

Accepted Manuscript

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PII: S0960-8524(13)00869-9

DOI: <http://dx.doi.org/10.1016/j.biortech.2013.05.101>

Reference: BITE 11888

To appear in: *Bioresource Technology*

Received Date: 25 March 2013

Revised Date: 26 May 2013

Accepted Date: 27 May 2013

Please cite this article as: Lin, H-D., Liu, B-H., Kuo, T-T., Tsai, H-C., Feng, T-Y., Huang, C-C., Chien, L-F., Knockdown of PsbO leads to induction of HydA and production of photobiological H₂ in the green alga *Chlorella sp.* DT, *Bioresource Technology* (2013), doi: <http://dx.doi.org/10.1016/j.biortech.2013.05.101>

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Keywords: green alga, PsbO, knockdown, HydA, induction, H₂ production

Abstract

Green algae are able to convert solar energy to H₂ via the photosynthetic electron transport pathway under certain conditions. Algal hydrogenase (HydA, encoded by *HYDA*) is in charge of catalyzing the reaction: $2\text{H}^+ + 2\text{e}^- \leftrightarrow \text{H}_2$ but usually inhibited by O₂, a byproduct of photosynthesis. The aim of this study was to knockdown PsbO (encoded by *psbO*), a subunit concerned with O₂ evolution, so that it would lead to

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