

The A.I.Ch.E. Journal, an official publication of the American Institute of Chemical Engineers, is devoted in the main to theoretical developments and research in chemical engineering and allied branches of engineering and science. Manuscripts should be submitted to the New York office.

PUBLISHER

F. J. Van Antwerpen

EDITOR

Harding Bliss

MANAGING EDITOR

Sylvia Fourdrinier

MANUSCRIPT EDITOR

Barbara Z. Goldsamt

ADVERTISING MANAGER

P. A. Jolcuvar

ADVISORY BOARD

C. M. Cooper	R. H. Newton
O. E. Dwyer	R. L. Pigford
W. C. Edmister	E. L. Piret
E. R. Gilliland	J. M. Smith
A. N. Hixson	Theodore Vermeulen
W. R. Marshall, Jr.	R. R. White
	R. H. Wilhelm

Publication Office, 215 Canal Street, Manchester, New Hampshire. Published in March, May, July, September, and November by the American Institute of Chemical Engineers, 345 East 47 Street, New York 17, New York. Manuscripts and other communications should be sent to the New York office. Correspondence with the editor may be addressed to him at Yale University, 225 Prospect Street, New Haven 11, Connecticut. Statements and opinions in the *A.I.Ch.E. Journal* are those of the contributors, and the American Institute of Chemical Engineers assumes no responsibility for them. Subscriptions: one year, member \$6.00; nonmember \$25.00; additional yearly postage, Canada 50 cents, Pan American Union \$1.50, other foreign \$2.00 (foreign subscriptions payable in advance). Single copies: \$6.00. Second-class mail. Postage paid at Manchester, New Hampshire. Copyright 1962 by the American Institute of Chemical Engineers. National headquarters of A.I.Ch.E. is concerned about nondelivery of copies of the *A.I.Ch.E. Journal* and urgently requests subscribers to give prompt notification of any change of address. Sixty days must be allowed for changes to be made in the records.

Postmaster: Please send form 3579 to A.I.Ch.E. Journal, 345 East 47 Street, New York 17, N. Y.

- | | |
|--|-----|
| Pity the Poor Porpoise | 147 |
| Sprays Formed by Flashing Liquid Jets <i>Ralph Brown and J. Louis York</i> | 149 |
| Heat Transfer to Pseudoplastic Fluids in Laminar Flow
<i>E. B. Christiansen and S. E. Craig, Jr.</i> | 154 |
| Prediction of Vapor-Liquid Equilibria of Binary Systems: Part I. Effect of Pressure on Vapor-Liquid Equilibria of Binary Systems
<i>Mikio Tamura and Isamu Nagata</i> | 161 |
| Prediction of Vapor-Liquid Equilibria of Binary Systems: Part II. Hydrocarbon Systems <i>Mikio Tamura and Isamu Nagata</i> | 163 |
| The Effect of Column Length on Separation in Thermogravitational Thermal Diffusion Columns <i>Carl F. Crownover and John E. Powers</i> | 166 |
| Gas Absorption Accompanied by Chemical Reaction: A Study of the Absorption of Carbon Dioxide in Aqueous Solutions of Monoethanolamine
<i>R. E. Emmert and R. L. Pigford</i> | 171 |
| The Properties of Some New Gas Hydrates and Their Use in Demineralizing Sea Water <i>Allen J. Barduhn, Howard E. Towlson, and Yee Chien Hu</i> | 176 |
| Kinetics of the Catalytic Dehydration of Primary Alcohols
<i>Donald N. Miller and Robert S. Kirk</i> | 183 |
| Design and Evaluation of a New Body for Falling Cylinder Viscometers
<i>John Lohrenz and Fred Kurata</i> | 190 |
| The Photochlorination of Chloroform in Continuous Flow Systems
<i>James E. Huff and Charles A. Walker</i> | 193 |
| Thermal Cracking of Ethane and Ethylene in a Stock Tube
<i>I. F. Miller and S. W. Churchill</i> | 201 |
| The Effect of the Hydrolysis Reaction Upon the Rate of Absorption of Chlorine into Water <i>P. L. T. Brian, J. E. Vivian, and A. G. Habib</i> | 205 |
| Experimental Determination of Critical Temperatures and Pressures of Mixtures: the Methane-Ethane-n-Butane System .. <i>J. Charles Forman and George Thodos</i> | 209 |
| A Unified Vectorial Approach to Difference Point Methods in Stagewise Operations
<i>Robert Lemlich and Ralph A. Leonard</i> | 214 |

(Continued on page 146)