

LECTURE 34 KINETICS

I. Effect of Temperature on Reaction Rates

A. Gas-phase

1. Arrhenius equation

B. Activation energy, E_a

1. Using activation energy to predict a rate constant

C. Reaction Coordinate and the Activation Complex

1. Activated complex / transition state
2. Relationship between E_a and k
3. Relationship between ΔH and K
4. Rate constants and temperature
5. Equilibrium constants and temperature
6. Le Châtelier's Principle
7. Large E_a vs. small E_a