

Table 1. Passive CO₂ fluxes in four diatoms

Diatom	f_c (cm ³ /s)	f_{c-BL} (cm ³ /s)	f_{c-M} (cm ³ /s)	P_c (cm/s)
<i>P. tricornutum</i>	$2.3 \pm 0.4 \times 10^{-8}$	7.7×10^{-8}	$3.3 \pm 0.4 \times 10^{-8}$	$3.1 \pm 0.4 \times 10^{-2}$
<i>T. weissflogii</i>	$6.3 \pm 3.2 \times 10^{-8}$	1.5×10^{-7}	$1.1 \pm 0.3 \times 10^{-7}$	$2.4 \pm 0.7 \times 10^{-2}$
<i>T. pseudonana</i>	$1.8 \pm 0.6 \times 10^{-8}$	5.0×10^{-8}	$2.8 \pm 0.6 \times 10^{-8}$	$5.6 \pm 1.1 \times 10^{-2}$
<i>T. oceanica</i>	$1.4 \pm 0.2 \times 10^{-8}$	7.5×10^{-8}	$1.7 \pm 0.2 \times 10^{-8}$	$1.5 \pm 0.2 \times 10^{-2}$

The CO₂ influx, described by the cellular transfer coefficient f_c (\pm SD), is limited by diffusion through the boundary layer (f_{c-BL}) and passage through the membrane (f_{c-M}). The cytoplasmic membrane permeability to CO₂ ($P_c \pm$ SD) is derived from f_{c-M} . At least four replicate measurements were made on each organism. Errors were propagated based on the error in f_c measurements.