## **NOMENCLATURE**

 $A_i$  = interfacial area, sq. ft.

 $D_{O_{ij}}$  = Chapman-Cowling diffusion coefficient for components k and j, sq. ft./sec.

 $D_{F,0}$  = Fick diffusion coefficient for *n*-butane, sq. ft./sec.  $D_{F,0}$  = Fick diffusion coefficient for *n*-decane, sq. ft./sec.

m = total material, lb.

 $\overline{V}$  = specific volume, cu. ft./lb.

 $\nabla$  = partial specific volume of a component, cu. ft./lb.

 $\Delta$  = difference in

 $\sigma_k$  = concentration of component k, lb./cu. ft.

 $\theta = \text{time, sec.}$ 

### Subscripts

b = property evaluated at bubble-point conditions

c =transport into the cell

d = property evaluated at dew-point conditions

j = component j, the less volatile, or stagnant, component

k = component k, the more volatile, or diffusing, component

l = liquid phase

o = initial conditions

1,2 = state or condition

### Superscript

\* = average value of a property over the process considered

#### LITERATURE CITED

- (1) Am. Petroleum Inst., Research Project 44, Petroleum Research Laboratory, Carnegie Institute of Technology, "Selected Values of Properties of Hydrocarbons and Related Compounds."
- (2) Chapman, Sydney, Cowling, T.G., "The Mathematical Theory of Non-Uniform Gases," 2nd ed., University Press, Cambridge, England, 1952.

- (3) Kirkwood, J.G., Crawford, B., Jr., J. Phys. Chem. 56, 1048 (1952).
- (4) Meyers, C.H., Bur. Standards J. Research 9, 807 (1932).
- (5) Olds, R.H., Reamer, H.H., Sage, B.H., Lacey, W.N., Ind. Eng. Chem. 36, 282 (1944).
- (6) Olds, R.H., Sage, B.H., Lacey, W.N., "Fundamental Research on Occurrence and Recovery of Petroleum, 1948-1949," pp. 25-42, Am. Petroleum Inst., 1950.
- (7) Pomeroy, R.D., Lacey, W.N., Scudder, N.F., Stapp, F.P., Ind. Eng. Chem. 25, 1014 (1933).
- (8) Reamer, H.H., Lower, J.H., Sage, B.H., J. CHEM. Eng. Data 9, 54 (1964).
- (9) Reamer, H.H., Olds, R.H., Sage, B.H., Lacey, W.N., Ind. Eng. Chem. 34, 1526 (1942).
- (10) Reamer, H.H., Opfell. J.B., Sage, B.H., Ind. Eng. Chem. 48, 275 (1956).
- (11) Reamer, H.H., Sage, B.H., Lacey, W.N., Ibid. 38, 986 (1946).
- (12) Reamer, H.H., Sage, B.H., J. CHEM. ENG. DATA 4, 296 (1959).
- (13) Ibid. 6, 481 (1961).
- (14) Ibid. 9, 24 (1964).
- (15) Reamer, H.H., Sage, B.H., Rev. Sci. Instr. 29, 709 (1958).

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# **CORRECTION:**

In the article "Synthesis of N-(3'-Chloro-4'-methylphenyl)-2-methylpentanamide-1-C<sup>14"</sup> by S.E. Forman and C.A. Erickson [J. Chem. Eng. Data 9, 400 (1964)], a block of type has been inadvertently transposed. In column 1, page 401, under the bold heading N-(3'-Chloro-4'-methylphenyl)-2-methylpentanamide-1-C<sup>14</sup>(VII), the material beginning with the eleventh line, "the aqueous solution was extracted with ether. This ether," through the twenty-second line, "by GPC and I.R. spectroscopy," should have appeared just before the bold heading and following the line, "that the chemical yield of IV was 77%. After acidification,".

# **CORRECTION:**

In the article "A Study of the System  $CaCl_2$ - $ZnCl_2$ - $H_2O$  (NaCl Saturated) at 15° C." by E.P. Helvenston and E.A. Cuevas [J. Chem. Eng. Data 9, 321 (1964)], in the third line of the Abstract, the weight per cent given for NaCl solubility should be 2.5 rather than 25%.