

PROCEEDINGS OF PACHEC '83

**The Third Pacific
Chemical Engineering Congress**

*Seoul, KOREA
May 8—11, 1983*

Volume I

- Fluid Mechanics
- Fluid-Solid Interactions
- Fluid Operations
- Mass Transfer



THE THIRD PACIFIC CHEMICAL ENGINEERING CONGRESS

***Seoul, KOREA
May 8-11, 1983***

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The lines in the background are from the first few pages of the promulgation of Hangul, which was printed from metal type in 1446. The new system of Korean alphabet was created through decades of labor by Royal Academicians in early 15th century.

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Preface

The Proceedings have been divided into the following 4 volumes to keep each volume within manageable size:

Volume I

Fundamentals (1)

**Fluid Mechanics, Fluid-Solid Interactions
Fluid Operations, Mass Transfer**

Volume II

Fundamentals (2)

**Kinetics & Catalysis, Heat Transfer
Polymers, Thermodynamics**

Volume III

**Energy & Resource, Process Modeling
Process Simulation, Process Dynamics & Control
Computer Applications**

Volume IV

**Bioengineering, Environment, Technology Management
Chemical Engineering Education**

All texts of manuscripts received prior to the printing deadline of March 31, 1983 are included in these volumes. Some manuscripts not received by the deadline were regrettably excluded although the authors were permitted to present them at technical sessions. The papers were printed directly from the camera-ready originals submitted by authors.

Many volunteers, mostly graduate students of the Korea Advanced Institute of Science & Technology, have worked mightily to bring out these volumes and to them the Program Committee owes much. Since these names do not appear anywhere in the Program, we wish to mention them here: Sang Wook Kang, Jeong Ae Chang, Kyung Beom Lee, Yong Chae Chee, Do-Hyun Kim, Eun Kee Kim, You Sin Yeom, Yeong Cheol Kim, Sang Gon Seo, Jeong Wha Chang.

The Program Committee

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