

Accepted Manuscript

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PII: S0960-8524(13)01024-9
DOI: <http://dx.doi.org/10.1016/j.biortech.2013.06.096>
Reference: BITE 12012

To appear in: *Bioresource Technology*

Received Date: 4 May 2013
Revised Date: 21 June 2013
Accepted Date: 24 June 2013

Please cite this article as: Fernandes, B., Teixeira, J., Dragone, G., Vicente, A.A., Kawano, S., Bišová, K., Příbyl, P., Zachleder, V., Vítová, M., Relationship between starch and lipid accumulation induced by nutrient depletion and replenishment in the microalga *Parachlorella kessleri*, *Bioresource Technology* (2013), doi: <http://dx.doi.org/10.1016/j.biortech.2013.06.096>

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HIGHLIGHTS

- ▶ *Parachlorella* cells, starved by medium depletion, ceased growth and division.
- ▶ During starvation, chlorophyll was degraded and starch content decreased.
- ▶ During starvation, storage lipids, but not other cellular lipids, were overproduced.
- ▶ Starch was not used for storage lipid synthesis, whereas cellular lipids were.
- ▶ Algae that were transferred to complete medium recovered growth and cell division.

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