Protocol K4 - Oxalic Acid Oxidation

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In this assignment, the kinetics of chemical reactions are studied through two separate experiments.

In the first experiment, the redox reaction between oxalic acid and potassium permanganate is studied: After determining the absorption maximum of potassium permanganate, a series of solutions is produced and measured as a calibration for concentration of permanganate as a function of absorption. Finally, the change in permanganate-concentration is measured in-situ, both with and without a catalyst, in order to determine the reaction order.

In the second experiment, the acid-base reaction between phenolphthalein and sodium hydroxide is studied. The absorption of the reaction mixture is also measured in-situ and the reaction order regarding phenolphthalein determined.