



Figure 5. Induction of photosynthesis in anaerobically adapted *C. reinhardtii* cells devoid of hydrogenases and Flvs. Chlorophyll fluorescence and gas exchange rates were recorded under illumination ($660 \mu\text{mol photons m}^{-2} \text{ s}^{-1}$). (A) Operating PSII quantum yield. (B) CO₂ fixation rates measured after 9 min of illumination. Anaerobic acclimation was performed during 90 min for hydrogenase containing strains and 45 min for hydrogenase deficient strains. Shown are mean (\pm SD, $n=3$), a star marks a significant difference between WT and *flvB* (on the left) and triple mutants and the *hydA1/A2* mutant (on the right) based on ANOVA analysis (Tukey adjusted P value).