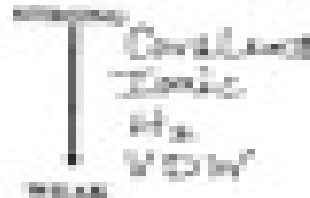


24. Draw a hierarchy of the types of bonds and interactions discussed in the lecture. Place them in order from the strongest to the weakest. Hydrogen bonds, van der Waals interactions, ionic bonds, covalent bonds.



25. Use absorption and extinction coefficients to explain why molecular shape is crucial in biology.

Optical density always divides by path length and molar absorptivity. Good on length because by binding to end receptors it changes the amount of light that can be absorbed.

26. Write the chemical balanced equation for photosynthesis. Label the reactants and the products.



27. For the equation you just wrote, how many molecules of carbon dioxide are there? 6
 How many molecules of glucose? 1 How many atoms in glucose? 24

28. What is meant by dynamic equilibrium? Does this imply equal concentrations of each reactant and product?

The point at which the reactions offset one another equally. Reactants combine but no net effect on conc. of reactants or products.