

Lipid profiling of some autotrophic microalgae grown on waste water

Safar, Hamed; Jacobsen, Charlotte; Møller, Per

Publication date:
2014

Document Version
Publisher's PDF, also known as Version of record

[Link back to DTU Orbit](#)

Citation (APA):

Safar, H., Jacobsen, C., & Møller, P. (2014). Lipid profiling of some autotrophic microalgae grown on waste water. Abstract from 2nd International Conference on Algal Biorefinery, Lyngby, Denmark.

DTU Library

Technical Information Center of Denmark

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Lipid profiling of some phototropic microalgae grown in waste water

Hamed Safafar, Charlotte Jacobsen, Per Møller

Hamed Safafar, Division of Industrial Food Research, Technical University of Denmark, hasaf@food.dtu.dk

Charlotte Jacobsen, Division of Industrial Food Research, Technical University of Denmark, chja@food.dtu.dk

Per Møller, Ecolipids, Jyderup, Denmark, pm@ecolipids.dk

Microalgae can be a new source of lipids for the aquaculture industry. Moreover, their potential as natural sources of antioxidants has gained recent attention. About 40 species of microalgae are used in aquaculture worldwide. A full characterization of lipid components is critical for selecting the most suitable microalgae and downstream processing for food and feed production. The present study is part of a big project funded by GUDP (green development and demonstration program of ministry of agriculture and fisheries of Denmark) which aims at developing new processing technologies, so that microalgae-biomass can be used as an alternative valuable resource in fish feed. In this work, 10 fresh water and marine microalgae from *Chlorella*, *Scenedesmus*, *Haematococcus*, *Nannochloropsis*, *Nannochloropsis* and *Dunaliella* species grown in waste water in Kalundborg micro algal facility were harvested by membrane microfiltration and analyzed for fatty acid (GC), triacylglycerol (HPLC), sterol (GC) and tocopherol (HPLC) composition and also for amounts of phospholipids. Lipid composition in micro algae varied strongly between species.