

Exam 1 Test Prep Vocab

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|-----------------------|------------------------|------------------|--------------------------|---------------------|--------------------|
| Equilibrium | Saturated Solution | Dissolution | Rate | Activation Energy | Molecularity |
| Solute | Unsaturated Solution | Solubility | Le Chatelier's Principle | Van't Hoff Factor | Catalyst |
| Solvent | Rate Law | Substrate | Equilibrium Constant | Elementary Step | Reaction Mechanism |
| Intermolecular Forces | Colligative Properties | Transition State | Rate-Determining Step | Reversible Reaction | Intermediate |

1. Elementary Step - Each step in a chemical reaction
2. Le Chatelier's Principle - If a system at equilibrium is disturbed, it will react in such a way as to counteract the disturbance and return to equilibrium
3. Activation Energy - Energy which a reacting species must have to form the transition state
4. Intermediate - A species that is formed and used up; will not appear in rate law
5. Molecularity - Number of molecules reacting in a step
6. Substrate - The substance which undergoes reaction
7. Rate - The speed of a reaction
8. Solute - The component that is dissolved in a solution
9. Transition State - (Activated complex) state corresponding to the highest energy along the reaction coordinate
10. Reversible Reaction - Reactions that can proceed in either direction
11. Saturated Solution - Maximum amount of solvent dissolved at a certain temperature
12. Colligative Properties - Solution properties that depend upon only quantity of solute
13. Rate-Determining - The slowest step in a reaction
14. Van't Hoff Factor - Ratio between the actual concentration of particles produced when the substance is dissolved and the concentration of a substance as calculated from its mass
15. Catalyst - a substance that speeds up the rate of the reaction without causing permanent change
16. Reaction Mechanism - Detailed sequence of reaction steps

17. Unsaturated Solution - Contains less than the optimal amount of solute
18. Equilibrium - State when forward and reverse reactions become equal
19. Solvent - The component of a solution that retains its original phase
20. Rate Law - The mathematical expression relating rate to concentration
21. Dissolution - The process of dissolving
22. Intermolecular - Forces between a solvent and a solute
23. Solubility - The maximum concentration that a solution can achieve with respect to a particular solute
24. Equilibrium Constant K , the value of the reaction quotient at equilibrium