

Introduction In this practical work, we focus on the determination of the unknown concentration of oxalic acid ($\text{H}_2\text{C}_2\text{O}_4$) through a redox titration process. The principle underlying this experiment hinges on a redox reaction, where transfer of electrons occurs between oxidizing and reducing agents. Specifically, oxidation involves electron loss, while reduction pertains to electron gain. By employing potassium permanganate (KMnO_4) as the titrant, and using the titration method without an external indicator due to the self-indicating nature of KMnO_4 , we aim to identify the precise point of reaction through a color change. This practical exercise is crucial for understanding redox processes and their applications in analytical chemistry.