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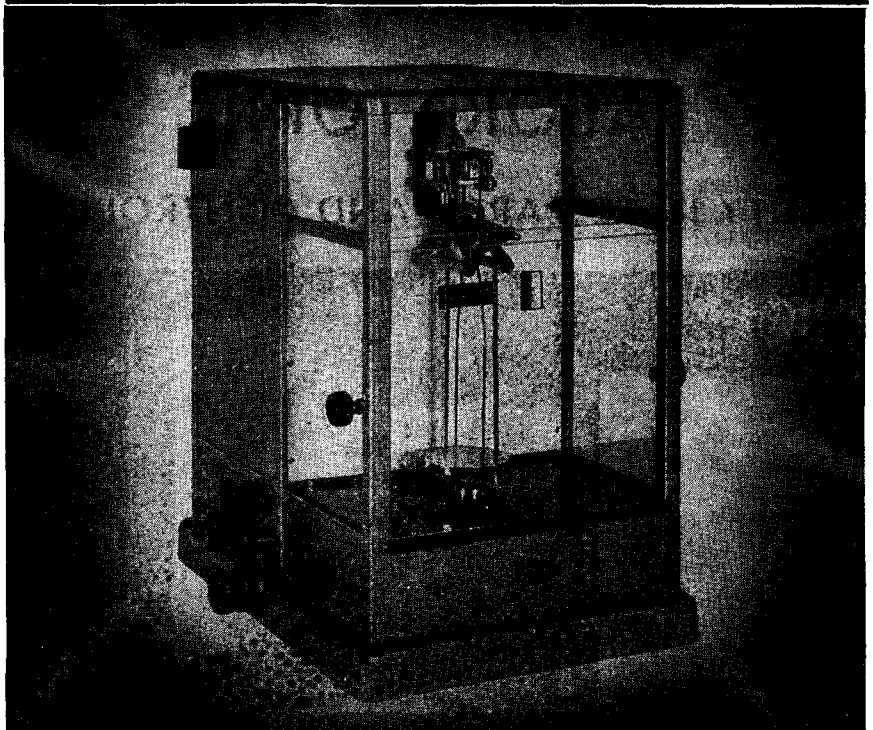

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and the correlations of x-ray findings with chemistry and solid state physics. The new book by Klug and Alexander is especially needed at present because it successfully "sweeps up" the accumulated achievements of the past 10 or 15 years in the fields of powder analysis, particle size determination, crystal orientation, stress measurements in metals, lattice constants, and related matters.

From the standpoint that this is a book for the specialist who wishes to go into the laboratory and use all the modern equipment and techniques to get the most precise and complete information that can be possibly obtained from any given sample of polycrystalline or amorphous material, the chapters may be evaluated as follows: Chapters 1, 2, and 3 discuss the fundamentals of x-ray diffraction and crystallography as beautifully as it has ever been done, but because this subject has been reworked so often by other authors, it may be skipped by the plant worker. The remaining chapters are designed to guide the worker through the laboratory procedures, acquainting him with the best of techniques and the proper methods of computation and correction and warning him of sources of error. These chapters furnish information that never before has been collected into a single volume for ready use. Chapters 5, 7, 9, and 10 are, in the reviewer's opinion, outstanding. The spectrometric powder technique as discussed in Chapter 5 brings up to date the powder analyst's greatest instrumental development of recent years, while Chapters 7, 9, and 10 discuss such things as quantitative analyses using the ASTM cards, crystallite-size determination, and stress measurement with careful consideration of line profiles resulting from geometric and absorption considerations.

This book is a fine contribution to the literature on x-ray diffraction.

Macro and Semimicro Qualitative Inorganic Analysis. *Arthur I. Vogel.* xv + 651 pages. Longmans, Green and Co., Inc., 55 Fifth Ave., New York 3, N. Y., 1954. $4.50. Reviewed by ALAN F. CLIFFORD, Purdue University, Lafayette, Ind.

The author states in the preface that his aim is to provide a text which can be employed by the student throughout his study of the subject. The book is consequently much more comprehensive than the usual freshman qualitative analysis text and actually attempts to teach techniques and the fundamental principles behind them, rather than being a mere laboratory cookbook. The procedures are laid out with sufficient simplicity for the least advanced