmetal

involve the transfer of one or more electrons from the metal to the nonmetal, form ionic compound

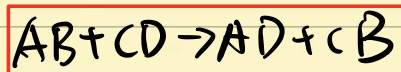
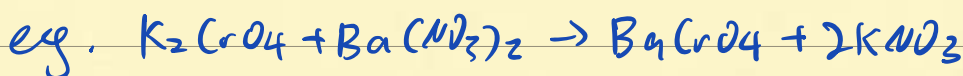
this property is called: Oxidation-Reduction reaction



## Kind of Reaction

### Double-displacement Reaction

Association Reversed.



### Acid Based reaction

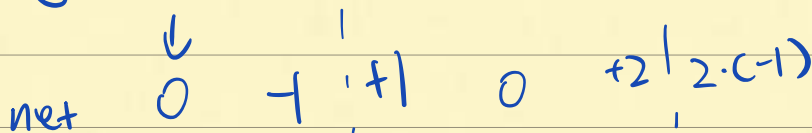
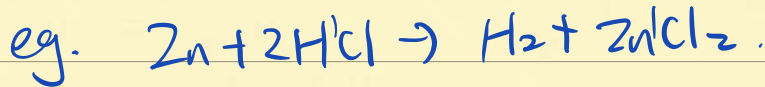
include  $\text{H}^+$  ions and end up with produce water.



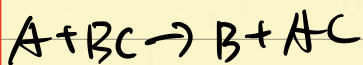
### Oxidation-Reduction Reaction.

process that electron transfer

- Not only metal + Non metal

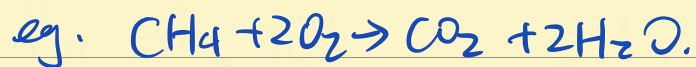


### Single Replacement Reaction

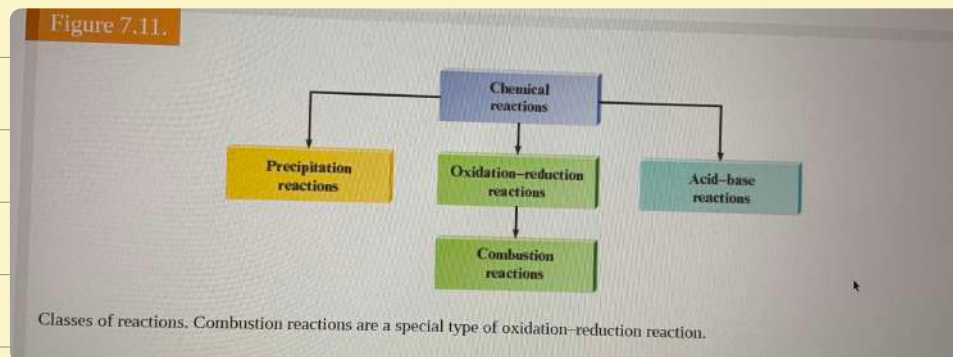


## Combustion Reaction

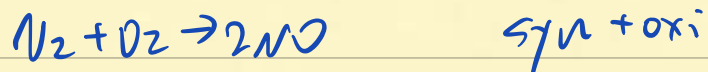
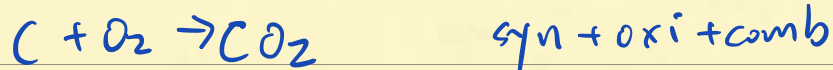
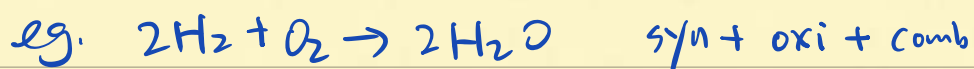
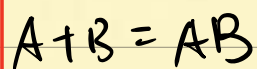
produce flame



Also oxidation - Reduction



## Synthesis / Combination Reaction.



## Decomposition Reaction.

