

1 Supplementary material

2 Fig. 1S. Kinetics of H₂ photoproduction by *Anabaena* PCC 7120 (A) and $\Delta hupL$ (B) cells entrapped in
3 thin Ca²⁺-alginate films under Ar, Air or N₂ atmospheres supplemented with 6% CO₂. Arrows indicate
4 the points of atmosphere regeneration in the vials. The average values from three films are presented \pm
5 the SD.

6 Fig. 2S. Growth of cells starting at different initial cell densities. The suspension cultures were grown
7 diazotrophically in 24-well plates under 50 $\mu\text{mol m}^{-2} \text{s}^{-1}$ and air atmosphere. The average values from
8 three biological replicates are presented \pm the SD.

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11 Fig 1S

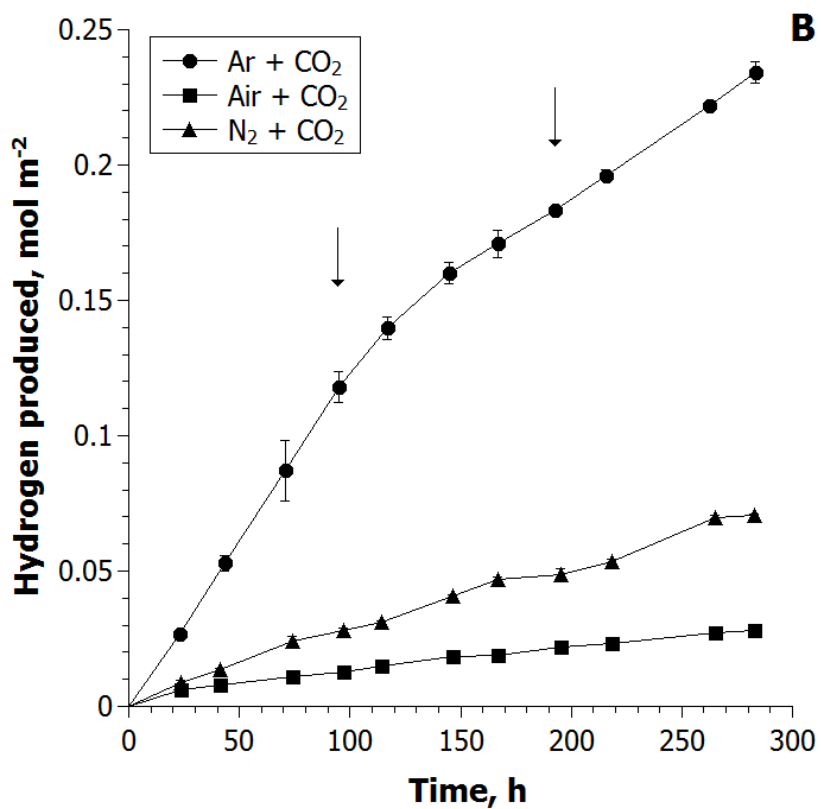
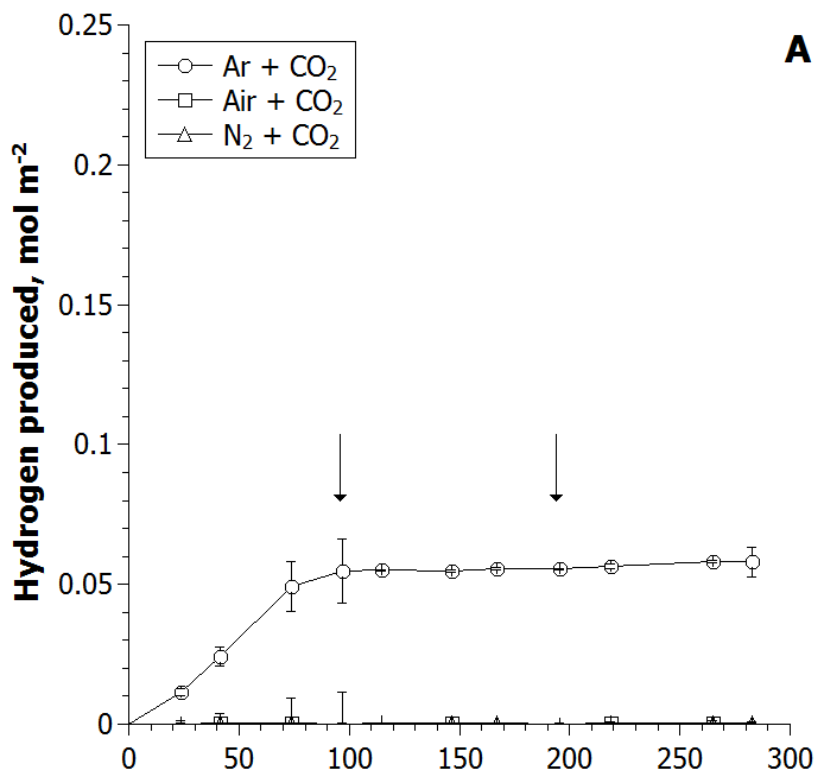


Fig. 2S.

