graphic distribution given, and significant features noted. Wherever several species are reported on a single host genus, a key is given. Many new species, with Latin descriptions, are recorded, as are a number of new combinations. Separate and complete indexes by host and by *Cercospora* species conclude the book. This important treatise, which has been prepared with exceptional care, should be a part of the working library of all plant pathologists and mycologists.

A. W. DIMOCK
New York State College of Agriculture

The Collected Papers of Peter J. W. Debye. Interscience, New York–London, 1954. xxi + 700 pp. Illus. $9.50.

Debye's classical papers are scattered among many journals covering a period of almost 50 years. The collection in a single volume of 51 of his papers, selected by Debye himself, is an important and welcome addition to the literature of science.

It is almost impossible for present-day natural scientists to be unaware of Debye's work; his theories are included in standard books on many phases of physics and chemistry. An acquaintance with these theories is greatly enriched by reading the original papers. Debye's treatment of a problem, from its historical background to its final solution, displays the refreshing clarity familiar to those who have heard his lectures. Through reading the original papers, one gains an appreciation of Debye's unique ingenuity and resourcefulness in attacking problems where methods more conventional than his had failed.

The book is divided into several sections. The division on "X-ray scattering" contains 11 papers, including the Debye-Scherrer treatment of scattering from crystal powders. The seven papers under "Dipole moments" contain the theories that relate molecular structure and intermolecular forces to the basic electric properties of the molecules. Under the heading "Electrolytes" are 11 papers that develop the famous Debye-Hueckel theory and some of its consequences.

The section on "Light scattering" consists of papers on the development and application of the technique that, in the last 10 years, has probably become the most useful method for obtaining absolute values of molecular weights and dimensions of macromolecules. Somewhat unexpectedly, papers on hydrodynamic properties of polymers and on reaction rates in ionic solutions are also included in this section.

Among the 10 articles in the "Miscellaneous" group are the well-known papers on the specific heats of crystals and on the possibility of reaching very low temperatures by adiabatic demagnetization. These sections also contain two papers that, as technical reports to the Rubber Reserve Company, were hitherto relatively inaccessible: one on the angular dissymmetry of light scattering, the other on the determination of molecular weights by the application of inhomogeneous electric fields.

An introductory section includes a biographic sketch by R. M. Fuoss, followed by brief introductions to the various sections by H. Mark, C. P. Smyth, and R. M. Fuoss.

Papers originally published in Dutch or German have been translated into English and were reproduced from typescript. Those papers originally in English were reproduced directly from the journals in which they appeared. Typographically, this volume is adequate; the translation is almost flawless. In the very few places where I found the translation awkward, the type uneven, or oversights in proofreading, the meaning of the text was never affected and the clarity never obscured.

The Collected Papers of Peter J. W. Debye is highly recommended to the serious student, the teacher, and the research worker interested in gaining an insight into the workings of nature on the molecular level. It is probably no exaggeration to state that these papers have stimulated, directly or indirectly, the greater part of modern research on molecular structure and interactions. Contained in this convenient collection, Debye's papers will be readily available to inspire additional exploration.

ULRICH P. STRAUSS
School of Chemistry, Rutgers University

Dynamics of Growth Processes. L. M. Kozloff *et al.* Edgar J. Boell, Ed. Princeton Univ. Press, Princeton, N.J., 1954. vii + 304 pp. Illus. + plates. $7.50.

The Society for the Study of Development and Growth organizes annual symposiums in its field of interest. The 11th Growth Symposium was held in June 1952 at Williams College, in cooperation with the Committee on Developmental Biology of the National Research Council. This volume presents the papers given at that meeting on the subject of dynamics of growth processes. It will be recalled that the earlier symposiums of this series appeared as supplements in the journal *Growth,* and the continuity of the present volume with these earlier publications is especially emphasized by E. J. Boell in his foreword.

The extraordinarily wide range in the scope of the 13 papers that constitute this volume makes the reviewer's task rather difficult. The symposium deals with growth phenomena in viruses (L. M. Kozloff), bacteria (A. Novick and L. Szilard), the cytochemistry of protein synthesis (A. W. Pollister), interactions between nucleus and cytoplasm during growth (G. Fankhauser), differentiation in relation to growth among animals (K. R. Porter) and plants (D. S. Van Fleet), the physical (F. W. Went) and chemical (F. Skoog) regulation of growth in plants, the chemical control of growth in animals (R. Gaunt), the relationship between skeletal growth and development in children (W. W. Greulich), growth rhythms and allometry (D. A. Sholl), hereditary mechanisms in animal growth (G. E. Dickerson), and the mathematical aspects of population growth (F. E. Smith).

Since all the contributors are eminent authorities in their respective fields, the volume undoubtedly rep-