

TABLE 2.3

**Activation Energies for Diffusion and Viscous Flow
in Water**

Process	Diffusant	Molecular weight	E_{act} (kJ mol ⁻¹)
Diffusion	Water	19–20	19.2 ^a
Diffusion	Urea	60	18.7 ^b
Diffusion	Glycine	75	19.4 ^b
Diffusion	Alanine	131	20.0 ^b
Diffusion	Glucose	180	20.7 ^b
Diffusion	Cyclohepta- amylose	1370	20.6 ^b
Diffusion	Bovine serum albumin	66,500	20.8 ^b
Viscous flow	—	—	17.7 ^c

^a Wang *et al.* (1953) for diffusion of H²HO and H³HO at 25°C.

^b Longsworth (1953) at 19°C.

^c Computed for 19°C from data collected by Dorsey (1929).