Copy of a printed graph referenced as "Determination of sedimentation constant-calculation"

Contributors

Coombes, Dr.

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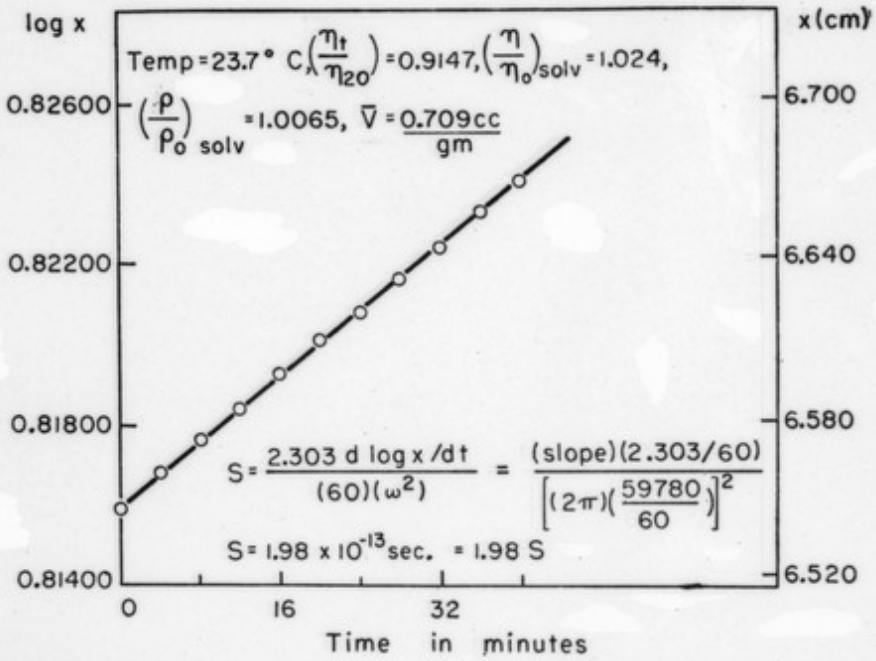
Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
https://wellcomecollection.org

sedimentation coefficients for each time interval and correct them independently for temperature, assuming a linear change in temperature. For maximum use of the data, the averaging of the resulting sedimentation coefficients should be performed in the manner suggested by Kegeles and Gutter.[7] Alternatively, the times between photographs can be corrected for the variation of the viscosity of water with temperature, as suggested by Oncley,[9] and then log x can be plotted against the corrected times.



Determination of sedimentation coefficient of ribonuclease from a plot of log x (x is the distance of boundary to axis of rotation) versus t (t is the time in minutes).

Sedimentation coefficients are generally reported as $s_{20,w}$, the value the material would have in a solvent with the density and viscosity of water at 20°. Corrections of the observed sedimentation coefficient, $s_{obs.}$, to this standard state are made according to the equation

$$s_{20,w} = s_{obs.} \left(\frac{\eta_t}{\eta_{20}}\right)\left(\frac{\eta}{\eta_0}\right)\left(\frac{1 - \bar{V}\rho_{20,w}}{1 - \bar{V}\rho_t}\right) \tag{6}$$

where (η_t/η_{20}) is the principal correction factor corresponding to the viscosity of water at $t°$ relative to that at 20°, (η/η_0) is the relative