

cific example that is being used to illustrate the phenomena. For instance, when students begin to realize that the same set of principles can be used to understand the behavior of a fixed-bed catalytic reactor and the behavior of a low-pressure, chemical vapor deposition reactor, then they are beginning to focus on those fundamental principles rather than on the specific technological applications. As a result, the students obtain a deeper appreciation for the general applicability of chemical engineering science.

SUMMARY

We have developed a textbook supplement that facilitates the integration of examples from non-traditional technologies into a reaction engineering course. These educational materials provide a means for introducing students to the application of chemical reaction engineering principles in microelectronics and biochemical technology. The coursepack has been used in classes at The University of Michigan, and the student evaluations have been generally favorable.

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until a steady state is reached. Another interesting feature of the book is its excellent compilation of problems.

The reviewer has serious doubts whether a student can truly appreciate the chemical engineering orientation of the book at the sophomore level—one can easily get weighted down by new concepts which can divert the attention away from the numerical techniques themselves. It would be better to use this text at the senior level, after a student has been exposed to the basic courses in chemical engineering. But at that level, one could possibly introduce the orthogonal collocation method, which is quite popular now but which does not find a place in this text. Also, one could then do more justice to the stiffness of ODE's (although some introductory discussion exists on stability criteria for IVP's) and to finite element techniques.

Overall, this book will satisfy the demands of undergraduate chemical engineering students who usually have difficulty in understanding the presentations in more general texts. With some additional material incorporated by an instructor, it could be an excellent text at the senior level. Some instructors can possibly use this as a text at earlier stages in the curriculum. □

ChE books received

Computational Quantum Chemistry, by Alan Hinchliffe; John Wiley & Sons, 1 Wiley Dr., Somerset, NJ 08875-1272; 112 pages, \$34.95 (1988)

Diffusion and Convection in Porous Catalysts, Webster and Strieder, eds; AIChE, 345 East 47th St., New York, NY 10017; 96 pages; \$20 members, \$35 Others (1988)

Separation Technology, Li and Strathmann, eds; AIChE, 345 East 47th St., New York, NY 10017; 633 pages; \$50 Members, \$70 Others (1988)

Environmental Management Handbook: Toxic Chemical Materials and Wastes, by Kokoszka and Flood; Marcel Dekker, Inc., 270 Madison Ave., New York NY 10016; 656 pages, \$125 (1989)

Fatty Acids in Industry: Processes, Properties, Derivatives, Applications, edited by Johnson and Fritz; Marcel Dekker, Inc., 270 Madison Ave., New York, NY 10016; 688 pages, \$150 (1989)

Droll Science, compiled by Robert L. Weber; The Humana Press Inc., PO Box 2148, Clifton, NJ 07015; 352 pages, \$22.50 (1987)

How to Write and Publish a Scientific Paper, 3rd edition, by Robert A. Day; Oryx Press 2214 North Central at Encanto, Phoenix, AZ 85004; 224 pages, \$21.95 (1988)