

Table 3. Model evaluation

Process	Transport rate	Residual	[CO ₂] _p	Fold [CO ₂] rise
Vectorial CA activity	4.2×10^{-16}	1.6×10^{-18}	2.5	0.5
CO ₂ transport into cytoplasm	1.3×10^{-16}	2.2×10^{-18}	7.0	1.4
CO ₂ transport into chloroplast	1.1×10^{-16}	4.8×10^{-18}	16.1	3.2
HCO ₃ ⁻ transport into chloroplast	1.0×10^{-16}	9.8×10^{-18}	13.7	2.7

Parameters used to evaluate the models were the rate of transport (mol/cell per s) required to best explain the data, the residual error in the fit, and the concentration of CO₂ in the chloroplast (μM). The fold rise in CO₂ is relative to the 5 μM extracellular CO₂ in this assay.