$X_A = 0.508$

$X_B = 0.253$

$X_C = 0.239$

The customer's assertion is correct ($\pm$ 5% deviation considered acceptable). □

ACKNOWLEDGMENTS

I would like to thank the students of my undergraduate course in thermodynamics of fall 1981 (University of Concepción) for having the courage to accept the challenge of first attacking the problem. Special thanks go to Mr. Jaime P. Morales, a good, perceptive student, for his useful contributions to my original problem statement.

ChE book reviews

PRINCIPLES OF POLYMERIZATION ENGINEERING

by J. A. Biesenberger and D. H. Sebastian
John Wiley & Sons, New York, 1983: $54.50

Reviewed by Donald G. Baird
Virginia Polytechnic Institute and State University

Chemical engineers are slowly being exposed to more polymer courses in their education. General courses in polymer science are most commonly available, but courses in polymer processing, materials, and chemistry are also being offered. One area of polymer engineering which should also be studied by chemical engineers and chemists is that of polymerization engineering. Some of the significant problems faced by scientists and engineers in the polymer industry are how to scale up reactors from the bench size, and how to design optimum and efficient polymerization processes. As we update the traditional engineering curriculum, it is important that a course in polymerization engineering be included. Of course, offering a course of this nature requires the availability of a textbook. In this article we review the text *Principles of Polymerization Engineering* by J. A. Biesenberger and D. H. Sebastian.

We first look at the goals of this book and its specific contents. This will be followed by a discussion of whether the authors reached their objectives. We will also discuss briefly the level of student for which the book is intended and critically evaluate it in terms of its pedagogical and scientific value.

The goal of the book, as stated by the authors, is to formulate generalizations that will be useful in the design, scaling, and modification of polymerization processes. To accomplish their goal, the authors start in Chapter One by defining the important concepts and terms needed in the remainder of the book. For example, the basic types of reactors and polymerization processes, along with the important variables, are discussed. The mathematical description of the reaction mechanisms and other pertinent relations are presented. In Chapter Two the kinetic variables (besides the monomer and initiator consumed) which affect the properties such as the degree of polymerization, the degree of polymerization distribution, degree of branching and its distribution, and copolymer composition and its distribution, are discussed. The main goal of this chapter is to mathematically incorporate the factors which affect the variables just mentioned, into the reaction kinetics.

Continued on page 91.

ChE letters

ANECDOTES ANYONE?

Dear Editor:

I should be pleased and grateful if you would kindly print this invitation . . . in an early issue of *CEE*. Many of your readers probably know of gems of chemical humor; I'd welcome your help and theirs in finding some.

For possible inclusion in an anthology, "Science with a Smile," I should welcome contributions of humor in the sciences: physics, chemistry, astronomy, mathematics, earth sciences, life sciences and computer science—historic and contemporary. Appropriate would be anecdotes, biographical notes, cartoons, parodies, verse, examples of self-deception, and hoaxes. I especially seek pieces which, while humorous, also have value in the history of science, providing insight into changing attitudes or illuminating personalities.

So far, chemistry is least well represented of the sciences in the manuscript for this anthology. I'd welcome evidence that chemists are not lacking in humor.

Please identify fully the sources of all contributions.

Robert L. Weber
104 Davey Laboratory
University Park, PA 16802