

CONTENTS

Experiment 1

The Rate Law

Experiment 2

The Equilibrium Constant

Experiment 3

Equilibrium Games

Experiment 4

The Effect of Concentration Changes on Equilibrium Systems

Experiment 5

Acid and Base Strength

Experiment 6

A Study of an Acid Ionization Equilibrium

Experiment 7

pH of Acid, Base and Salt Solutions (Part I & Part II)

Experiment 8

Buffers

Experiment 9B

Standardization of a NaOH solution with a Primary Standard

Experiment 10

Evaluation of Data by the Standard Deviation Method

Experiment 11

The Molar Mass of a Weak Diprotic Acid

Experiment 12

A Solubility Product Constant

Experiment 13

Qualitative Analysis

Experiment 14

Determination of Iron by Permanganate Titration

Appendix A

Significant Figures in Calculations

Appendix B

Mistakes, Errors, Accuracy, and Precision