Table I. *Substrate levels during H_2 production in C. reinhardtii*

Values correspond to 1-L cultures with densities of 6×10^6 cells/mL at the time of sulfur deprivation ($t = 0$ h). H_2 volume (mL) conversion to molarity (mmol) at 25°C assumed 29.97 L/mol at NREL (atmospheric pressure of 620 mm Hg at 1,600-m altitude) and 24.45 L/mol at Berkeley (atmospheric pressure of 760 mm Hg at sea level). Protein weight conversion to moles assumed an average amino acid molecular mass of 110 g/mol.

Substrate	Amount upon S Deprivation (0 h)	Amount upon Culture Sealing	Amount after 80 h of H_2 Production	Change[a] during H_2 Production
H_2, mL	0	0	140	+140
H_2, mmol	0	0	4.67	+4.67
CO_2, mmol	1.77	1.25	3.5	+2.25
Acetate, mmol	15	7.6	8.2	+0.6 (+8%)
Protein, mmol amino acids	1.36	2.00	0.97	−1.03 (−52%)
Starch, mmol Glc	16×10^{-3}	52×10^{-3}	39×10^{-3}	-13×10^{-3} (−25%)

[a] Change is defined as the absolute (or % in parentheses) difference between the entries of columns 4 and 3.