

Prelab Question – Experiment 1: Chemical Kinetics, Week 2

You have determined that the reaction of CV and hydroxide is first order in each reactant. Your stock solution of CV is 1.0×10^{-4} M and your stock solution of hydroxide is 0.10 M. In one of your trials you mixed 0.500 mL CV solution and 0.400 mL hydroxide, and made the total volume 3.000 mL with the addition of water. Your experimentally determined rate was found to be 4.06×10^{-8} M/s for this trial. What is the rate constant, k , for the reaction?