

REQUEST FOR FALL ISSUE PAPERS

Each year *Chemical Engineering Education* publishes a special fall issue devoted to graduate education. This issue consists of 1) articles on graduate courses and research, written by professors at various universities, and 2) ads placed by chemical engineering departments describing their graduate programs. Anyone interested in contributing to the editorial content of the 1988 fall issue should write to the editor, indicating the subject of the contribution and the tentative date it can be submitted. Deadline is June 1st.

ChE book reviews

CATALYST SUPPORTS AND SUPPORTED CATALYSTS

by A. B. Stiles

Published by Butterworths,

80 Montvale Ave., Stoneham, MA 02180;

270 pages, \$54.95 (1987)

Reviewed by

John B. Butt

Northwestern University

The title of this book is interesting enough since most of those who deal in catalysts, particularly of supported metals, often have an uneasy feeling that the "support" (dispersive phase, contact phase, carrier, holder—*i.e.*, any number of names) has never been given enough attention. This book is a good start in trying to rectify this situation, and Dr. Stiles has collected a good group of reviews concerned with this. I particularly enjoyed the first five chapters, devoted to alumina, oxide supports other than alumina, activated carbon, and the associated information on their preparation and properties. The surface chemistry involved in catalyst-support interaction is probably not as extensively dealt with here as in other sources, but the overall treatment considered together with preparation techniques is quite a satisfying and useful one. Chapter 7, on organic polymers, also falls into this category.

The remainder of the book sort of strays from the announced title. Khoobiar has done a good job in Chapter 9 of "Spillover," and while significant opposing points are ignored, this is still a good review. Less satisfying are chapters on the "Commercial Application of Molecular Sieve Catalysts" and "Multifunctioning Catalysts." This is all old stuff, it seems rather qualitative, and it strays far from the announced title of the volume.

The book is not very well proofread, as illustrated on page fourteen as well as many other places in the text. This makes me wonder how good the numbers

in the many tables and illustrations are. The publisher should be more careful.

In spite of these reservations, I would say that this is a book worth having. Get it, and learn about supports. □

MASS TRANSFER WITH CHEMICAL REACTION IN MULTIPHASE SYSTEMS

Vol I: Two-Phase Systems (679 pages)

Vol II: Three-Phase Systems (399 pages)

Edited by E. Alper; Martinus Nijhoff Publishers, The Hague, Netherlands, 1983. \$140

Reviewed by

Arvind Varma

University of Notre Dame

This two-volume book constitutes the proceedings of a NATO Advanced Study Institute held in Turkey in 1981. It includes thirty papers, primarily of a review type, by twelve invited lecturers, and nine other contributions. Various topics in the area of mass transfer with chemical reaction in gas-liquid, liquid-liquid, and gas-liquid-solid systems are covered. These topics arise in the context of either separation processes or reaction engineering. Some of the papers treat the general problem of multiphase contacting and reactor design. Others deal with the modeling of specific types of contactors or reactors, and include methods for obtaining or estimating physicochemical and other data. Finally, some papers deal with a specific application, *e.g.*, facilitated transport, bioreactors, or reactors for coal conversion technology.

The invited lecturers are experts in the area (mostly from Europe) who have written other reviews as well. The material is somewhat dated by now, and other more recent reviews and books have appeared in print. Nevertheless, these volumes constitute a rich source of information for this relatively narrow but important area, and they should prove quite useful to those involved with multiphase chemically reacting systems.

The volumes were printed from camera-ready copy. For this type of production, the cost of the book is high. □