TABLE 2.1

Some Diffusion Coefficients[a]

Substance	Molecular/ionic weight	Temperature (°C)	Diffusion coefficient (D) ($\times 10^{-5}$)
H_2	2	21	5.2
O_2	32	18	2
Na^+	23	25	1.33
K^+	39	25	1.96
Cl^-	35.5	25	2.03
I^-	127	25	2.04
SO_4^{2-}	96	25	1.06
Water	18	20	2.1
Urea	60	20	1.2
Glucose	180	20	0.6
Lactose	342	20	0.43
Raffinose	504	20	0.36
Insulin	12,000	20	0.15
Myoglobin	17,500	20	0.11
Hemoglobin	68,000	20	0.063
Urease	490,000	20	0.034
Tobacco mosaic virus	4×10^7	20	0.0053

[a] Values are for diffusion in water in dilute solutions. Data for D in $cm^2\ sec^{-1}$.

The data were taken from tables compiled by R. Höber (1947) "Physical Chemistry of Cells and Tissues" Churchill, London, and F. Daniels and R. A. Alberty (1961) "Physical Chemistry" Wiley, New York.