

*The AIChE JOURNAL, a monthly publication of the American Institute of Chemical Engineers, is devoted to fundamental research and developments having immediate or potential value in chemical engineering.*

**EDITOR**

Matthew V. Tirrell

**MANAGING EDITOR**

Haeja L. Han

**COPY EDITOR**

Arthur H. Baulch

**EDITORIAL ASSISTANT**

Karen M. Simpson

**CONSULTING EDITORS****Richard Alkire***Electrochemical Engineering***Robert A. Brown***Computation***Mark E. Davis***Catalysis***Morton M. Denn***Materials***L. S. Fan***Particle Technology***Carol K. Hall***Thermodynamics***George E. Keller, II***Separations***Michael T. Klein***Reaction Engineering***Douglas A. Lauffenburger***Bioengineering***Julio M. Ottino***Transport Processes***Glen H. Pearson***Materials Processing***Ronald W. Rousseau***Crystallization***John Seinfeld***Environmental Engineering***Michael Shuler***Biochemical Engineering***George Stephanopoulos***Biochemical Engineering***PRODUCTION DIRECTOR**


Daniel Chillak

**EDITOR-IN-CHIEF**

Mark D. Rosenzweig

**MANAGING DIRECTOR,  
PUBLICATIONS & COMMUNICATIONS**

Stephen R. Smith

The Society for Computer Simulation presents 

**CONFERENCE ANNOUNCEMENT**

'95 SMC SIMULATION MULTICONFERENCE  
April 9-13, 1995 • Phoenix, Arizona

**SIMULATORS INTERNATIONAL XII**Chair: Maurice Ades, *Westinghouse Savannah River Co.*

The Spring Simulation Conference features ten sessions and panels on applications of computer simulation technologies to environmental engineering and process simulation. It includes the following groups of topics:

- Simulation of waste management and environmental sciences
  - Waste processing
  - Waste storage and safety
- Simulation of industrial and process simulation
  - Chemical processing
  - System simulation
  - Mathematical models
  - Simulation of abnormal situations

In addition, the conference has many sessions on generic applications of simulation technologies and simulators to plant operation and control including parallel computing and AI techniques.

**Who Should Attend:** Users of simulation technologies, engineers, researchers and vendors of simulation hardware and software.

**For more information contact:**

SMC '95  
c/o The Society for  
Computer Simulation  
P. O. Box 17900  
San Diego, California 92177  
Tel.: 619.277.3888  
Fax: 619.277.3930  
email: scs@sdsc.edu

Ariel Sharon, SMC '95 Chair  
Computer Simulation  
Technologies, Inc.  
459 Quails Drive  
Naperville, IL 60565  
Tel.: 708.983.5195  
Fax: 708.983.5249  
email: sharon@ecn.purdue.edu

*AIChE Journal* (ISSN 0001-1541) is published monthly by the American Institute of Chemical Engineers, 345 E. 47th St., New York, NY 10017. Manuscripts should be submitted to Editor Matthew V. Tirrell at the Dept. of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN 55455, phone (612) 625-5823, fax (612) 624-6564. The statements and opinions in the *AIChE Journal* are those of the contributors, and AIChE assumes no responsibility for them. Annual subscription rates: \$445 for nonmembers, \$60 for members, and \$30 for student members; outside U.S., add \$70 for postage. Single copies: \$45; outside U.S., add \$5 for postage. Second-class postage for domestic and air mail postage for foreign mailing paid at New York, NY and additional mailing offices. Copyright 1995 by the American Institute of Chemical Engineers. Subscribers are requested to give prompt notification of any change of address. Postmaster: Send changes of address to *AIChE Journal*, 345 East 47th St., New York, NY 10017.

**Authorization to photocopy** items for internal or personal use, or the internal or personal use of specific clients, is granted by AIChE for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that \$3.00 per article plus \$1.50 per copy is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923. This consent does not extend to copying for general distribution, for advertising or promotional purposes, for inclusion in a publication, or for resale. Articles published before 1988 are subject to the same copyright conditions and the fee for each article is \$3.00 plus \$1.50 per copy. *AIChE Journal* fee code: 0001-1541/95 \$3.00 per article plus \$1.50 per copy.