

Oxidation–Reduction Titration

Data Tables

Part 1

 Molarity of Fe^{2+} _____ M

	Trial 1	Trial 2	Trial 3
Volume of Fe^{2+} solution titrated	mL	mL	mL
Initial volume of MnO_4^- solution	mL	mL	mL
Final volume of MnO_4^- solution	mL	mL	mL
Volume of MnO_4^- added	mL	mL	mL

Part 2

 Molarity of MnO_4^- solution _____ M

	Trial 1	Trial 2
Volume of $\text{H}_2\text{C}_2\text{O}_4$ solution titrated	mL	mL
Initial volume of MnO_4^- solution	mL	mL
Final volume of MnO_4^- solution	mL	mL
Volume of MnO_4^- added	mL	mL

 Molarity of $\text{H}_2\text{C}_2\text{O}_4$ solution _____ M

Post-Lab Calculations

- From the Part 1 standardization data, calculate the molarity of the MnO_4^- solution for each trial. Average the values and enter the average in the Part 2 Data Table.
- From the Part 2 titration data, calculate the molarity of the $\text{H}_2\text{C}_2\text{O}_4$ solution for each trial. Average the values and enter the average in the Part 2 Data Table.
- How many moles of Fe^{2+} ions and MnO_4^- ions were titrated in each Part 1 trial?
- How many moles of oxalic acid, $\text{H}_2\text{C}_2\text{O}_4$ were titrated in each Part 2 trial?