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mixing is some form of rotating impeller, driven by a shaft attached to a power-transmission device connected to an electric of other motor. **Mixing of Solids,** Sherman S. Weidenbaum. High lights of solids-mixing studies are given, based on a critical and interpretive review of American and foreign literature and other pertinent material. Degree of mixing, theoretical frequency distributions, rate studies, and equipment are discussed. Areas for future investigation are suggested. **Size Reduction,** Lincoln T. Work. The creation and control of particle size goes under many names, some pointing to the production of particles in a desired range of sizes. This paper will discuss the aspects of solids only, with particular reference to size reduction and some reference to size enlargement. **Drying—Its Status in Chemical Engineering in 1958,** W. R. Marshall, Jr. Historically, drying is one of the oldest operations in chemical engineering, and yet at this date its theoretical development has not progressed so far as many other chemical engineering operations. The objectives of a drying operation can be manifold, and it is difficult to name a common objective, other than moisture removal. Consequently, drying problems generally involve a variety of secondary objectives.

Errata

The equations given below are corrected versions of those published in "Heat Transfer in Cylinders with Heat Generation" by Leonard Topper, *A.I.Ch.E. Journal,* 1, 463 (1955). The help of Dr. P. J. Schneider and of Professor R. Byron Bird is acknowledged by the author.

$$\frac{t - t_s}{t_0 - t_s} = \sum_{n=1}^{\infty} N_n J_0(\lambda_n w) e^{-\lambda_n^2 (\alpha/sV)(x/s)} + \frac{Bs^2\left(1 + 2\dfrac{k}{sh} - w^2\right)}{4\alpha(t_0 - t_s)} \tag{7}$$

$$\frac{t - t_s}{t_0 - t_s} = 1 = \sum_{n=1}^{\infty} N_n J_0(\lambda_n w) + \frac{Bs^2\left(1 + 2\dfrac{k}{sh} - w^2\right)}{4\alpha(t_0 - t_s)} \tag{11}$$

$$N_n = \frac{2\dfrac{hs}{k}}{\left[\lambda_n^2 + \left(\dfrac{hs}{k}\right)^2\right] J_0(\lambda_n)} \left[1 - \frac{Bs^2}{\alpha\lambda_n^2 (t_0 - t_s)}\right] \tag{12}$$

$$\frac{t - t_s}{t_0 - t_s} = \frac{Bs^2\left(1 + 2\dfrac{k}{sh} - w^2\right)}{4\alpha(t_0 - t_s)} + 2\frac{hs}{k} \sum_{n=1}^{\infty} \frac{J_0(\lambda_n w) e^{-\lambda_n^2 (\alpha/sV)(x/s)}}{\left[\lambda_n^2 + \left(\dfrac{hs}{k}\right)^2\right] J_0(\lambda_n)} \left[1 - \frac{Bs^2}{\alpha\lambda_n^2 (t_0 - t_s)}\right] \tag{13}$$

$$t + \frac{B}{A} = \left(t_s + \frac{B}{A}\right) \frac{J_0\left[\left(\dfrac{As^2}{\alpha}\right)^{1/2} w\right]}{J_0\left[\left(\dfrac{As^2}{\alpha}\right)^{1/2}\right]}$$

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$$+\sum_{n=1}^{\infty}\left[\frac{2\left(t_0+\frac{B}{A}\right)}{\beta_n J_1(\beta_n)}+N_n\right]J_0(\beta_n w)\,e^{(x/V)[A-\alpha(\beta_n/s)^2]} \quad (14)$$

$$\frac{t-t_s}{t_0-t_s}=\frac{\left(t_s+\frac{B}{A}\right)}{(t_0-t_s)}\left\{\frac{J_0\left[\left(\frac{As^2}{\alpha}\right)^{1/2}w\right]}{J_0\left[\left(\frac{As^2}{\alpha}\right)^{1/2}\right]}-1\right\}$$

$$+\frac{2\left(t_s+\frac{B}{A}\right)}{(t_0-t_s)}\sum_{n=1}^{\infty}\frac{J_0(\beta_n w)\,e^{(x/V)[A-\alpha(\beta_n/s)^2]}}{\beta_n J_1(\beta_n)}$$

$$\cdot\left[\frac{\left(t_0+\frac{B}{A}\right)}{\left(t_s+\frac{B}{A}\right)}+1-\frac{\beta_n^2}{\left(\beta_n^2-\frac{As^2}{\alpha}\right)}\right] \quad (17)$$

$$\frac{t-t_s}{t_0-t_s}=\frac{\left(t_s+\frac{B}{A}\right)}{(t_0-t_s)}\left\{\frac{J_0\left[\left(\frac{As^2}{\alpha}\right)^{1/2}w\right]}{J_0\left[\left(\frac{As^2}{\alpha}\right)^{1/2}\right]-\frac{k}{sh}\left(\frac{As^2}{\alpha}\right)^{1/2}J_1\left[\left(\frac{As^2}{\alpha}\right)^{1/2}\right]}-1\right\}$$

$$+\frac{2\left(t_s+\frac{B}{A}\right)}{(t_0-t_s)}\frac{hs}{k}\sum_{n=1}^{\infty}\frac{J_0(\lambda_n w)\,e^{(x/V)[A-\alpha(\lambda_n/s)^2]}}{\left[\lambda_n^2+\left(\frac{hs}{k}\right)^2\right]J_0(\lambda_n)}$$

$$\cdot\left[\frac{\left(t_0+\frac{B}{A}\right)}{\left(t_s+\frac{B}{A}\right)}+1-\frac{\lambda_n^2}{\left(\lambda_n^2-\frac{As^2}{\alpha}\right)}\right] \quad (21)$$

The equation given below is the corrected version of that published in "Phase Equilibria in Mixtures of Polar and Nonpolar Compounds: Derived Thermodynamic Quantities for Alcohols and Hydrocarbons" by Cline Black, *A.I.Ch.E. Journal,* **5**, 249 (1959).

$$\log\theta_i=[(P-P_i^0)/2.3RT]\cdot[b_i-V_i'-a_i\xi_i^0/RT]+(P/2.3R^2T^2)[(\Sigma\, G_{ij}Y_j)^2+(\Sigma\,\overline{G}_{ij}Y_j)^2] \quad (2)$$

The notation given below is the corrected version of that published in "Thermodynamic Consistency of Binary Liquid-Vapor Equilibrium Data When One Component Is Above Its Critical Temperature" by S. B. Adler, Leo Friend, R. L. Pigford, and G. M. Rosselli, *A.I.Ch.E. Journal,* **6**, 108 (1960).

$$Z''\equiv Z^L+Z_1^g y_1(1/K_2-1/K_1)-Z^g/K_2$$