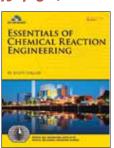


## Books

## **ESSENTIALS OF CHEMICAL REACTION ENGINEERING** H. Scott Fogler, Pearson Education, Boston, MA, \$120, 752 pages, Nov. 2010, ISBN: 978-0-13-714612-3



Building on his classic text, *Elements* of Chemical Reaction Engineering, Fourth Edition, Fogler's latest textbook includes new material (including a greater emphasis on safety), with lessons presented in a way that will help students gain an intuitive understanding of the field's essentials through reasoning rather than memorization. Classroom-tested

and revised based on the feedback of more than 200 of the author's Univ. of Michigan students, the book provides new perspectives and resources to help students discover how reactors behave in diverse situations. An accompanying CD-ROM includes more than 60 realistic interactive simulations, six graduate-level chapters, an AspenTech tutorial, computer games that review and apply important chapter concepts, and more.

## Jan Harmsen and Joseph B. Powell, John Wiley & Sons, Hoboken, NJ, \$90, 270 pages, March 2010, ISBN: 978-0-470-18779-1

In the preface to this book, the editors discuss sustainable development as development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs. This approach is elaborated in the book's underlying concept of a "triple bottom line" for today's process industries: beyond the economic

bottom line, industries must develop natural resources within a framework that balances current demand with the future needs of people, the planet, and prosperity (i.e., "Triple P," or the triple bottom line).

SUSTAINABLE DEVELOPMENT IN THE PROCESS

INDUSTRIES: CASES AND IMPACT

Using actual case studies, this book details how worldwide implementation of sustainable processes in present-day industries can positively influence the Triple P by lowering

> poverty, reducing pollution, and conserving resources.

The editors have assembled a wide sampling of sustainability case studies. with chapters contributed by experts representing a variety of industries (including oil and gas, bulk chemical, specialty chemical, material processing), geographic regions (Asia, Europe, and the U.S.), and systems (industrial ecoparks, domestic-industrial ecology, and corporate operating sites). Applications in industries such as petroleum and fuel, food, recycling, mineral processing, and water processing are explored from both the micro (e.g., molecules, unit operations) and macro (e.g., value chain, industrial site) perspectives.

Lessons learned from the sustainability approaches described in these case-studies, along with sustainable development metrics and methods provided with the examples, should help organizations of all sizes to implement their own sustainable approaches. The book can also be used in courses on sustainable development, in regional planning and development, industrial ecology, industrial metabolism, process design, and innovation.

