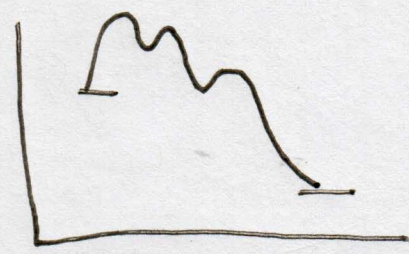
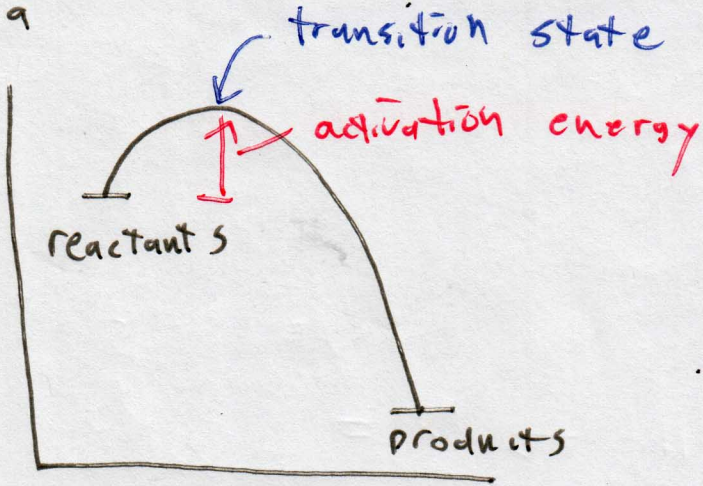
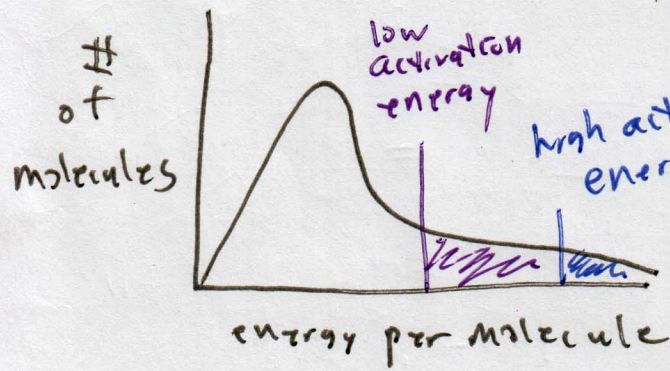


6/11/19

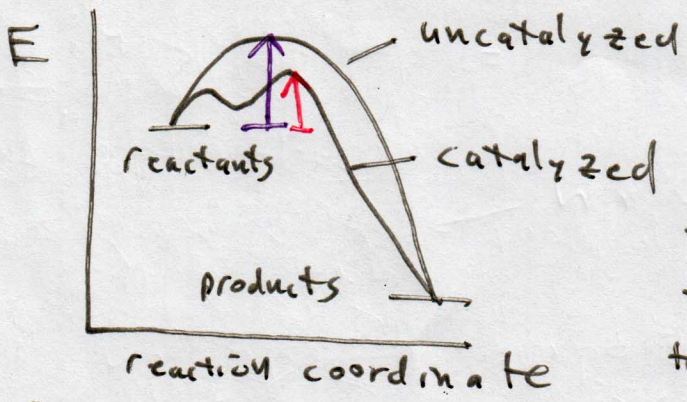


transition state - the highest energy point that occurs between reactants and products

activation energy - the energy needed to reach the transition state so that a reaction can occur.



When a reaction has a lower activation energy, the reaction occurs more quickly because more molecules will have the energy to reach the transition state.

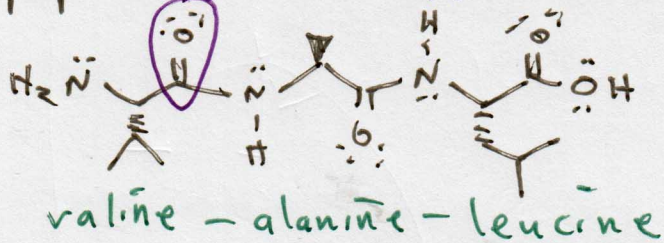


A catalyst speeds up a reaction by providing an alternate reaction pathway that has a lower activation energy which allows the reaction to occur more quickly

Catalysts do not change the amount of products form because a catalyst does not affect the total energy gained or released during a reaction.



tripeptide (Carbonyl) - a C=O double bond



valine - alanine - leucine

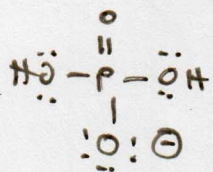
val-alu-leu

VAL

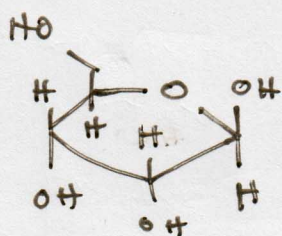
sequence - the order of amino acids in a polypeptide or protein. The sequence is listed from the amino end to the acid end.

## DNA + RNA

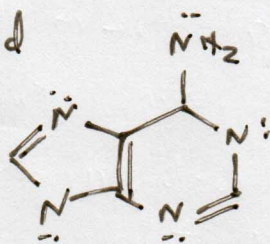
RNA - ribonucleic acid



dihydrogen phosphate

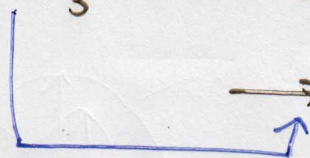
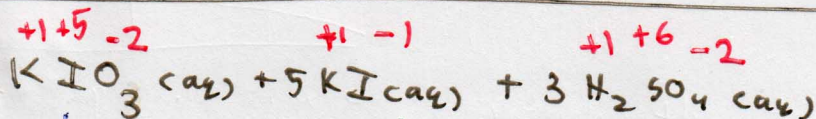


D-ribose



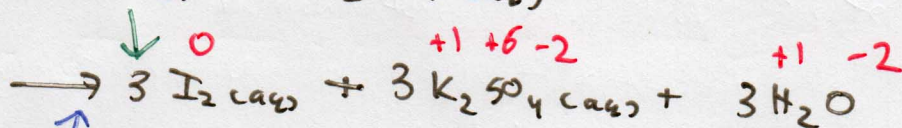
adenine  
(a nitrogen base)

Test #3



+5 → 0

I was reduced  
KIO<sub>3</sub> was the  
oxidizing agent



-1 → 0

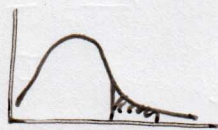
I was oxidized  
KI was the reducing  
agent



# Test #3

- determining oxidation states and oxidizers and reducers 8.1-8.2
- organic molecules
  - isomers - constitutional + stereoisomers 9.1
  - saturated + unsaturated 9.1
  - line structures
  - functional groups (all in text) 9.4
  - hydrocarbons
- water 14.1
  - unusual density
  - amphoteric
  - specific heat  $\Delta E = S \cdot M \cdot \Delta T$

- thermodynamics + kinetics
  - system + surroundings
  - exothermic + endothermic 15.2
    - $\Delta E < 0$
    - $\Delta E > 0$
  - bond energies
  - catalysts, activation energy, transition state, energy distribution diagram 15.3



- biological molecules
  - carbohydrates 16.2
    - monosaccharides + disaccharides
    - aldose + ketose
  - fats 16.3
    - fatty acids
    - triglyceride
  - proteins 16.4
    - amino acids
    - peptide linkage
    - sequence

