

Rate constants and temperature

Pre-lesson assignment- textbook page 289-291

Make notes on rate constants and the Arrhenius equation

Use the following questions as guidance

1. Give a list of factors that affect rate constant. Explain the effect of these on the gradient of a rate/concentration graph.
2. Give the Arrhenius equation
 - a. What is the Arrhenius equation?
 - b. What is represented by the exponential factor?
 - c. What is taken into account by the pre-exponential factor, and what is the limitation of treating this as a constant?
 - d. Define each term.
3. Give the logarithmic form of the Arrhenius equation.
 - a. Sketch the straight line graph given by arranging this equation in the form $y = mx + c$
 - b. Describe briefly how a plot of $\ln K$ vs $1/T$ can be used to calculate activation energy.