Table I. Hydraulic or water permeabilities (*Lp*), mixing time of the osmotic chambers, and time taken to reach 50% of the final cell volume variation.

Equipment used for cell volume variation measurement	Kind of cells	Mixing time (50% mixing)	Time to reach 50% of the final cell volume variation	Lp ($m \cdot s^{-1} \cdot Pa^{-1}$)	*T* (°C)
Diffusion chamber + microscopy (Morris et al., 1986)	*S. cerevisiae*		15–30 s		20
Centrifugation + microscopy (Niedermeyer et al., 1977)	*S. cerevisiae*		15 min		25
Mixing chamber + coulter counter (Gélinas et al., 1991)	Protoplasts of *S. cerevisiae*		3.7 s	1.97×10^{-15}	23
Mixing chamber + coulter counter (Hempling, 1977)	Lymphocytes		5 s	5.6×10^{-14}	25
	Erythroblastic leukemic cells		1 s	8.9×10^{-13}	25
Stopped flow + microscopy (Diller and Bradley, 1984)	Granulocytes	1 s	2.77 s	1.9×10^{-13}	25
Stopped flow + light scattering (Terwilliger and Solomon, 1981)	Human red cells		0.35 s	1.7×10^{-12}	23
Stopped flow + light scattering (Sidel and Solomon, 1957)	Red cells		0.47 s	9.4×10^{-13}	25
Mixing chamber + Light scattering (Fischbarg et al., 1993)	Epithelial cells	1.7 s	2 s		37
Stopped flow + light scattering (Alemohammad and Knowles, 1974)	*E. coli*		0.075 s		25
Mixing coulter counter (Reed, 1984)	*C. emersonii*		15–30 s		25
Microscopy (Leibo, 1980)	Mouse ova		45 s	7.1×10^{-14}	20
Stopped flow + EPR (Du et al., 1994)	Human spermatozoa		2 s	3.8×10^{-13}	20
Mixing + microscopy (Lin et al., 1989)	*D. melanogaster* embryos	29 s	80 s	1.2×10^{-13}	20

Determined with different devices, different cellular types and different temperatures.