

CE 329 Fall 2015

Assignment 4

Problem Statement

At 34 °C a rate coefficient has a value of $8.39 \times 10^2 \text{ L mol}^{-1} \text{ s}^{-1}$ and obeys the Arrhenius expression.

(a) If the activation energy is 102 kJ mol^{-1} , what is the value of the rate coefficient at 50 °C?

(b) If the rate coefficient equals $1.68 \times 10^3 \text{ L mol}^{-1} \text{ s}^{-1}$ at 44 °C, what will it equal at 60 °C?