Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/NO2007/000402

International filing date: 15 November 2007 (15.11.2007)

Document type: Certified copy of priority document

Document details: Country/Office: US

Number: 60/859,289

Filing date: 16 November 2006 (16.11.2006)

Date of receipt at the International Bureau: 11 December 2007 (11.12.2007)

Remark: Priority document submitted or transmitted to the International Bureau in

compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland





PA 1669084

<u>TO ALL TO WHOM THESE PRESENTS SHALL COMES</u> UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

November 13, 2007

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: 60/859,289 FILING DATE: November 16, 2006

THE COUNTRY CODE AND NUMBER OF YOUR PRIORITY APPLICATION, TO BE USED FOR FILING ABROAD UNDER THE PARIS **CONVENTION, IS US60/859,289**

By Authority of the

Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office

Certifying Officer



Express Mail Label No.								
INVENTOR(S)								
Given Name (first and middle [if any])		Family Name or Surname		е (С	Residence (City and either State or Foreign Country)			
Harald			Breivik		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								
CORRESPONDENCE ADDRESS Direct all correspondence to:								
☑ Customer Number	30593		<u> </u>	→ 30593			3	
	rpe Customer N		, ,					
Firm or Individual Name	HARNESS, DICKEY & PIERCE, P.L.C.							
Address	P.O. Box 8910							
Address								
City	Reston		State	VA		ZIP	20195	
Country	USA		Telephone	703-668-8	0000	Fax	703-668-820	0
ENCLOSED APPLICATION PARTS (check all that apply)								
Application Data Sheet. See 37 CFR 1.76								
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT (check one)								
Applicant claims small entity status. See 37 CFR 1.27. A check or money order is enclosed to cover the filing fees AMOUNT (\$)								
The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: Payment by credit card. Form PTO-2038 is attached.							200.00)
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 REGISTRATION NO. 35,094						
TYPED or PRINTED NAME Of n A. Castellano			(if ap	(if appropriate)				
TELEPHONE 703-668-8090				et Numbe N-00000		1		
/ /								

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 GR 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 GR 1.14. This collection is estimated by 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 implicit of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Christ Information Officer, U.S. Petant and Trademark Office, U.S. Department of Configuration, 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.



Pronova Biocare AS P.O. Box 420 N-1327 Lysaker NORWAY

Inventor:

Harald Breivik Uranusvn. 22 N-3942 Porsgrunn NORWAY

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. crystallorphias.

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.

35

25

30

15



DOCKET

Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.

