## AICHE JOURNAL

MARCH 1987 • VOL. 33, NO. 3

Other \$90

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** 

Morton M. Denn

**MANAGING EDITOR** 

Haeja L. Han

**EDITORIAL ASSISTANTS** 

Margaret R. Ferraro Karen M. Simpson

**CONSULTING EDITORS** 

**Richard Alkire** 

Electrochemical Engineering

**Bruce Finlayson** 

Computation

Louis Hegedus

Catalysis/Surface Science

**Dennis Hess** 

Electronic Materials

Sheldon Isakoff

Materials

Roy Jackson

Transport Processes

L. Gary Leal

Transport Processes

John Riggs

Materials

Eli Ruckenstein

Transport Processes

Stanley Sandler

Thermodynamics

John Seinfeld

Aerosols/Atmospheric Science

**Reuel Shinnar** 

Reaction Engineering

Michael Shuler

Biochemical Engineering

George Stephanopoulos

Systems/Design

**PUBLISHER** 

J. C. Forman

PUBLICATIONS DIRECTOR
Diane Foster

## **New Handbook**

## Handbook of Aqueous Electrolyte Thermodynamics: Theory and Application

Joseph F. Zemaitis Jr., Diane M. Clark, Marshall Rafal and Noel C. Scrivner

(A publication of the Design Institute for Physical Property Data)

A new and unique source of recommended calculations and thermodynamic data systematically presented to assist the engineer in solving important industrial problems.

The user of this handbook will find a systematic presentation of electrolyte thermodynamics—from basic definitions of equilibrium constants of ionic reaction—to prediction of activity coefficients of various species in multicomponent aqueous solutions of strong and/or weak electrolytes and the resulting phase equilibria calculations techniques.

Important applications include:

Pollution Control Petroleum Engineering

Hydrometallurgical Processes Seawater Desalination Synthetic fuel Processes Ion Exchange

Bioengineering Process Simulation
Corrosion Prevention Crystallization from Solution

Plating Processes

An important publication for the engineer's desk or work station and industrial, academic and research libraries.

The NBS Special Publication 685: Compiled Thermodynamic Data Sources for Aqueous and Biochemical Systems: An Annotated Bibliography 1930–1983) is included.

1986 852 pp. ISBN 0-1869-0350-6 LC 86-3628 Pub X114 Hardcover

Sponsors \$45 AIChE Member \$65

Foreign Extra: \$8

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 Morton M. Denn, at the Dept. of Chemical Engineering, University of California, Berkeley, CA 94720, Phone (415) 643-6591. The statements and opinions in the AIChE Journal are those of the contributors, and AIChE assumes no responsibility for them. Annual subscription rates: \$275 for nonmembers, \$40 for members; outside U.S., add \$13 for postage. Single copies: \$30; outside U.S., add \$2 for postage. Second-class postage paid at New York, NY and additional mailing offices. Copyright 1987 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 the \$3.00 per copy fee is paid directly to CCC, 21 Congress St., Salem, MA 01970. 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 1987 are subject to the same copyright conditions and the fee for

each article is \$2.00. AIChE Journal fee code: 0001-1541/87 \$3.00.