BOOK REVIEWS

ION EXCHANGE RESINS, 2nd Edition

In view of the many recent developments in the field of ion exchange resins this revision of a book first published in 1950 is highly justified. As stated in the preface, “The second edition, like the first, is designed to serve those who have just become interested in ion exchange technology and, in addition, those who have been working in a narrow area of ion exchange and are curious about the overall aspects of the field.” Approximately one-third of the book is devoted to the theory and mechanism of ion exchange, and to the methods of studying and characteristics of ion exchange resins. The remainder of the book, except for a chapter on the design and economics of ion exchange units, deals with various applications of ion exchange resins. The applications covered are largely industrial but there is a short discussion of the use of resins as sources of plant nutrients. Of the chapters dealing with applications, those entitled “Ion Exchange in Analytical Chemistry” and “Permeoselective Membranes and Their Applications” will probably be of most interest to soil scientists. The book will be a useful reference for agronomists involved in work with ion exchange resins. Nearly 1,200 references are cited.—C. A. Bower.

ARTIFICIAL STIMULATION OF RAIN

The subtitle is more descriptive than the title: “Proceedings of the First Conference on the Physics of Cloud and Precipitation Particles held at Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, September 7-10, 1955.” Only 2 of the 47 papers deal directly with rainmaking experiments in the sky. Most of the other papers reflect the mood of the opening sentences of a paper by the senior editor: “When the reports of artificial rainmaking spread from this country to Europe, the author was in charge of a metallurgical laboratory of the German Weather Service. At that time, it was a new idea, but the author had to learn more about the formation of precipitation before he could judge the potentialities of rainmaking. It was clear to the author that he had to learn more about the formation of precipitation before he could judge the potentialities of rainmaking.” (p. 315). The nature of the studies that have been done are given by the titles of the four major parts of the book: Part 1—Aerosols: Their Origin, Distribution, and Interactions. Part 2—Condensation and Coagulation of Cloud and Raindrop Size; Rain From Water Clouds. Part 3—Melting and Freezing; Studies of Snow Formation and Melting. Part 4—Crystal Growth and Nucleation; Laboratory and Field Studies.

The participants in the symposium were mostly specialists in cloud physics research working in the U. S. Federal scientific services or doing contract research sponsored by them. Canada, Mexico, and Japan were also represented. It was an understatement to say that these people were specialists in the field of cloud physics in North America. The authors are the field. The discussions which follow each paper reveal good editing. Many people have much to say, and they manage to get it said briefly and clearly. The individual papers are neatly finished, with clear diagrams, graphs, and photographs. The paper, printing and binding by Pergamon Press are of excellent quality. The book measures 7 1/2 x 10 x 1/2 inches and weighs 2 1/2 pounds. It cannot be read at one sitting. A course in physical chemistry is better background for understanding many of the papers than are three or four courses in meteorology.—WINTON COVEY.

PLEISTOCENE MAN AT SAN DIEGO

Dr. George F. Carter, author of this book, is Chairman of the Isaiah Bowman Department of Geography at the Johns Hopkins University in Baltimore. In his book he has set himself the task of proving that man has lived continuously in the Americas since the last glacial age. He has done this by means of the study of the Pleistocene epoch, which is the last great ice age. By using the latest archaeological methods, Dr. Carter has been able to establish a number of important facts about the prehistoric inhabitants of the Americas. He has also shown that the early inhabitants of the Americas were highly skilled in the use of tools and weapons. His book is a valuable contribution to the study of prehistoric America.