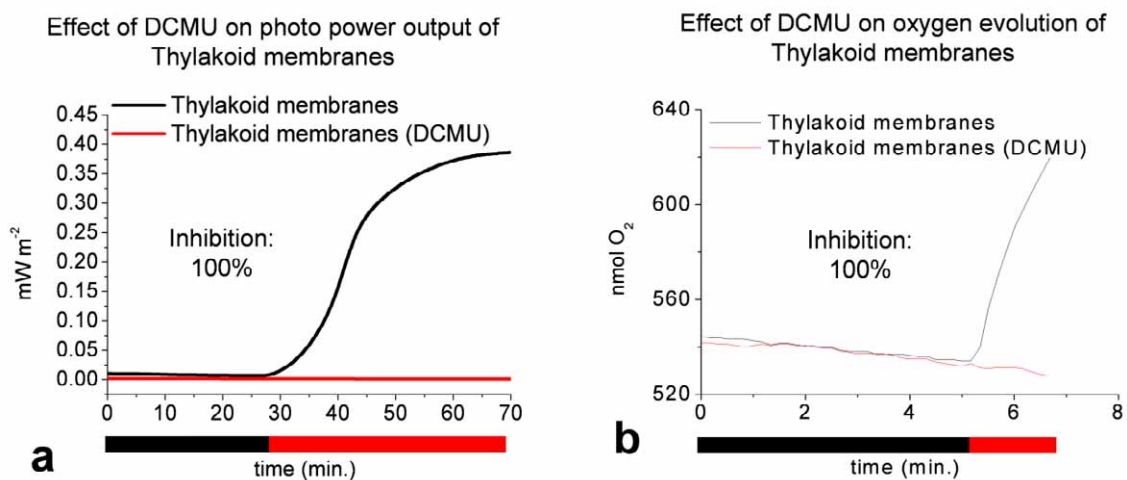
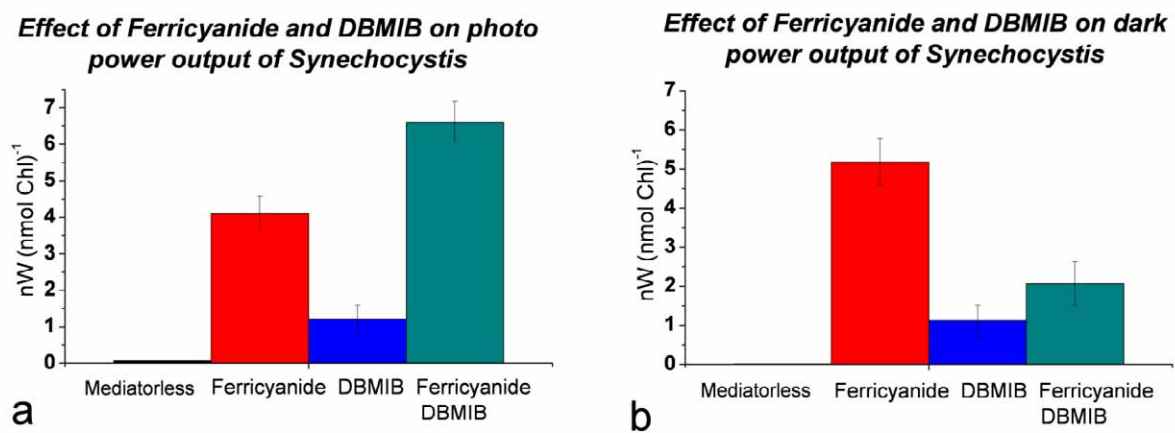


Supplementary Fig. 1.



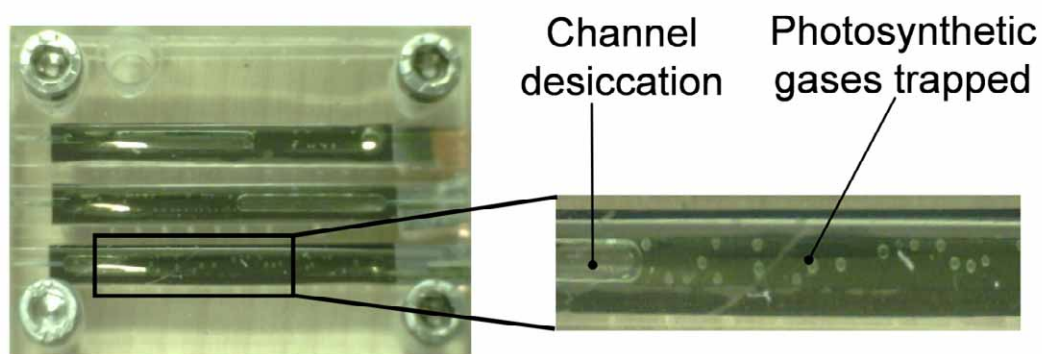
Effect of DCMU on (a) power output and (b) photosynthetic oxygen evolution rate of spinach thylakoid membranes.

Supplementary Fig. 2.

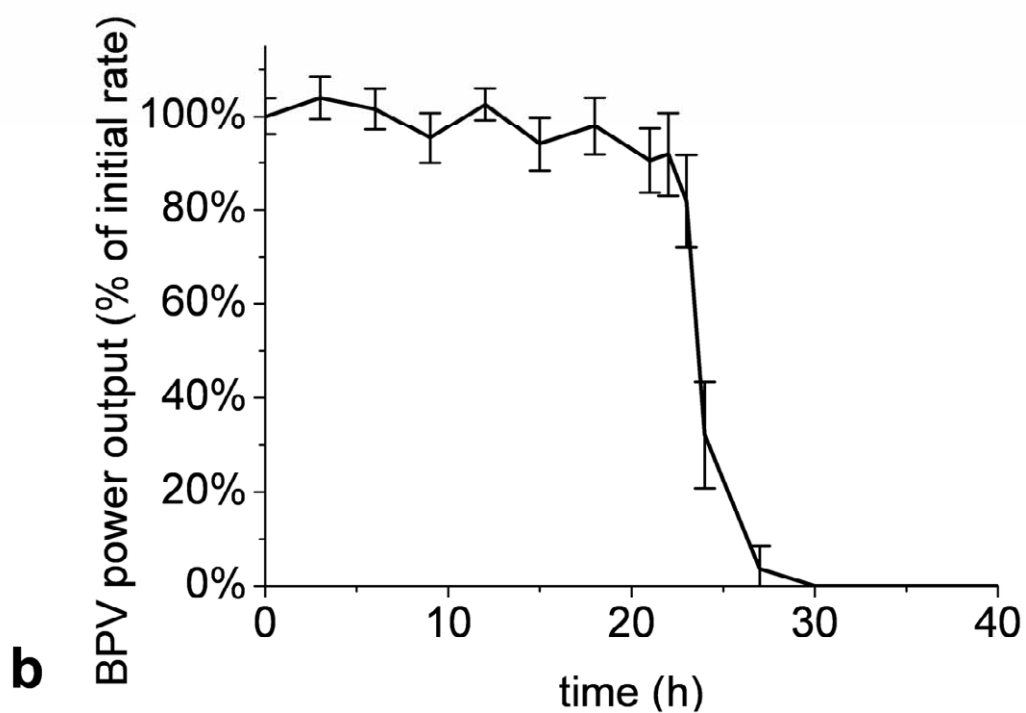


Effect of DBMIB on BPV power output in the dark and light ($n=3$).

Supplementary Fig. 3.

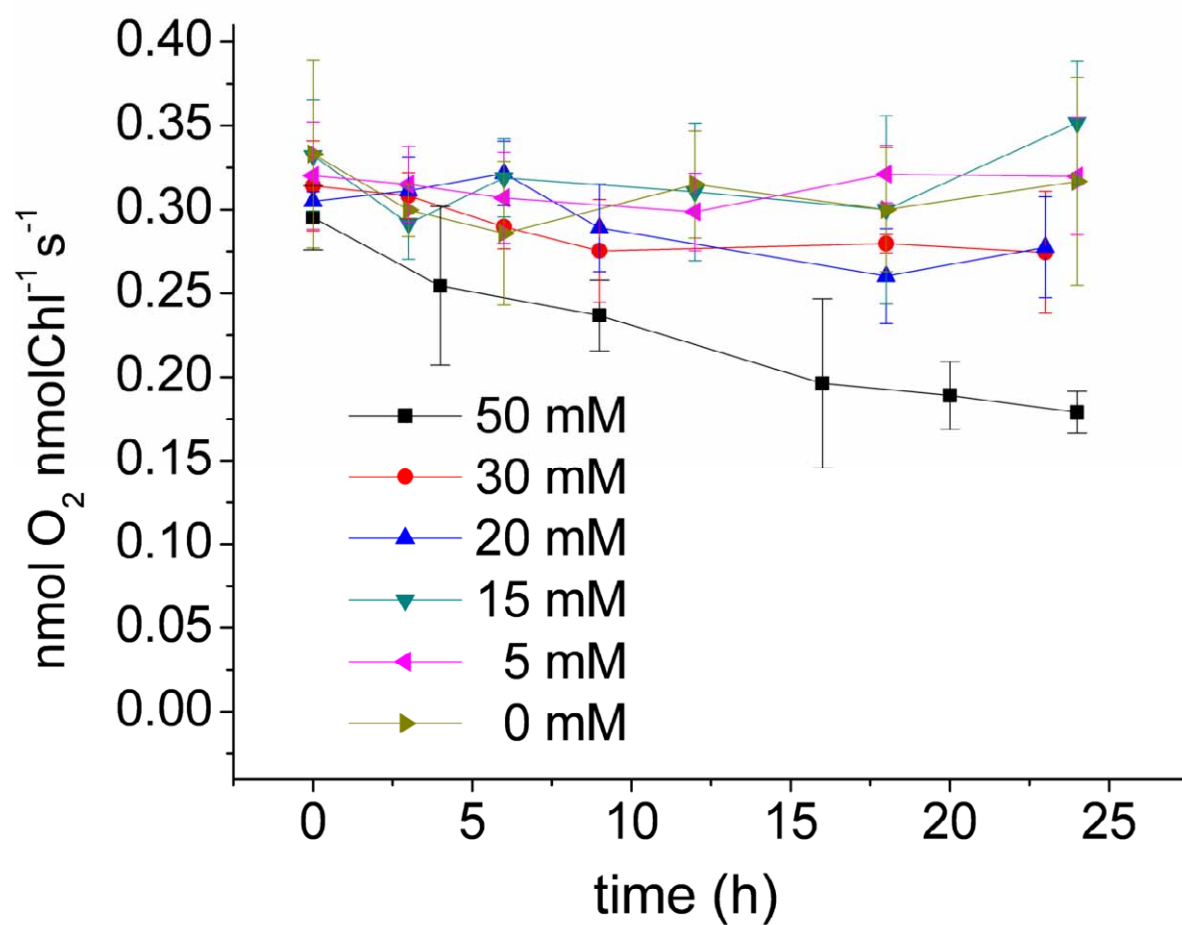


a



Effects of long experiment duration. **(a)** Photo showing channel desiccation due to leakage and production of gases by the organism. **(b)** Graph showing rapid device failure due to desiccation after approximately 22 hours.

Supplementary Fig. 4.



Effects of ferricyanide (0 - 50 mM) on *Synechocystis* photosynthetic oxygen evolution rate. The effect of a range of concentrations of ferricyanide over 24 hours (the approximate time of a power-measuring experiment in the BPV) is shown; for all cases $n=3$.