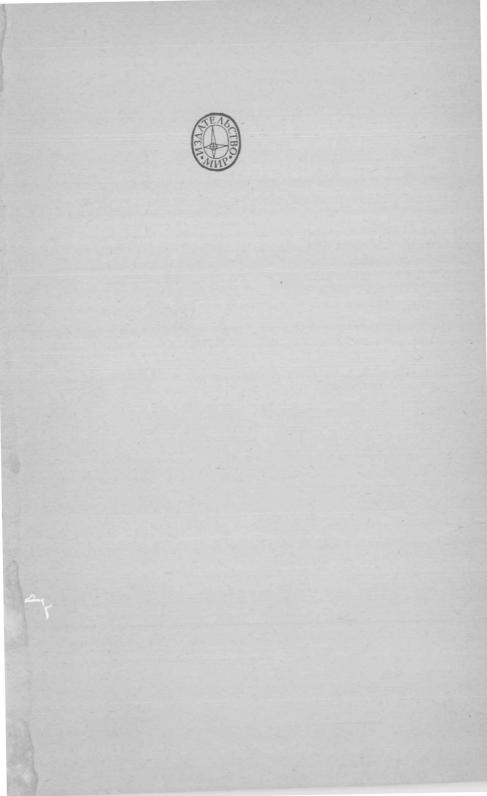
Lecture Experiments in Analytical Chemistry

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ДЕМОНСТРАЦИОННЫЙ ЭКСПЕРИМЕНТ ПО ОБЩЕМУ КУРСУ АНАЛИТИЧЕСКОЙ ХИМИИ

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The demonstrative experiment is part and parcel of a modern lecture on chemistry. The success of a lecture depends to a certain extent on the correct selection and timely conduction of an experiment or on a demonstration of slides and tables. This textbook is the first attempt of its kind in generalizing the experience gained in the demonstrative experiment at lectures on analytical chemistry. It is based on the experience of the department of analytical chemistry of the Lomonosov Moscow State University. Moreover, demonstrations found in the textbooks of general chemistry that conform to the specificity of

analytical chemistry are used.

Attention is mainly devoted to the correctness and experidency of selecting an experiment and to its place in the general layout of a lecture, since the purpose of an experiment is to make the material being studied more convincing. The authors have classified the experiments according to the principal sections of the theory of analytical chemistry adopted in the programme for universities. Recommendations concerning the make-up of introductory lectures on qualitative and quantitative analysis have been separated into special chapters. The description of experiments is preceded by a brief general part dealing with the essence of an experiment and the chemism of the phenomena being observed. Due to the diversity of the questions dealt with in the book, the material is expounded somewhat schematically in some cases.

The textbook has ample table material, which may be used for preparing slides. The values of stability constants of complex compounds and the values of solubility products have been taken from the handbook by L. G. Sillen

16 PREFACE

and A. E. Martell, Stability Constants of Metal-Ion Complexes, the Chemical Society, V. 1. London, Burlington

House, 1964. Supplement No. 1, 1971.

Attention is particularly devoted to the equipment of the auditorium where lectures on chemistry are read, and advice is given on the make-up of a lecture. Due to technical difficulties, it is possibly not everywhere that some recommendation may be fulfilled. The textbook gives a considerably greater number of experiments than the lecture time allows, and the lecturer has a choice.

The authors express their gratitude to the workers of the department of analytical chemistry of the Moscow State University Prof. V. M. Peshkova, D. Sc. (Chem.), and Prof. P. K. Agasyan, D. Sc. (Chem.), for the valuable advice which they gave on reading the manuscript. We would also be grateful to all readers for their remarks, suggestions and addenda concerning the conduction of a chemical experiment at lectures on analytical chemistry.

Authors