Table 1 Water permeabilities of cells and membranes from plants and animals

Species	Tissue	System[a]	Permeability (10^{-4} cm • s^{-1})[b]	Method	Reference
	Materials and measurement techniques				
Chara corallina	Internode	Cell	P_f: 260 ± 72	Pressure probe	34
			P_f: 243 ± 15	Transcellular osmosis	121
Elodea nuttallii	Leaf	Cell	P_d >300	^{1}H-NMR	110
Elodea densa	Leaf lower epidermis	Cell	P_f: 19.0 ± 3.1 (P<4 bar)	Pressure probe	109
			P_f: 7.5 ± 2.7 (P>4 bar)		
Pisum sativum	Epicotyl epidermis	Cell	P_f: 3–30	Pressure probe	13
	Epicotyl cortex	Cell	P_f: 50–1200	Pressure probe	13
	Cell, plasma membrane and endomembranes				
Chara australis	Internode	Cell	P_f: 97 ± 17	Transcellular osmosis	58
		PM	P_f: 94 ± 13	Transcellular osmosis	
Allium cepa	Bulb inner epidermis	Cell	P_f: 6–8	Deplasmolysis	113
		Vacuole	P_f: 40–540	Deplasmolysis	
Nicotiana tabacum	Cell suspension	PM ves.	P_f: 6.2 ± 0.4	Stopped-flow	[c]
		TP ves.	P_f: 659 ± 83	Stopped-flow	
Apple	Fruit parenchyma	Vacuole	P_d: 24.4	^{1}H-NMR	100
Liriodendron tulipifera	Leaf	Chloroplast envelope	P_d: 9 ± 2	^{1}H-NMR	77
	Animal cell membranes				
Hog	Stomach	PM ves.	P_f: 2.8 ± 0.3	Stopped-flow	116
Toad	Bladder	Apical membrane ves.	P_f: 3.9 ± 0.4 (– vasopressin)	Stopped-flow	116
			P_f: 450 (+ vasopressin)	Stopped-flow	
Human	Erythrocyte	PM ves.	P_f: 230 ± 30	Stopped-flow	71
	P_f/P_d of plant membranes				
Valonia ventricosa	—	Cell	P_f: 2.4 ± 0.3	Transcellular osmosis	28
			P_d: 2.4 ± 0.2	Tracer flow	
Chara corallina	Internode	Cell	P_f: 260 ± 72	Pressure probe	34
			P_d: 7.7 ± 3	Pressure probe	

[a]PM, Plasma membrane; TP, tonoplast; ves., vesicles.

[b]P_d: Diffusional water permeability coefficient; P_f: osmotic water permeability coefficient. When not provided by the authors, P_f values were derived, for comparison with other P_f values, from the indicated L_p values according to Equation 3, with T = 293 K. P_f and P_d values are indicated ± SD.

[c]C Maurel, F Tacnet, J Güclü, J Guern & P Ripoche, unpublished manuscript