nuclear reactor applications are discussed. **The Heat, Mass Transfer Characteristics of Evaporative Coolers,** Robert O. Parker and Robert E. Treybal. A new mathematical model for evaporative coolers has been devised in which the performance is described in terms of two transfer coefficients. The differential equations have been integrated to yield results useful in the design and testing of these exchangers. **Condensing Coefficient Inside a Horizontal Tube Near Atmospheric Pressure,** John A. Myers and Harold F. Rosson. An experimental investigation was conducted to determine the effect of the presence of liquid condensate on the heat being transferred during the condensation of a pure substance inside a horizontal tube. Two theoretical equations are developed which describe the effect of condensate flow rate on the condensing coefficient. **On the Mechanism of Subcooled Nucleate Boiling, Part I: Preliminary Considerations,** S. G. Bankoff. A sequential rate process model for heat transfer in forced-convection subcooled nucleate boiling is proposed. Expressions are deduced for the quenching heat flux and for the mean amplitude of the velocity fluctuation in the liquid between the bubbles. **On the Mechanism of Subcooled Nucleate Boiling, Part II: Sequential Rate Process Model,** S. G. Bankoff. In this part temperature distributions through the single-phase turbulent core are calculated for Gunther's data. **The Effect of Trace Additives on the Heat Transfer to Boiling Isopropanol,** Thomas Dunskus and J. W. Westwater. A study was made of the effect of eleven organic substances of high molecular weight on the heat transfer to boiling isopropanol in the nucleate, transition, and film-boiling regimes. **Nucleate-Boiling Studies with Aqueous Thorium Oxide Slurries,** David G. Thomas. Nucleate-boiling heat transfer measurements were made with aqueous thorium oxide slurries. No phenomena were observed which could be attributed to the effect of the solid particles on the gross physical properties of the slurry. **Effects of Acceleration on Nucleate Pool Boiling,** Charles P. Costello and William E. Tuthill. This paper presents the results of an investigation undertaken to determine the effects of accelerations produced by centrifugal effects on pool boiling heat transfer to distilled water. The investigation was instigated to better understand the mechanisms of boiling heat transfer, as well as to obtain data for accelerating systems. **An Experimental Study of Partial Film Boiling Region with Water at Elevated Pressures in a Round Vertical Tube,** J. B. McDonough, W. Milich, and E. C. King. The experimental techniques by which the data were obtained and a description of the experimental loop, test section, sample reduction method, and analysis of experimental errors are described.

# Computer Program Abstracts

**Readers of the *A.I.Ch.E. Journal* who are interested in programing for machine computation of chemical engineering problems will find in each issue of *Chemical Engineerng Progress* abstacts of programs submitted by companies in the chemical process industries. Collected by the Machine Computation Committee of the A.I.Ch.E., these programs will be published as manuals where sufficient interest is indicated. The following abstracts have appeared this year:**

**CEP (June, 1961), p. 82**

Diffusion Coefficients by the Guoy Method (075)

Determination of the Constants of the Callendar-Van Dusen Equa-

## ERRATA

The factor, $\sqrt{2}$, should be included on the right side of the equation defining the equivalent diameter $D_e$ in the Notation for "An Experimentally Verified Theoretical Study of the Falling Viscometer," by John Lohrenz, G. W. Swift, and Fred Kurata, which appeared in the December, 1960, issue of the *A.I.Ch.E. Journal.*

In Equation (8) in "Chemical Reaction Processes in Two-Phase Systems: Theory and Experimental Results for Slow Chemical Reactions in Batch, Column, and Continuous Stirred Tank Reactor Operations," by Pierre Trambouze, M. T. Trambouze, and Edgar Piret, which appeared in the March, 1961, issue of the *A.I.Ch.E. Journal,* $a_1$ and $a_2$ should be in italics. In Equation (17) of the same paper the second term should be $da_2/dx$.

The parameter $\eta$ in "A Note on Transport to Spheres in Stokes Flow," by S. K. Friedlander, which appeared in the June, 1961, issue of the *A.I.Ch.E. Journal,* should be defined as follows:

$$\eta = \alpha^{-1/3} y_1 \sin x_1 / \left(\int_0^{x_1} \sin^2 x_1^1 \, d x_1^1\right)^{1/3}$$

Corrected Figure 5 for "Heat and Momentum Transport Characteristics of Non-Newtonian Aqueous Thorium Oxide Suspensions," by D. G. Thomas, which appeared in the December, 1960, issue of the *A.I.Ch.E. Journal,* appears below.