(Continued from page 562)

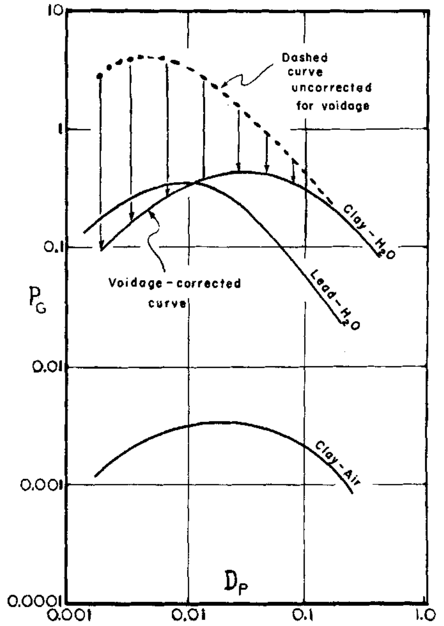

Fig. 3. Dispersive pressure curves of Figure 2 corrected for particle size effect on voidage.

persive pressure within their bottom surface of the magnitude given in Figure 3.

The existence of a dispersive pressure begs the question as to why it doesn't simply exert its influence and dilate the solids to the eventual destruction of any bubble. Since this does not happen in all cases, it is obvious that the magnitude of the dispersive pressure must be compared with the magnitude of whatever force it must move against to effect the dispersion. The first force against which the dispersive pressure must act is the weight of the uppermost layer of particles on the bottom surface of the bubble. The weight of this layer is simply $\rho_P(1-\epsilon)$ $D_P/12$ in units of lb./sq. ft. if ρ_P is expressed in lb./cu. ft. and D_P in inches. The voidage ϵ is again taken from published sources (*11*) corresponding therefore to the conditions on which the curves of Figure 3 are based. Figure 4 is a reproduction of Figure 3 with curves of $\rho_P(1-\epsilon)$ $D_P/12$ corresponding to clay catalyst and lead shot superimposed.

Note in Figure 4 that for the water-clay catalyst system the dispersive pressure curve intersects the single-particle-layer weight curve and that to the left of this intersection the dispersive pressure exceeds the layer weight.

To the left of this point of intersection the beds should dilate and no bubbles will be able to persist, whereas in beds of larger particle size the dispersive pressure cannot overcome the particle weight; hence bubbles will persist. Note that in accord with reported

(Continued on following page)

ERRATA

Equation (*1d*) of the article "Problem of Solidification with Newton's Cooling at the Surface" by Peter Hrycak (Vol. 9, No. 4, pp. 585-589) should read

$$-k_1\frac{\partial T_1}{\partial x} = -k_2\frac{\partial T_2}{\partial x} - \frac{d\xi}{dt}L, \qquad x = \xi$$

In the paper "On Stress-Relaxing Solids: Part III, Simple Harmonic Deformation" by Saul Vela, J. W. Kalb, and A. G. Fredrickson (Vol. 11, No. 2, pp. 288-294), Equation (14) should read

$$\Psi(\omega) = \int_0^\infty e^{-i\omega t}\,\psi(t)\,dt$$

The first line of Equation (19) should read

$$\Psi(\omega) = \int_0^\infty e^{-i\omega t}\,\psi(t)\,dt$$

In the paper "Mass Transfer in Horizontally Moving Stable Aqueous Foams" by Eugene Y. Weissman and Seymour Calvert (Vol. 11, No. 2, pp. 356-363), the first footnote on page 359 should begin with the term N_{tp}.