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*Letter to the Editors*

# Reflection Coefficients in Red Cells

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Milgram and Solomon (1977) reported Owen and Eyring's (1975) value for reflection coefficients, $\sigma$, in human red cells were in error by 33 %. Their concern is similar to Levitt's (1974) and Owen and Eyring's when they re-examined Goldstein and Solomon's (1960) $\sigma$ data, i.e., $\sigma$ will be incorrect unless determined at time zero (Kedem & Katchalsky, 1958). Determining $\sigma$ at times greater than zero should tend to underestimate $\sigma$, and Solomon, Milgram and Kirkwood (1975) reported that Goldstein and Solomon's $\sigma$ value was underestimated by 10–20 %. This corresponds to Goldstein and Solomon's $\sigma$ for urea of 0.62 being corrected to 0.68–0.74. This revised $\sigma$ is very close to Owen and Eyring's $\sigma$ of 0.79, so it is difficult to see where there is any controversy. Also, computer-simulated red cell shrinking/swelling data (Owen, 1976) for a $\sigma$ other than 0.79 does not agree with the experimental results, and similar theoretical red cell data (Owen & Galey, 1977) does not rule out the possibility that $\sigma$ is 0.79.

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