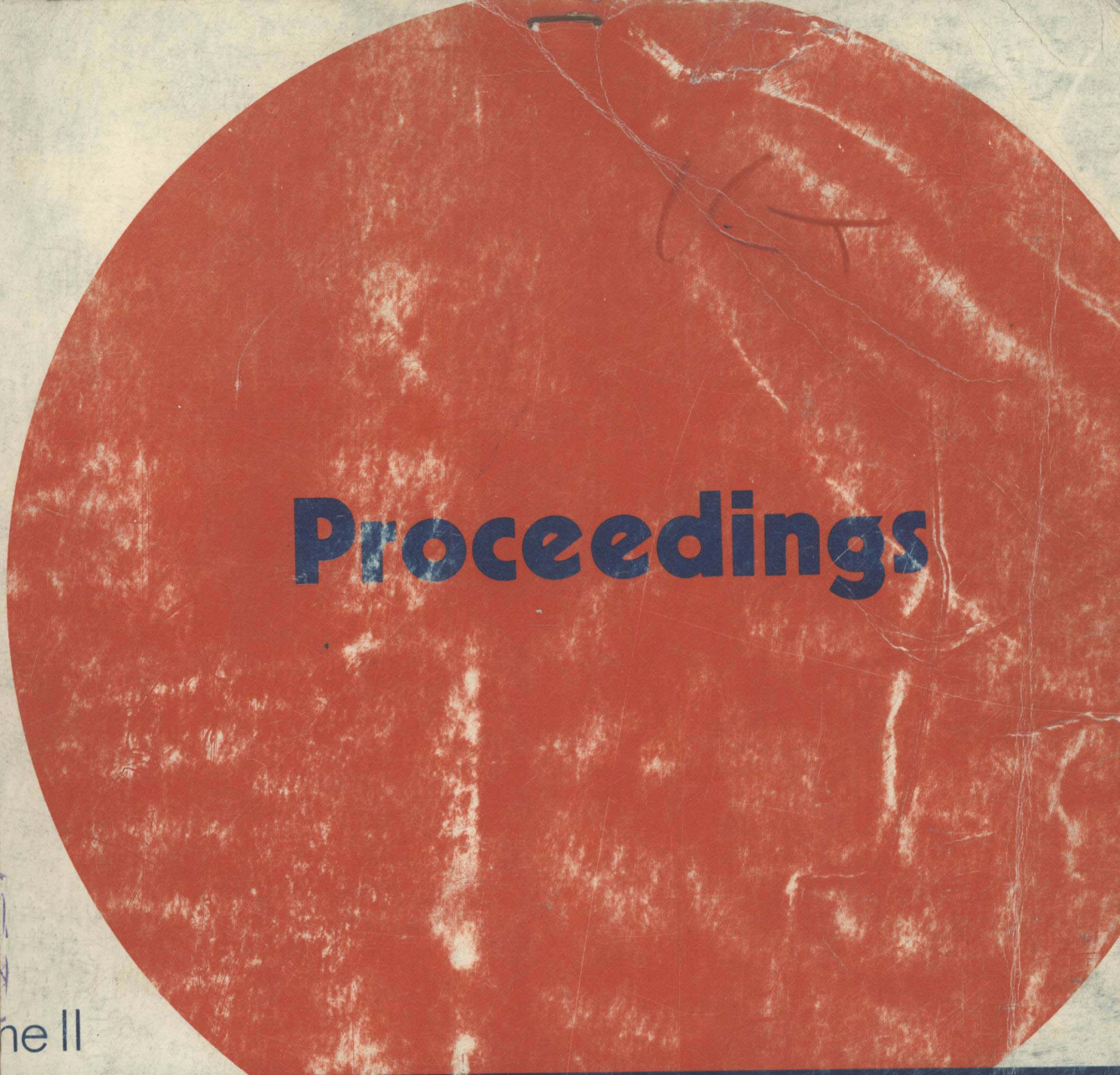




Proceedings

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**The
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(Pachec '77)**

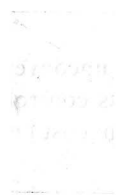
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FORWORD

These Proceedings comprise technical papers on a wide variety of topics, including energy, petroleum and petrochemicals management, forest products, and the environment.

ENERGY

A number of sessions emphasize various aspects of energy, both from a management point of view and from a technical one. Sessions in the latter category cover subjects such as the effect of energy scarcity on process design, energy conservation, and new energy sources. Management aspects include energy supply-and-demand forecasts, governmental and political implications, and the impact on the growth and direction of the process industries. Several sessions cover topics relating to new, alternate, or unconventional energy sources, such as coal, shale oil, tar sands, forest products, etc.

PETROLEUM AND PETROCHEMICALS

Five sessions are presented in the petroleum and petrochemicals area; topics include the economics of Pacific area energy strategies, advances in petroleum and petrochemical technology, new energy sources, and energy conservation.

MANAGEMENT

Topics include the energy forecasts and their implications, the current status and long-range outlook for unconventional fuels, technology transfer to developing countries, engineering and management of high technology projects, technology assessment, and business relations with Japan.

FOREST PRODUCTS

Topics include utilization of cellulosic materials in unconventional food production, forest residuals for the production of chemicals and energy, simulation and process control in pulp and paper production, heat and mass transfer processes in the forest products industry, and minimum cost pulp mill design.

ENVIRONMENT

Environmental papers are presented in sessions on stack emissions, use of water; the environmental aspects of some of the new energy sources, and other topics. In the stack emissions area, four sessions are devoted to SO₂ stack gas scrubbing technology and one to stack emissions. In the water area, one session is concerned with closed systems and two are on water problems associated with coal conversion and shale oil production. Three sessions are devoted to the aspects of shale oil production and processing, and one each to coal conversion and tar sands processing. A session on effective use of natural resources and water and industrial wastes and a session on selected papers (including corrosion and other topics) round out the environmental program.

SOLIDS

Seven sessions are concerned with the handling and processing of solids; two sessions are devoted to drying, two to fluidization, and three to solid-liquid separation.

CHEMICAL ENGINEERING FUNDAMENTALS

Transport phenomena is the subject of three sessions. One session is devoted to applied numerical methods, and two sessions consider computing in the 1980s.

Substantial contributions were made by the sponsoring societies, the Inter-American Confederation of Chemical Engineering and the Asian Pacific Confederation of Chemical Engineering. Professor Dee H. Barker, Brigham Young University, served as Technical Program Coordinator for the Inter-American Confederation of Chemical Engineering, and Dean W. Robert Marshall, University of Wisconsin, served as Technical Program Coordinator for the Asian Pacific Confederation of Chemical Engineering. Our special thanks to these and all the others who gave unsparingly of their time to help ensure an interesting and technically significant program for the Second Pacific Chemical Engineering Congress (Pachec '77).

Cecil L. Smith
Technical Program Chairman

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