LABORATORY EXERCISES IN PHYSICAL CHEMISTRY

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FREDERICK H. GETMAN

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IN

PHYSICAL CHEMISTRY.

BY

FREDERICK H. GETMAN, PH.D.,

Fellow by Courtesy of The Johns Hopkins University,
Carnegie Research Assistant.

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PREFACE.

With the growth of a new science between physics and chemistry there has arisen need for a new type of laboratory manual. This need has been met by two books—Ostwald's "Physiko-Chemische Messungen" and Traube's "Physikalisch-Chemische Methode." Notwithstanding the excellence of these books they have not proven themselves practical guides in the laboratory, owing to too great detail and too many references to the literature. With the wish to prepare a manual which may be placed in the hands of the student of physical chemistry, the author has written this book. He would state at the outset that he in no way considers this as an effort to rival either of the above books, which for long must remain the standard works of reference on physico-chemical measurements. The effort has been made to select only such exercises as are typical, and where several different methods exist for the measurement of the same quantity, only in rare instances has more than one been given. In a word, the book has been made as condensed as possible in order not to discourage the student with too many methods.

It has been thought advisable to include several exercises which are usually studied in physics, but these may be omitted if the student has already had sufficient practice with them.

For the convenience of the student there are appended tables of various physical constants which may be of service in the laboratory.

For the kind assistance given by friends the author would acknowledge his thanks, and especially to Prof. W. O. Atwater, who has so generously placed at his disposal the material for the section dealing with the determination of heats of combustion. To Messrs. P. Blakiston's Son & Co. I would express my thanks for permission to use several illustrations from Traube's "Physico-Chemical Methods."

If this book finds a place for itself in the hands of the student beginning the study of physical chemistry and proves to be of real service to him, it will have accomplished all that the author might wish.

FREDERICK H. GETMAN.

BALTIMORE, MD., April, 1904.

TABLE OF CONTENTS.

INTRODUCTORY MEASUREMENTS.

CHAPTER I.

PAGE

WEIGHING 1

Care of the Balance. Weighing by Vibrations. Sensitiveness of a Balance. Inequality of the Arms of the Balance. Reduction of Weighing to Vacuo. Calibration of a Set of Weights.

CHAPTER II.

VOLUME AND DENSITY 13

Apparatus for Measuring Volumes. Calibration of Measuring-flasks. Calibration of Burettes. Calibration of a Eudiometer. Density (Specific Gravity). Density of Solids. Density of Liquids. Density of Gases (Vapor Density). Method of Victor Meyer (Air Displacement). Carrying out a Determination.

CHAPTER III.

VISCOSITY AND SURFACE-TENSION 31

Flow of Fluid through a Long Tube. Measurement of the Coefficient of Viscosity. Surface-tension. Measurement of Surface-tension.

CHAPTER IV.

SOLUBILITY 45

Determination of Solubility.

THERMAL MEASUREMENTS.

CHAPTER V.

PAGE

THERMOMETRY. 50

The Mercury Thermometer. Comparison of a Thermometer with a Standard Thermometer. Calibration by Means of a Series of Fixed Temperatures. Correction for Unheated Stem. The Fixed Points of a Thermometer. Expansion. Determination of the Coefficient of Cubical Expansion of Glass and Liquids. Molecular Volumes of Liquids at their Boiling-points.

CHAPTER VI.

MELTING- AND BOILING-POINTS. 61

Melting-point. Boiling-point. Depression of the Freezing-points of Solvents by Dissolved Substances. Apparatus and Method. Dissociation by the Freezing-point Method. Elevation of the Boiling-points of Solvents by Dissolved Substances. Apparatus and Method.

CHAPTER VII.

CALORIMETRY. 77

Quantity of Heat. Specific Heat. Determination of the Specific Heat of Solids. Heating Vessel. The Calorimeter. Method of Operation. Loss of Heat by Radiation. Loss of Heat to Calorimeter. Loss of Heat to Stirrer. Loss of Heat to the Thermometer. Determination of the Specific Heat of Liquids. Heat of Fusion. Heat of Vaporization. Thermochemistry. Heat of Neutralization. Heat of Solution. Heat of Hydration. Heat of Dilution. Heat of Combustion. Heat of Formation.

OPTICAL MEASUREMENTS.

CHAPTER VIII.

THE SPECTROSCOPE. 123

Adjustment of the Spectroscope. Reduction of Scale Readings to Wave-lengths. Absorption Spectra. Spectro-

PAGE

photometry. Apparatus. Method of Operation. Refractive Indices. Pulfrich Refractometer. Abbé Refractometer. Refraction Constants. The Polarimeter. Laurent Polarimeter. Lippich Polarimeter. Lamp for Homogeneous Light. Observing Tubes. Specific Rotation. Molecular Rotation. Rotation Dispersion.

ELECTRICAL MEASUREMENTS.

CHAPTER IX.

ELECTRICAL UNITS..... 152
Sources of Current.

CHAPTER X.

RESISTANCE (CONDUCTIVITY)..... 157
Specific and Molecular Conductivity. Resistance Boxes. Wheatstone's Bridge. Calibration of the Bridge-wire. Conductivity Cells. Inductorium and Telephone. Resistance Capacity of the Cell. Carrying out a Measurement. Pure Water. Equivalent Conductivity. Degree of Dissociation. The Dissociation Constant. The Basicity of Acids. Solubility by the Conductivity Method.

CHAPTER XI.

ELECTROMOTIVE FORCE..... 181
Clark Standard Cell. Preparation of Materials. Temperature Coefficient. Weston Standard Cell. Helmholtz One-volt Cell. Lippmann Electrometer. The Measurement of Electromotive Force. Potential Differences. Normal Electrodes. Calibration of a Voltmeter.

CHAPTER XII.

MEASUREMENT OF CURRENT..... 199
The Silver Voltameter. Copper Voltameter. The Titration Voltameter.

CHAPTER XIII.

MEASUREMENT OF THE DIELECTRIC CONSTANT..... 205
Apparatus. Carrying out a Determination.

DYNAMICAL MEASUREMENTS.

CHAPTER XIV.

PAGE

CHEMICAL KINETICS. 212

Reaction of the First Order. Inversion of Cane-sugar. Catalysis of Methyl Acetate. Reaction of the Second Order. Saponification of Ethyl Acetate.

TABLES. 219

Reduction to Vacuum of Weighings made with Brass Weights in Air Density (Solids, Liquids, Gases). Density of Water. Volume of Water from 0° to 31°. Surface-tension of Liquids in Contact with Air. Viscosity of Liquids. Reduction of Gas Volumes to 0° and 760 mm. Reduction of Barometer Readings to 0°. Reduction of Mercury-in-Glass Thermometer Reading to the Normal Hydrogen Scale. Capillary Depression of Mercury. Vapor-pressure of Water. Vapor-pressure of Mercury. Table for Conversion of Thermometer Readings. Specific Heats, Heats of Fusion, and Melting-points of the Elements. Coefficients of Expansion, Specific Heats, Melting-points, and Boiling-points of Liquids. Boiling Temperatures of Water at Different Barometric Pressures. Correction for Temperature of Mercury in Thermometer Stem. Wave-lengths of Lines of Solar Spectrum in Air at 18°. Table for Wheatstone's Bridge. Table of International Atomic Weights. Table of Logarithms.