Redox Titration

CHMG145 Section 10

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Date of Analysis: October 30, 2020

Mass of $Na_2C_2O_4$: 0.985g

Trials	Initial Volume(mL)	Final Volume(mL)	Delta Volume(mL)	$KMnO_4$ (M)
1	3	13.5	10.5	0.02801
2	14	24.3	10.3	0.02860
3	25	35.7	10.7	0.02748

Average Molarity of $KMnO_4$: 0.02803 (M)

Standard Deviation : 0.00046 (M)

%RSD : 1.641%

For this lab, the molarity of the titrant was attained. In this case, the titrant was $KMnO_4$. This was achieved by titration. To begin, 10 mL of the standard was placed in a small Erlenmeyer flask. The standard consisted of 1 gram of Sodium Oxalate and 50mL of Sulfuric Acid with ~50mL of distilled water. From there, approximately 10mL of Potassium Permanganate was titrated with the standard until the solution turned a faint pink color. Once the delta volume was attained, the grams of Sodium Oxalate and delta volume were used to find the molarity of the Potassium Permanganate. This value was averaged through three trials.