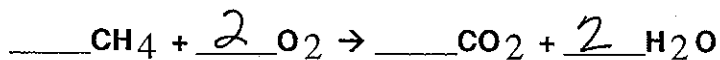


CHEMICAL REACTIONS REVIEW

Name Key
Period 1 2 3 4 5 6

1. Look at the following equation:



A. List the products. CO_2 and H_2O

B. List the reactants. CH_4 and O_2

C. Balance the equation.
see above

2. List and describe the four types of chemical reactions.

A. synthesis - two or more substances combine to make one substance

B. decomposition - one substance breaks down into 2 or more substances

C. single replacement - an element takes the place of another element in a compound

D. double replacement - 2 elements in 2 compounds trade places to form 2 new compounds

3. What are two differences between endothermic and exothermic reactions?

endo - absorbs energy, feels cold, energy written before arrow

exo - releases energy, feels warm, energy is written after arrow

4. Describe the four factors that affect the rate of a reaction.

Temperature: Temp \uparrow , rate \uparrow Temp \downarrow rate \downarrow

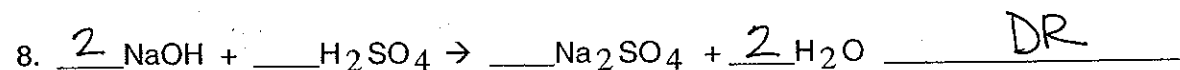
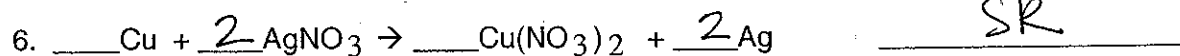
Concentration: Conc \uparrow rate \uparrow Conc \downarrow rate \downarrow

Surface area: Surface area \uparrow rate \uparrow SA \downarrow rate \downarrow

Using a catalyst increases rate, inhibitor decreases rate

Return!

For questions 5-8, balance the equations. Then, classify each as synthesis (S), decomposition (D), single replacement (SR), or double replacement (DR).



9. Look at the following equation:



A. Is this equation for an endothermic or exothermic reaction? Explain your answer.

exothermic - energy is released, written after the arrow

B. What type of reaction is this (S, D, SR, or DR)?

S

10. Explain how increased concentration affects reaction rate. Use complete ideas!

Increasing concentration means there are more particles and they are closer together. Therefore there would be more contact between the reactants, and the reaction would happen faster.

11. Vocabulary:

A. law of conservation of mass Mass remains constant during a chemical reaction - it is not created or destroyed

B. catalyst chemical added to a chemical reaction that speeds up the reaction but is not used up/changed during the reaction

C. inhibitor chemical added to a chemical reaction that slows down the reaction but is not used up or changed during the reaction