INFORMATION RETRIEVAL

Mass transfer in the laminar radial wall jet, Scholtz, M. T., and Olev Trass, A.I.Ch.E. Journal, 9, No. 4, p. 548 (July, 1963).

Key Words: A. Free Jet-1, Laminar Radial Wall Jet-2, Nozzle-4, Flat Plate-4, Water-5, Point Mass Transfer Coefficient-7, Mass Transfer-8, Impinging-. B. Mass Transport Equation-1, Integral Mass Balance-1, Exact Solution-2, Approximate Solution-2, Boundary Layer Theory-8. C. Acetanilide-4, Benzoic Acid-4, Carboxymethylcellulose-5, Reynolds Number-6, Schmidt Numbers-6, Mass Transfer Coefficient-7, Coatings-9, Thickness Decrease-10. D. Separation-3, Toroidal Vortex-3.

Abstract: Data are reported for mass transfer from a flat plate under the influence of a laminar, radial wall jet initiated by a free jet of water. An exact solution of the mass transport equation was obtained as well as an approximate solution of the integral mass balance equation. Point mass transfer data were obtained by measuring the thickness decrease of coatings of acetanilide and benzoic acid. In the Reynolds number and Schmidt number range studied, data were in good agreement with theory. Boundary-layer separation and the formation of a toroidal vortex were observed at lower Reynolds numbers.

6. Electrophoresis—by R. K. Finn (43 pages + 50 ref.)

The difference in rates of migration of particles in a fluid under the influence of an electric field may be used to separate constituents of mixture under certain conditions. This less familiar phenomena and process are discussed very briefly from a theoretical standpoint, and a more extensive treatment of the various types of equipment used in the laboratory and in large-scale practice follows. Some useful general directions are given to those wishing to investigate electrophoresis for applications or research.

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5. Foam Separation—by E. Rubin and E. L. Gaden, Jr. (66 pages + 135 ref.)

A brief discussion of surface phenomena in liquids, adsorption, and the physical chemistry of foams is followed by a practical discussion of methods of preparing and using foams and the

types of equipment usable to concentrate solutes in a foam phase for industrial use. An extensive table of examples of useful separations made by this technique is included with references. An engineering type model of a foam separation system is presented which is intended to assist in design and in the interpretation of data.

ERRATUM

In Equation (5) of the article "Drying of Air by Fixed Bed Adsorption with Molecular Sieves" by J. I. Nutter and George Burnet, which appeared on page 204 of the March, 1963, issue of the A.I.Ch.E. Journal, there should not be a minus sign before the right-hand side of the equation.