

*Handbook of Analytical Chemistry*, edited by L. MEITES, McGraw-Hill Book Company, Inc., New York, 1963, price £ 18.8.0.

This, to the reviewers' best knowledge, is the first chemical handbook to contain an entire section of 170 pages of data on techniques of separation, including 87 tables on chromatography.

For solvent extraction (by H. FREISER, *et al.*) there is a table classifying metal extraction systems and another summarising extraction procedures for all elements in alphabetical order. Adsorption chromatography (by H. STRAIN) is condensed to five pages, but this is admittedly difficult to present in tabular form. The paper chromatography of inorganic substances (by F. H. POLLARD AND G. NICKLESS) contains 21 tables giving the  $R_F$  values of metal ions and anions in numerous solvent systems, as well as some tables of paper chromatographic reagents. The paper chromatography of organic substances (by D. P. SCHWARTZ) gives a selection of  $R_F$  values of various compound classes in some of the more important solvent systems in over 20 tables, and some reagents in a three-page table. Evidently the right choice is rather difficult here considering the enormous amount of material published. There are 20 pages of retention volume tables in the section on gas chromatography (by R. L. PECSOK) covering a wide range of compounds. The section on "electrochromatography" (by A. KARLER) is somewhat more concerned with explanatory text than data and gives only a rather vague table of "typical applications", while from the previous sections some tables of  $M_g$  values would have been expected. Ion exchange (by H. F. WALTON) is again descriptive, summarising separations in a single table giving the conditions under which certain separations were carried out. This seems to the reviewer much less important than the tables of  $K_d$  values in which recent literature abounds, both for inorganic and organic substances. The editor and the authors of this handbook are to be congratulated on their success in compiling a set of tables from which, in spite of a certain lack of homogeneity, the analyst can find a method for a given problem or a lead on the possibilities of a given technique.

The remainder of the book (over 1000 pages) covers most analytical methods and their applications and there is a 66 page subject index arranged in such a way that it gives not only the page number but also the kind of method that is found thereon.