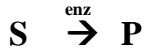
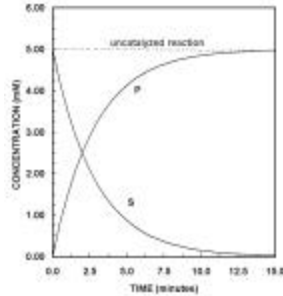




## CLASSIFICATION OF ENZYMES



1. Oxidoreductases
2. Transferases
3. Hydrolases
4. Lyases
5. Isomerases
6. Ligases




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## Reaction Rates versus Equilibria



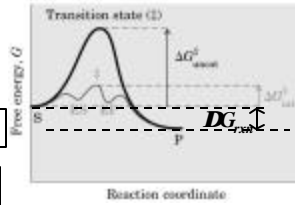
$$\text{Rate} = k[S]$$

k rate constant

$$\text{Rate} \propto 1/DG^\ddagger$$

$$K_{\text{eq}} = 10^{-DG_{\text{rxn}}/RT}$$

$$DG_{\text{rxn}} = DG_P - DG_R$$



$$k \text{ (s}^{-1}\text{)} = \frac{kT}{h} e^{-DG^\ddagger/RT}$$

k = Boltzmann constant  $1.381 \times 10^{-23}$  J/K  
 h = Planck's constant  $6.626 \times 10^{-34}$  J s

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