$$\frac{d\omega_s}{dt} = \frac{\nu_1 + \mu_1\beta_2}{1 - \alpha_2\mu_1} = \frac{\nu_2 + \mu_2\beta_1}{1 - \alpha_1\mu_2} = \frac{\beta_1 - \beta_2}{\alpha_2 - \alpha_1}$$

where the Greek letters have meanings for the ether phase, analogous to the Roman letters for the aqueous phase. Written in the above manner, there is no chance of mistaking the curve to which the partial derivatives refer. We readily see that in our notation,

$$\frac{dR}{dt} = \frac{1}{\sigma_s}\left(\frac{a_2b_1 - a_1b_2}{a_2 - a_1} - R.\ \frac{\alpha_2\beta_1 - \alpha_1\beta_2}{\alpha_2 - \alpha_1}\right)$$

or if we retain some of the letters, n_1, n_2, m_1, m_2, etc., we obtain the expression

$$\frac{dR}{dt} = \frac{1}{\sigma_s}\left(\frac{b_1 + a_1n_2}{1 - a_1m_2} - R.\ \frac{\beta_1 + \alpha_1\nu_2}{1 - \alpha_1\mu_2}\right)$$

identical, of course, with the one given by Forbes and Coolidge when the proper interpretation is given to the letters used by them.

MINNEAPOLIS, MINN.

RELATIONS BETWEEN DISTRIBUTION RATIO, TEMPERATURE AND CONCENTRATION IN SYSTEM: WATER, ETHER, SUCCINIC ACID.

BY G. S. FORBES AND A. S. COOLIDGE.

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F. H. MacDougall, in the preceding article, points out the possibility of misunderstanding the physical significance of certain partial derivatives in our paper as published in THIS JOURNAL.[1] He shows how confusion may be rendered impossible by use of a more elaborate set of symbols. On page 161 of our article directions are given for finding the derivatives by drawing tangents to the intersecting curves in Fig. 3 and reading the slopes. The values given for the slopes will identify the derivatives beyond question even if doubt previously existed concerning them. We are glad to note that Professor MacDougall agrees with our final conclusion.

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[1] 41, 150 (1919).