

Table 2. Passive HCO₃⁻ fluxes in four diatoms

Diatom	f_b (cm ³ /s)	f_{b-BL} (cm ³ /s)	f_{c-M} (cm ³ /s)	P_b (cm/s)
<i>P. tricornutum</i>	$0.4 \pm 1.1 \times 10^{-11}$	4.6×10^{-8}	$0.4 \pm 1.1 \times 10^{-11}$	$0.4 \pm 1.0 \times 10^{-5}$
<i>T. weissflogii</i>	$1.3 \pm 1.2 \times 10^{-10}$	8.9×10^{-8}	$1.3 \pm 1.2 \times 10^{-10}$	$2.9 \pm 2.7 \times 10^{-5}$
<i>T. pseudonana</i>	$1.3 \pm 2.0 \times 10^{-12}$	3.0×10^{-8}	$1.3 \pm 2.0 \times 10^{-12}$	$2.5 \pm 3.9 \times 10^{-6}$
<i>T. oceanica</i>	$0.7 \pm 1.7 \times 10^{-11}$	4.4×10^{-8}	$0.7 \pm 1.7 \times 10^{-11}$	$0.6 \pm 1.5 \times 10^{-5}$

The HCO₃⁻ influx, described by the cellular transfer coefficient f_b (\pm SD), is limited by diffusion through the boundary layer (f_{b-BL}) and passage through the membrane (f_{b-m}). The cytoplasmic membrane permeability to HCO₃⁻ ($P_b \pm$ SD) is derived from f_{b-m} . At least four replicate measurements were made on each organism. Errors were propagated based on the error in f_b measurements.