

## New Books

**ION EXCHANGE TECHNOLOGY**, edited by F. C. Nachod and Jack Schubert (Academic Press Inc., New York, 626 pp., 1956, \$15). This volume is a worthy and greatly expanded successor to the technological portions of the excellent, earlier Nachod-edited "Ion Exchange: Theory and Application," published in 1949.

Possibly the most outstanding single characteristic of the new book is the detailed attention paid to recent developments in ion exchange theory and practice. Mention may be made of the chapters on Ion Exclusion, Electrochemical Operations (dealing particularly with the use of ion exchange membranes), Isolation in Quantity of Individual Rare Earths of High Purity, Processing Radio-Isotopes, and Treatment of Radio-Active Wastes. These chapters, in common with the rest of the 20 chapters of the book, have been written by individuals or groups with first-hand experience in the respective fields.

In addition to the lucid and authoritative treatment, this reviewer was also particularly impressed by the realistic evaluation of ion exchange set forth in the chapter on Sugar Refining and By-Product Recovery. Realistic also is the repeated—and timely—emphasis in the book on the economic aspects of ion exchange processes.

The mathematically inclined reader will be intrigued by the chapter on Prediction of Fixed-Bed Performance with a Computing Machine.

In any compilation, such as this one, it is probably impossible to achieve a balance in the treatment of the many fields which will satisfy everyone. Each reader, and probably each author, is no doubt influenced by his own field of special interest. It might be suggested, for example, that the really huge amounts of inorganic ion exchange materials produced for and consumed in the petroleum industry would seem to warrant more extensive discussion. Again it might be questioned if the chapter on Processing Radio-Isotopes by Ion Exchange deserves 67 pages whereas Ion Exchange Technology in Water Treatment, a field of obviously much greater general utility, has 41 pages. The 64 pages devoted to Electrochemical Operations, the technology of which is still relatively quite new, might likewise be considered excessive in some quarters. To this reviewer however details of new applications of ion exchange which apparently hold great promise are welcome since comprehensive information on these subjects, unlike water treatment, is not readily available in other places.

The physical make-up of the book—paper, typography, and format—is excellent. Each chapter is provided with an adequate bibliography.

All in all, the new volume, in the opinion of this reviewer, is definitely a "must" for anyone actively interested in ion exchange.

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**LADIES AT THE YACHT CLUB**—Above, seated, Mrs. Harold Van Wagenen; left, Mrs. W. T. Kittelberger, Mrs. F. B. White, Mrs. Norris Embree; below (Chicago Ladies' Committee), front, Mrs. R. H. Rogers Jr., Mrs. H. C. Black, Mrs. Walter Prosch; back, Mrs. C. E. Morris, Mrs. A. F. Kapecki, Mrs. G. J. Stockmann, and Mrs. Robert Bates.



**AT THE LUNCHEON TABLE**—Mrs. Keator McCubbin, Mrs. George Crump, Mrs. S. J. Rini, and Mrs. Charles Glankler during the Chicago meeting.



**VIEWING THE HARBOR**—Mrs. W. G. Spangler, Mrs. R. L. Edwards, Mrs. S. G. Sourelis, and Mrs. John Preston.