

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 Fourdriner

ADVERTISING MANAGER

William Chenoweth

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 January, March, May, July, September, and November by the American Institute of Chemical Engineers, 345 East 47 Street, New York, New York, 10017. 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. Subscription: one year, member \$6.00; non-member \$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 1965 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, N. Y. 10017.

Books	386
Help, Help, Mr. Webster!	387
The Prediction of the Viscosity of Multicomponent, Nonpolar Gaseous Mixtures at Atmospheric Pressure	389
Stagnation in a Fluid Interface: Properties of the Stagnant Film R. L. Merson and J. A. Guinn	391
Longitudinal Dispersion in Pulsed Perforated-Plate Columns Terukatsu Miyauchi and Haruhiko Oya	395
Films of Non-Newtonian Fluids Adhering to Flat Plates Chaim Gutfinger and John A. Tallmadge	403
Coalescence of Liquid Droplets in Two-Component—Two-Phase Systems: Part I. Effect of Physical Properties on the Rate of Coalescence; Part II. Theoretical Analysis of Coalescence Rate	413
The Mixed Suspension, Mixed Product Removal Crystallizer as a Concept in Crystallizer Design	424
Bounded and Patched Solutions for Boundary Value Problems	431
Significance of Pressure Gradients in Porous Materials: Part I. Diffusion and Flow in Fine Capillaries	435
Significance of Pressure Gradients in Porous Materials: Part II. Diffusion and Flow in Porous Catalysts	439
Significance of Pressure Gradients in Porous Materials: Part III. Effect of Pressure Gradients on the Effectiveness of Porous Catalysts Seiya Otani, Noriaki Wakao, and J. M. Smith	446
A Matrix Method for Location of Cycles of a Directed Graph	450
The Effect of Concentration on Diffusion Coefficient in Polymer Solutions Robert M. Secor	452
Vapor-Liquid Equilibria in Hydrogen-Benzene and Hydrogen-Cyclohexane Mixtures	457
An Analysis of Fully Developed Laminar Flow in an Eccentric Annulus William T. Snyder and Gerald A. Goldstein	462
Normal Stress and Viscosity Measurements for Polymer Solutions in Steady Cone-and-Plate Shear	467
The Stability of Nonlinear Systems in the Region of Linear Dominance I. A. Gura and D. D. Perlmutter	474
Local Rates of Mass Transfer from Spheres in Ordered Arrays John M. Rhodes and Fred N. Peebles	481

(Continued on page 386)