



Panel discussion at Industrial Advisory Committee meeting, with members, from left, James R. Fair, program head; Herbert H. Woodson, director, Center for Energy Studies; Jimmy L. Humphrey, program manager; Donald R. Paul, principal investigator and chairman, Department of Chemical Engineering.

for keeping up to date in separations areas where there is not justification for doing so in-house—for example, in an area of only peripheral interest presently but possibly more active in the future; (4) the participant benefits from interaction of its people with those in other organizations with kindred interests. In some ways, the last-named benefit can be the greatest of them all, if the participant works it carefully.

FUTURE DIRECTIONS

We expect the separations field to continue in the forefront of chemical processing technology, along with the allied areas of reaction engineering and transport processes. Developing interest in specialty chemicals, such as those in the biotechnology and electronics industry segments, carries with it the critical need for recovery and purification, often under non-classical operating conditions. Tonnage chemicals will remain under continuous pressure to reduce costs and conserve energy, and this means retrofitting a like separation technique, substituting a new separation technique, or adopting novel combinations of separating methods. Much of the time-honored technology, for example in distillation, is still not well understood and thus may be difficult to exploit economically. In summary, chemical engineers will continue to deal heavily with separation problems, and we expect to provide them with some answers.

The future of the Separations Research Pro-

gram at The University of Texas also seems bright. Along with the new research laboratory space will come new equipment provided by the university, some of it of a fairly large scale. A number of companies have recently expressed interest in becoming participants. Plans are developing for the use of visiting scholars and full-time research personnel. We have outside grants and contracts in the separations field that serve to leverage the funding provided by the industrial participants. Importantly, the entire program is being staffed with excellent graduate students, and the learning experience for them and the principal investigators is, indeed, the *raison d'être* for the entire effort. □

ChE books received

Gas Tables: International Version, Joseph H. Keenan, Jing Chao, Joseph Kaye. John Wiley & Sons, Somerset, NJ 08873; 211 pages, \$37.95 (1983)

Metering Pumps: Selection and Application, James P. Poynton. Marcel Dekker, Inc., New York 10016; 216 pages, \$29.75 (1983)

Chemical Grouting, Reuben H. Karol. Marcel Dekker, Inc., New York 10016; 344 pages, \$45.00 (1983)

Basic Chemical Thermodynamics, Third Edition, E. Brian Smith. Oxford University Press, New York 10016; 160 pages, \$21.95 (1983)

Los Alamos Explosives Performance Data, Charles L. Mader, James N. Johnson, Sharon L. Crane. University of California Press, Berkeley, CA; 811 pages, \$45.00 (1983)

Practical Quality Management in the Chemical Process Industry, Morton E. Bader. Marcel Dekker, Inc., New York 10016; 160 pages, \$27.50 (1983)

Fourth Symposium on Biotechnology in Energy Production and Conservation, Charles D. Scott, Editor; John Wiley & Sons, Inc., Somerset, NJ 08873; 495 pages, \$65.00 (1983)

NMR and Chemistry: An Introduction to the Fourier Transform-Multinuclear Era, Second Edition, J. W. Akitt. Chapman & Hall, 733 Third Avenue, New York, NY 10017; 263 pages, \$16.95 (paperback) (1983)

Waste Heat: Utilization and Management, S. Sengupta and S. S. Lee; Hemisphere Publishing Co., New York 10036; 1010 pages \$125.00 (1983)

Journal: Particulate Science and Technology, Vol. 1, No. 1, J. K. Beddow, Editor; Hemisphere Publishing Co., New York, NY 10036; \$27.50/year indiv. rate.

Prudent Practices for Disposal of Chemicals in Laboratories, Nat. Academy Press, 2101 Constitution Ave., Washington, DC 20418; 282 pages, \$16.50 (1983)

The Chemistry and Technology of Coal, James G. Speight, Marcel Dekker, New York 10016; 544 pages, \$69.75 (1983)