and polycyclic organics. His computer experience (he had, among other things, taught the first FORTRAN course on campus and had served as acting director of the computer center many years ago) led him to create a program which computes costs and the implications of putting scrubbers on various plants and how these devices affect air quality and economics. Interestingly, some of Bill's studies caused him to form more cautious conclusions than would be expected from his long-standing social stance. He has continued this interest in modeling and, even though the EPA has not been able to implement his views, he still believes that the methodology is valid. The ability to predict environmental effects, even for substances for which no standards exist, would add to the rational planning process for industry and government.

In recent years, Bill has been an instructor in the college's freshman introductory courses. As these courses have evolved (or devolved, depending on one's point of view), Bill has been an active source of ideas. Thus, we see that over the years, and in any given year, Bill's teaching has ranged from entering freshmen to senior graduate students, a testimony to his deep concern for education and the academic life. This past year he took his "Flying Circus of Chemical Engineering" to Malaysia for a quarter, teaching FORTRAN and introduction to engineering at Petaling Jaya Community College, near Kuala Lumpur. He also made separate trips to the People's Republic of China, Singapore, Japan and Thailand. (You can imagine the sorts of hats he collected on these various trips!)

Again, for many years, teaching the senior design course has also led Bill to be official guide and tour operator for the senior plant trip. Generally, the university bus is rented for a few days and Bill takes the seniors on an intense visitation of a number of plants, including one operating plant of the type the students had to design that year. Sometimes the trip would include other components, as in 1985 when the entire senior class was taken to the national AIChE meeting in Chicago before launching into the plant trips proper. This year, the small senior class didn't need the massive bus, so Bill took them all in a large van and served as the driver as well. Over the years, this plant trip has been a good experience for students and, although other faculty members occasionally go along, Bill has had the major responsibility. He has become an expert at mediating incipient fistfights or modifying occasional raucous behavior at motels.

In their non-university life, Bill and Pat have retained their interest in folk-dancing and, in addition, have become ski enthusiasts, traveling wherever the snow is when they can. They have two adopted children, David and Nancy, and this has led to Pat's professional work in the psychology of adoption. Daniel, their younger son, is active in hockey, and that puts Bill at the rink as a spectator.

Bill's present task, in addition to teaching and all his other activities, is to look at the undergraduate curriculum and lead the discussion of what changes, substitutions, directions, and emphases should be implemented to keep us where we ought to be. His wide-ranging interests and professional involvements made him well-suited for this important work. (We have already made the laboratory hard hats come in green and white, the university colors, partly to keep up with Bill's sartorial eccentricities.) □

REQUEST FOR FALL ISSUE PAPERS

Each year CHEMICAL ENGINEERING EDUCATION publishes a special Fall issue devoted to graduate education. This issue consists 1) of articles on graduate courses and research, written by professors at various universities, and 2) of announcements placed by ChE departments describing their graduate programs. Anyone interested in contributing to the editorial content of the Fall 1987 issue should write the editor, indicating the subject of the contribution and the tentative date it can be submitted. Deadline is June 1st.

ChE book reviews

ENGINEERING PROPERTIES OF FOODS

M. A. Rao and S. S. H. Rizvi, Editors
Marcel Dekker, Inc., New York, 1986. 398 pages, $69.95

Reviewed by
C. Judson King
University of California, Berkeley

There is a general lack of compiled data on physical properties of food materials, as relates to various food-processing operations. Thus this book addresses an important need. The properties covered in chapters by different authors are rheological properties of fluid (M. A. Rao) and solid foods (V. N. M. Rao and G. E. Skinner), thermal (V. E. Sweat), mass-transfer (G. D. Saravacos), and electrical (R. E. Mudgett) properties, thermodynamic properties relating to dehydration (S. S. H. Rizvi), and properties relating to reverse osmosis and ultrafiltration (T. Matsuura and S. Sourirajan). The book represents a substantial effort on the part of the authors and is generally well edited.

As is characteristic of the food engineering field,

the discussions do not presume or build upon prior knowledge of heat, mass, and momentum transfer and thermodynamics. Instead, an effort is made to start with the necessary basics and build forward. The difficulty of doing this is particularly evident in the chapter on mass-transfer properties where the forty-three pages treat diffusion, mass-transfer coefficients, phase equilibria, interphase mass transfer, operating diagrams, crystallization, and the various pertinent properties of foods. For the chemical engineer, the space occupied by the survey of basics in the various chapters could much more effectively have been devoted to the food properties themselves.

Given the title of the book, it is surprising that there are not more extensive tables and figures reporting actual food properties. Much more data exist at various places in the literature. In some cases (enthalpies, thermal conductivities) there are substantial listings of data, but in most other cases (*e.g.*, sorption isotherms) hardly any actual data or references to compilations of data are reported.

The chapter on membrane processes focuses less specifically on foods than do the other chapters and stands as a valuable general-purpose review of separation properties of membrane materials. □

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