

Kinetic of the Hydrolysis of Urea – Part II

Open the file “Hydrolysis of Urea” which shows a plot of [urea] as a function of time. Determine the rate law for this reaction by linearizing the data. You may do this by creating a new calculated column or by copying and pasting the data into Excel. To view the data, select Insert: Table from the main menu. Using your results, answer the following questions:

What is the reaction’s rate constant and rate law?

What is the original concentration of urea?

What is the reaction’s half-life?

What is the expected rate of the reaction at $t = 10$ days?

How many days will it take for the [urea] to reach 0.050 M?

If the original concentration of urea is 5.0 M, how long will it take for the concentration to reach 0.10 M?