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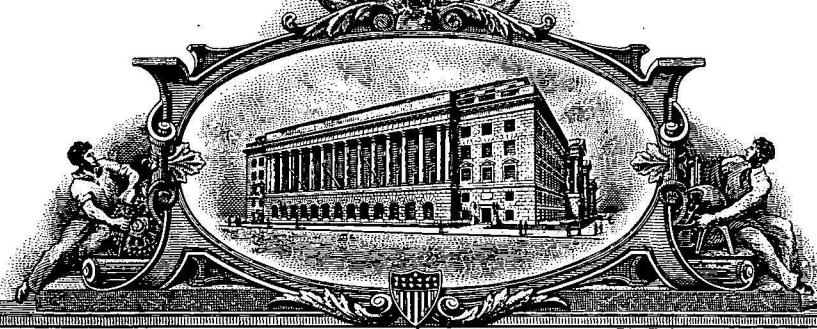
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APPLICATION NUMBER: *60/859,289*

FILING DATE: *November 16, 2006*

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**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

Express Mail Label No.

**INVENTOR(S)**

Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Harald	Brevik	Porsgrunn, Norway

Additional inventors are being named on the \_\_\_\_\_ separately numbered sheets attached hereto

**TITLE OF THE INVENTION (280 characters max)**

PROCESSES FOR PRODUCTION OF OMEGA-3 RICH MARINE PHOSPHOLIPIDS FROM KRILL

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**ENCLOSED APPLICATION PARTS (check all that apply)**

Specification Number of Pages

15

CD(s), Number

Drawing(s) Number of Sheets

Other (specify)

Application Data Sheet. See 37 CFR 1.76

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Applicant claims small entity status. See 37 CFR 1.27.

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Payment by credit card. Form PTO-2038 is attached.

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

No.

Yes, the name of the U.S. Government agency and the Government contract number are: \_\_\_\_\_

Respectfully submitted,

SIGNATURE

Date November 16, 2006

TYPED or PRINTED NAME John A. Castellano

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(if appropriate)

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Docket Number:  
2600N-000001/US/PS1

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This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the complete provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C., 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

113260 U.S. PTO  
60/859289



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krill

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Title: "Processes for production of omega-3 rich marine phospholipids from krill"

### Field of the invention

The present invention relates to a process for preparing a substantially total lipid fraction from fresh krill, and a process for separating phospholipids from the other lipids.

### Background of the invention

Marine phospholipids are useful in medical products, health food and human nutrition, as well as in fish feed and means for increasing the rate of survival of fish larval and fry of marine species like cod, halibut and turbot.

Phospholipids from marine organisms comprise omega-3 fatty acids. Omega-3 fatty acids bound to marine phospholipids are assumed to have particularly useful properties.

Products such as fish milt and roe are traditional raw materials for marine phospholipids. However, these raw materials are available in limited volumes and the price of said raw materials is high.

Krill are small, shrimp-like animals, containing relatively high concentrations of phospholipids. In the group *Euphasiids*, there is more than 80 species, of which the Antarctic krill is one of these. The current greatest potential for commercial utilisation is the Antarctic *Euphausia superba*. *E. superba* has a length of 2-6 cm. Another krill species is *E. crystallorhynchus*.

Fresh krill contains up to around 10 % of lipids, of that approximately 50 of % phospholipids. Phospholipids from krill comprise a very high level of omega-3 fatty acids, whereof the content of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) is above 40 %. The approximate composition of lipids from the two main species of Antarctic krill is given in Table 1.

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