Electronic Supplementary Material (ESI) for Sustainable Energy & Fuels
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Balancing algal photosynthesis, O_2 consumption and H_2 recycling for sustained H_2 photoproduction in pulse-illuminated algae

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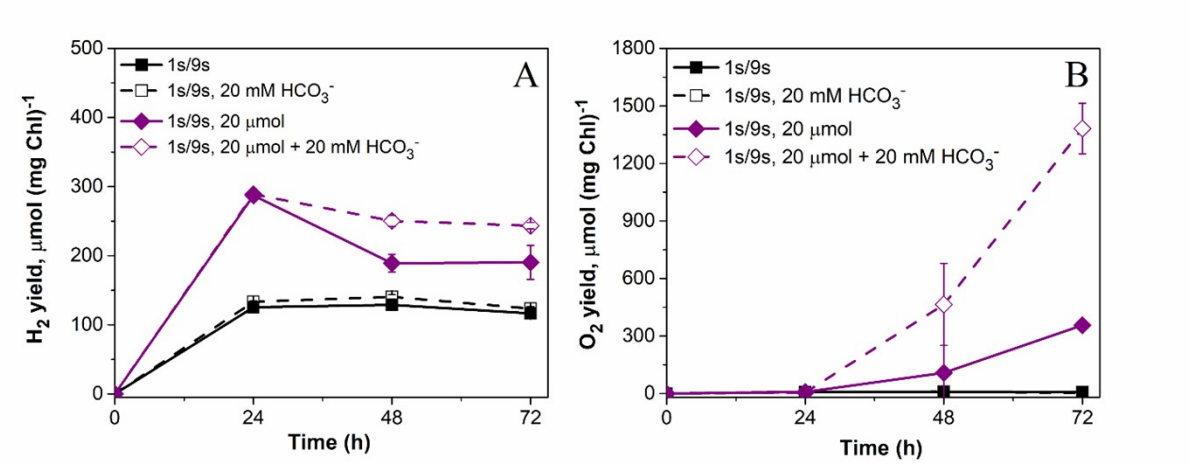
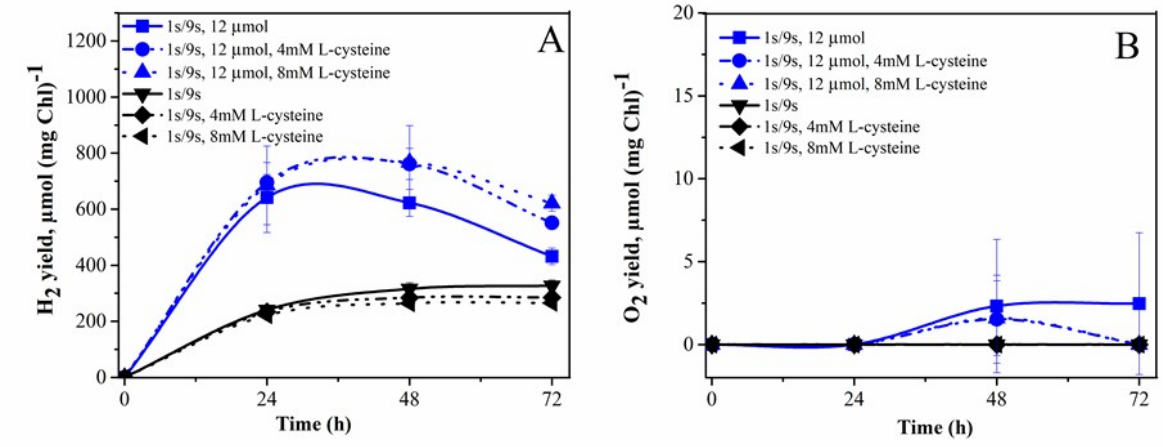


Suppl. Fig. 1 The effect of bicarbonate supplementation on (A) net H_2 photoproduction and (B) net O_2 evolution yields under the train of 1 s light pulses (280 µmol m^{-2} s^{-1} irradiance) superimposed on either 9 s darkness or continuous 20 µmol m^{-2} s^{-1} background light. The initial cultures contained 12 µg Chl (a + b) ml^{-1}. The experiments were performed under photoheterotrophic conditions. Each experimental point represents the average of 3 independent replicates ± SD.



Suppl. Fig. 2 Effect of different concentrations of L-cysteine on (A) net H_2 photoproduction and (B) net O_2 evolution by pulse-illuminated algae with 12 µmol m^{-2} s^{-1} background illumination (blue curves and symbols) and without (black curves and symbols). The experimental settings were the same as in Fig. 1. Values are the mean of 3 independent replicates ± SD.