AP Chemistry-Chemical Reactions

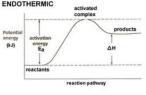
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1.

precipitate A solid that forms from a solution during a chemical reaction.



- 2. **double replace-** a chemical change that involves an exchange of positive ions between two compounds
- 3. metathesis reac- double displacement reaction tion
- 4. **combustion reaction** a chemical reaction that occurs when a substance reacts with oxygen, releasing energy in the form of heat and light
- 5. endothermic the system absorbs energy from its surroundings change



AgNO₃ + NaCI → AgCI + NaNO₃

+

→ **@**@+ **}**

- 6. exothermic change a change in which energy is released
- 7. **synthesis reaction** a reaction in which two or more substances combine to form a new compound
- 8. **decomposition** a reaction in which a single compound breaks down to form two or more simpler substances

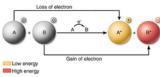
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9. acid-base reaction a reaction where an acid reacts with a base to produce water and a salt



- 10. **oxidation num**ber Positive or negative number that indicates how many electrons an atom has gained, lost, or shared to become stable
- 11. **oxidation-reduc-** a reaction that involves the transfer of electrons between reactants



- 12. **Oxidation** loss of electrons
- 13. **reduction** gain of electrons
- 14. **single replace-** a chemical change in which one element replaces a second element in a compound
- 15. **oxidation half reaction** That half of a redox reaction where loss of electrons takes place. In this half, the oxidation number of the reactant atoms increases.

 $Cu(s) ---> Cu^{2+} + 2e^{-1}$

16. **reduction half re-** the "half" of an oxidation-reduction reaction involving reaction duction; the half-reaction in which electrons appear as reactants; balanced when each atom type, as well as the charge, is balanced

 $2 \text{ Ag}^+(aq) + 2 e^- ----> 2 \text{ Ag}(s)$

- 17. **half-reaction** an equation showing either the oxidation or the reduction that takes place in a redox reaction
- 18. **neutralization re-** a reaction in which an acid and a base react in an aqueous solution to produce a salt and water
- 19. **Molarity** the number of moles of solute per liter of solution

	Molarity = $\frac{\text{moles of solute}}{\text{volume of solution (L)}}$
20. Solution Stoi- chiometry	A method of calculating the concentration of substances in a chemical reaction by measuring the volumes of solu- tions that react completely; sometimes called volumetric stoichiometry.
21. Solute	the substance that is dissolved $\overbrace{\overbrace{i}$
22. Solvent	the substance in which the solute dissolves
23. Solution	A mixture that forms when one substance dissolves an- other.
24. Titration	process in which a solution of known concentration is used to determine the concentration of another solution
25. titration curve	graph showing how the pH of a solution changes as acidit and basic solutions are added together $\int_{\frac{14}{V_{base}}}^{14}$
26. equivalence point	occurs when the moles of acid equal the moles of base in a solution $ \int_{\frac{14}{5}}^{\frac{14}{5}} \int_{\frac{1}{5}}^{\frac{14}{5}} \int_{\frac{1}{5}}^{\frac{14}{$

V_{base}

AP Chemistry-Chemical Reactions Study online at https://quizlet.com/_72p44k hydrogen ion (H+) a positively charged ion (H+) formed of a hydrogen atom that has lost its electron hydronium ion hydrogen ion combines with a water molecule to form a hydronium ion, H3O(+)