Foreword to First Edition

Microchemistry during the past thirty years in the United States has been developing at an ever-increasing pace. Only a few years ago every microanalyst or teacher of microchemistry either had been a student of or had been influenced by such leaders as Emich or Pregl in this new field of analytical chemistry. This is no longer true. Today we find microchemical laboratories or microchemical methods employed in some manner in almost every chemical industry. It is not strange then that many of the chemists using microchemical methods have had but little and often no training in microchemistry. These people must rely upon a good text for an understanding of microchemical techniques and procedures. This book, because of its simplicity of style and its attention to minute manipulative details, will prove to be of immeasurable help to the beginning microanalyst. The procedures and the directions not only are easy to follow but also are described in such a way as to inspire confidence. The reader soon learns that the procedures are not the results of extensive library work but have been proved by constant use in the author's own microchemical laboratory. The author has spared no effort to aid the beginner. Typical is the chapter on the microbalance which in addition to describing balance construction gives the practical details of cleaning and maintaining the balance and complete instructions for making a micro weighing. This, as in other procedures throughout the book, is explained through the use of carefully chosen examples.

Dr. Steyermark has in no way limited this book to the beginner. Instead, it will be of great value to the trained microanalyst for the procedures are those of the American school of microchemistry which, while based upon the techniques of Pregl, have been modified in typical American fashion.

The methods which are included in the chapters on elemental and group analyses recognize and use mechanized equipment, the apparatus recommended by the Committee for the Standardization of Microchemical Apparatus and methods which have been adopted by the Association of Official Agricultural Chemists. Of particular importance to the research microchemists is the extensive and up-to-date bibliography.

Dr. Steyermark has been well prepared for this task for in addition to supervising one of the largest microchemical laboratories in America he has served as chairman of the American Chemical Society's Committee for the Standardization of Microchemical Apparatus and as an Associate Referee of the Association of Official Agricultural Chemists for the standardization of microchemical methods.

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