

CHANGES IN THE BY-LAWS

Article I. Membership

Section 1. . . . Any person or corporation interested in mineralogy, crystallography, *petrography*, or allied sciences, shall be eligible to membership.

Section 2. Election. (a) Fellows . . .

(b) Members. *Candidates for membership in the Mineralogical Society of America should be endorsed by at least one fellow of the society and the application approved by either the secretary or treasurer acting for the Council.*

Article II. Dues

Section 1. . . . *The annual dues for fellows of the Mineralogical Society of America who also pay dues as fellows of the Geological Society of America shall be two dollars (\$2), payable at or before the annual meeting in advance. This provision shall continue in effect as long as the Geological Society of America shall contribute funds which the Council of the Mineralogical Society of American shall consider adequate to assist in publication of the Journal of the Mineralogical Society of America.*

Article V. Publications.

The Society shall publish a journal devoted to the advancement of mineralogy, crystallography, *petrography*, and allied sciences.

BOOK REVIEWS

CRYSTAL CHEMISTRY by CHARLES W. STILLWELL. vii+424 pp., 127 Tables, 72 Figures and a chart. McGraw-Hill Book Company, New York, 1938. Price \$4.50.

This book is primarily intended for students of chemistry but it contains so much of interest to mineralogists and crystallographers that it seems proper to bring it to the attention of the readers of this journal.

Though lacking the balance and charm of Evans' "An introduction to crystal chemistry," recently reviewed here (vol. 24, p. 657), it has many good points. Its scope is indicated by the statement in the preface that "Crystal chemistry is the study of (1) the laws governing the arrangement of atoms in solids and (2) the influence of the arrangement and the electronic structure of the atoms upon the physical and chemical properties of the solid." Data illustrating both of these points are well summarized in numerous tables which form a very attractive feature of the book.

Since students interested mostly in the results may get their notions of the methods of crystal structure determination from this book, it is unfortunate that it propagates the false idea that structures may be determined by measurements of interplanar spacings, witness the following quotation from the first chapter: "When the distances between many sets of intersecting planes have been calculated, the position of each atom in the crystal becomes known."

A. PABST

SPECTROCHIMICA ACTA, ein Forschungsarchiv. Published by Julius Springer, Berlin. Vol. I, No. 1, May 1939, 92 pages, R.M. 8.60.

This new journal is the first devoted to the field of spectrochemical analysis. The method of qualitative and quantitative analysis by the spectrograph is based on the discovery, in 1860, by Kirchhoff, that each atom emits a characteristic spectrum by which its presence may be recognized. For many years this principle found little practical application, but recent developments in spectroscopic light sources and in photographic photometry have enabled spectrochemical analysis to compete with or to replace ordinary chemical methods in an increasing variety of applications.

This development has resulted in a large increase in the literature devoted to the subject. Meggers and Scribner in their Index to Literature in Spectrochemical Analysis (Am. Soc. for Testing Materials, Phila. 1939), list an average of 10.5 papers a year in the years 1920-25; for the years 1932-37 the output of papers on the subject had grown to an average of 107 papers a year. Examination of this index shows that the papers are scattered through a wide range of biological, chemical, physical, mineralogical, and metallurgical journals. Since few libraries receive all these journals and no single abstract journal covers all this literature, the individual worker can hardly be expected to find it all. In a new and growing field where methods are rapidly changing and procedures being improved, and where no general technique has been established, there seems to be a need for a journal of international scope to publish articles covering the applications of spectroscopy in different branches of sciences, and to provide reviews and abstracts covering the entire field.

Spectrochimica Acta is intended to meet this need. The Editorial Board consists of Professor R. Breckpot of the University of Louvain, Belgium; Dr. A. Gatterer of the Vatican Observatory, Italy; Professors W. Gerlach and G. Scheibe of Munich, Germany; and Mr. F. Twyman, Managing Director of Adam Hilger, London, England, France, Germany, Italy and the United States. The Editorial Board is made up of leaders in spectrochemical analysis and covers the countries in which most of the recent work has been done, with the exception of Japan and the U. S. S. R., in both of which there has been considerable recent activity.

The first number includes, besides book reviews and abstracts in English and German, articles in English by J. A. C. McClelland and H. K. Whalley on "The Quantitative Spectrochemical Analysis of Solder, Spelter, Magnesium and Aluminum Alloys"; and in German by H. Kaiser on observations on "Changes in Sparking Conditions during Analysis of Aluminum Alloys"; by A. Gatterer and J. Junkes on "The Quantitative Determination of Very Small Amounts of Europium in Samarium"; by G. Scheibe and J. Martin on "A New Application of Emission Spectroscopy to local Micro-analysis"; and by R. Rollwagen on "Physical Phenomena of Arc Discharges and their Significance for Spectro-analytical Investigations." These first articles set a high standard. It is to be hoped, however, that succeeding issues will discuss applications of spectrochemical analysis to other than metallurgical problems.

Spectrochimica Acta is to appear at irregular intervals as articles accumulate. Present conditions in Europe will doubtless hamper the production and circulation of the journal. The journal seems to fill a real need and it is to be hoped that it will not be a victim of war conditions or of its rather high price.

RALPH A. SAWYER, *Univ. of Michigan*