interests and specialization is supplied by the biographee, himself, he might come away with a slightly erroneous impression about the capabilities of a given individual, because of the differences in the degree of objectivity which each of us applies to an evaluation of our respective interests and the differences in the ways in which we describe our fields of specialization. However, I don't know any practical way of improving this particular item, and as it stands, it provides very useful information, particularly for the reader who realizes the inherent limitations.

Louis G. Stang, Jr., is Editor of **Nuclear Applications**, *a journal of the American Nuclear Society. Additional factual and unbiased information about him can be obtained from* American Men of Science, *8th, 9th, 10th, and 11th editions.*

SOURCE BOOK FOR SEPARATION CHEMISTS

Title The Solvent Extraction of Metal Chelates

Author Jiri Stary

Publisher MacMillan, 1964

Pages xiv + 240

Price $8.50

Reviewer L. Newman

This book deals with one major aspect of solvent extraction, namely, the field of metal chelates and its importance in analytical, inorganic, and nuclear technology. The subject matter is well organized—starting with a chapter on the composition and stability of the metal chelates. The author gives a brief, but quite adequate and complete, description of the more recent methods for analyzing data. This is followed by a chapter on the theory of solvent extraction, which is a generalized treatment of the various experimental parameters.

It quickly becomes obvious that the author's main purpose in writing this book is incorporated in the chapter on systems, where a section on each of the following reagents and their derivatives is included: beta-diketones; tropolone; 8-hydroxyquinoline; oximes; nitrosophenols; nitrosoarylhydroxylamines; hydroxamic acids; 1-(2-pyridylazo)-2-naphthol; 8-mercaptoquinoline; dithiocarbamates; xanthates; dialkyl- and diaryl-dithiophosphoric acids; dithiols; and, finally, miscellaneous reagents. Each section begins with a brief description of the physical properties of the reagent, sometimes followed by a statement of a means for purifying the reagent, its partition coefficient, and its general utility. The most significant aspects of this chapter are the detailed tables in which the optimum conditions for the extraction of a given element with a given system are listed. In many cases, the wavelength at which the metal chelate absorbs is included. These tables should certainly prove to be a main source of information for practicing chemists who are developing new separation and analytical procedures. The inclusion of some extraction curves for a number of elements in the more popular chelate systems should also prove to be quite valuable.

In the final chapter, the author presents what he considers the most selective procedures for the isolation of each of 48 metals in the form of their chelates. Generally, only one method is given for each element, but it is in sufficient detail for utilization without resorting to the original literature. This chapter will prove most useful for people who wish to use solvent extraction for the separation of an element from a relatively simple system.

The author has wisely omitted subjects such as the techniques of solvent extraction that are adequately covered in other texts. He has done a thorough job in surveying the literature and has included numerous references that have not been readily accessible to the western world. This book will prove to be most valuable as a source book for chemists who are concerned with separation problems.

If one were to find fault with this text, it would be the limitation of material to the field of metal chelates with no discussion of the broad field of ion association systems. How much more complete a source book this could have been, had the author seen fit to include this field! Perhaps he should make this a subject of a future text.

Leonard Newman, Leader of the Analytical Chemistry Group of the Hot Laboratory Division of Brookhaven National Laboratory, will be remembered by readers of **Nuclear Applications** *for a somewhat different kind of book review that he wrote for our June 1965 issue (pp 274-275).*

CONCISE TREATMENT OF A COMPLEX SUBJECT

Title Guide to Activation Analysis

Editor William S. Lyon, Jr.

Publisher D. Van Nostrand Co., Inc., 1964

Pages xix + 186

Price $5.95

Reviewer James L. Brownlee, Jr.

Since its introduction in 1936, the radioactivation method has grown from a highly specialized, seldom-used technique to one that has taken its place among the other highly sensitive methods for trace-element analysis.