

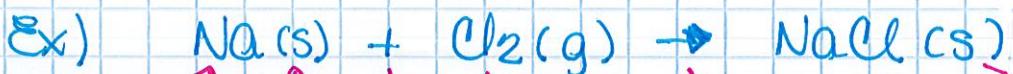
Chemical Reactions - chemical changes

1. Evidence of a reaction

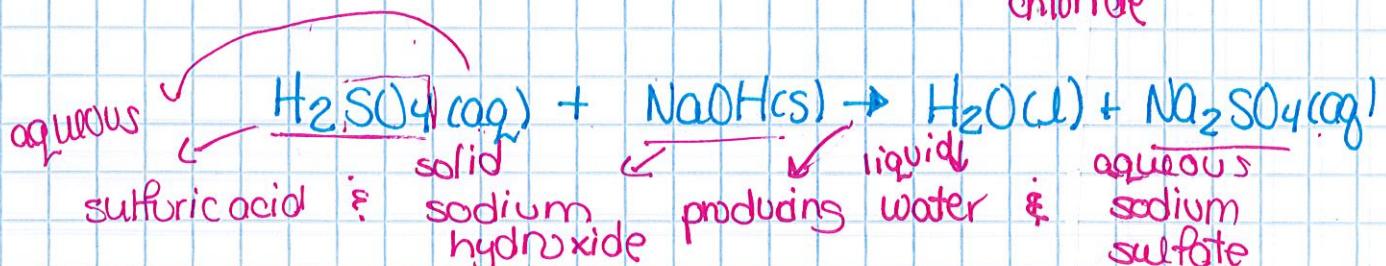
- A. forming a gas (bubbles)
- B. forming a precipitate (a solid)
- C. change in color
- D. change in odor
- E. change in energy (temperature increases or decreases)

2. Chemical Equations - short hand way of describing a chemical reactions

- A. reactants - starting substances
- B. products - new substances created in the reaction
- C. \rightarrow - yields or produces, separates reacts (on the left) from products (on the right)
 - D. (s) - solid
 - E. (l) - liquid
 - F. (g) - gas
 - G. (aq) - aqueous, substance is dissolved in water (in solution)



Sodium solid & chlorine gas producing sodium chloride



H. Diatomic Molecules - 7 elements always exist as 2 atoms bonded together unless they are in a compound



I Balancing Chemical Equations

i) Law of conservation of mass - mass cannot be created or destroyed during a chemical reaction

↓ means

You must have the same amount of atoms/ions of each element on both sides of a chemical equation.

↓

Use coefficients to do this.

#'s that go in front of a formula & multiply through every element in a formula.

Examples

