

understanding the possibilities as well as the problems involved. However, one problem does not appear to be mentioned: Before nuclear explosives can be used for earth-moving projects on a large scale, some modification of the nuclear test-ban treaty will probably be required, and this may not be easy to achieve.

Samuel Glasstone is a resident consultant at the University of California, Los Alamos Scientific Laboratory, and is well known for his books, which include The Effects of Atomic Weapons (1950), and two editions of The Effects of Nuclear Weapons (1957 and 1962). He graduated from the University of London, England, with MS, PhD, and DSc degrees in physical chemistry, but entered the nuclear field in 1948 when the USAEC asked him to write the Sourcebook on Atomic Energy. His books on physical chemistry and nuclear science and engineering have been translated into ten foreign languages. In 1959, he was given the Worcester Reed Warner medal of the American Society of Mechanical Engineers for "outstanding contributions to the permanent literature of engineering" and, in 1968, he received the Arthur Holly Compton award in education from the American Nuclear Society.

OPPORTUNITY OR CHAOS ?

Title Scientific Progress and Human Values
Editors Edward and Elizabeth Hutchings
Publisher American Elsevier Publishing Company, Inc., 1967
Pages iv + 219
Price \$7.50
Reviewer Kenneth S. Pitzer

This book presents the proceedings of the conference celebrating the 75th anniversary of the California Institute of Technology in Pasadena, California, October 25-27,

1966, with an added preface by Lee A. DuBridg. In all, there are fifteen papers by outstanding authorities in various areas of physical, biological, and social science, as well as education and technology, together with a panel discussion on the subject "What are the Urgent Problems?"

There is no pretense of evenness in the coverage of various frontiers of knowledge, but the choice of topics and author-speakers is excellent. Each chapter gives a fine summary of recent advances and the current status of a particular field, and in some cases there is also a very penetrating and thought-provoking discussion of future problems and possibilities. I found particular interest in the discussions of the relationship between modern biology and the problems that may confront our civilization. For example, Professors Sinsheimer and Bonner suggest that it may soon be possible to separate male-producing from female-producing sperm and thereby allow parents to choose the sex of their children. How will society wish to use this possibility?

This book contains many speculations of similar developments with far-reaching consequences.

Kenneth S. Pitzer (PhD California, 1937) has won distinction in education, science, and government. Dr. Pitzer is President of Rice University and serves as a Director of the Federal Reserve Bank of Dallas, a Director of the American Council on Education, and as a Trustee of the Rand Corporation, the Carnegie Foundation, and Pitzer College. From 1949 to 1965, he served with the U.S. Atomic Energy Commission, first as Director of the Division of Research, then as Member and Chairman of the General Advisory Committee. A member of the President's Science Advisory Committee, he has received numerous honors recognizing his contributions to molecular spectroscopy, thermodynamics, and quantum theory and statistical mechanics applied to chemistry; his most recent award being the American Chemical Society's Priestley Medal for 1968.

BOOKS OF INTEREST . . .
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317 pages. 1968 \$15.00

THERMAL STRESS TECHNIQUES IN THE NUCLEAR INDUSTRY

Z. Zudans, Tsi Chu Yen, and W. H. Steigelmann.

A well-organized and readable book useful either as a text or as a reference for workers in the field. Gives theory, examples, illustrations and detailed procedures required for the full understanding and solution of problems in the nuclear stress field.

605 pages. 1965 \$20.00

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