

Search history

Search (stage or column) and distillation and (tocopherol or tocotrienol or carotenoid) and oil and pressure not supercrit* (Results 2799)
1:
Search 1 and tac=(column or distilla*) (Results 402)
2:
Search 2 and oil and (vegetable or edible or palm or rapeseed) (Results 280)
3:
Search 3 and tac=(fatty or FFA) (Results 160)
4:
Search 4 and (pressure or temperature) near (column or distillation) (Results 115)
5:
Search 5 and tac=(oil) (Results 92)
6:
Search (6) AND IPC=(C11 OR B01) (Results 59)
7:
Search (7) AND PD=(2012 OR 2013 OR 2014 OR 2008 OR 2010 OR 2009 OR 2011 OR 2006 OR 2007 OR 2002 OR 2004 OR 2003 OR 1997 OR 1997 OR 2001 OR 1996 OR 2005) (Results 45)

1) Family number: 42509000 (US2010130610A)

© PatBase

Title: DEODORIZATION AND STABILIZATION OF MARINE OILS

Abstract: The invention relates to a process for the preparation of deodorized and stabilized food-grade marine oils by submitting marine oils to a counter-current steam distillation (CCSD) in a thin film column containing a structured packing and, if desired, adding antioxidant(s), to the food-grade marine oils thus obtained and to their uses in the food/feed, cosmetic and/or pharmaceutical industry.

Classifications:

International (IPC 8-9): A23D9/00 A23D9/007 A23D9/02 A23K1/00 A23L A23L1/015 A23L1/30 A23L5/20 A61K31/20 A61K31/202 A61K35/60 A61K36/02 A61K47/44 A61K8/92 A61K8/98 A61P7/02 A61P9/10 C11B3/00 C11B3/14 C11B5/00 (Advanced/Invention);

A23D9/00 A23D9/02 A23K1/00 A23L1/015 A23L1/30 A61K31/185 A61K35/56 A61K36/02 A61K47/44 A61K8/92 A61K8/96 A61P7/00 A61P9/00 C11B3/00 C11B5/00 (Core/Invention);
A23D A23L C11B (Subclass/Invention)

International (IPC 1-7): A23L1/015

CPC: A23L5/21 C11B5/0092 C11B5/0085 C11B5/0035 C11B5/00 C11B3/14 A23D9/00 A23L5/20

European: A23L1/015B C11B3/14 C11B5/00 C11B5/00F4 C11B5/00P C11B5/00S

US: 424/195.17 424/522 424/523 426/541 426/545 426/546 514/560 554/205

Family:

Publication number	Publication date	Application number	Application date
■ CN101677600 A	20100324	CN200880015614	20080509
■ CN105029138 A	20151111	CN201510386282	20080509
■ EP1992233 A1	20081119	EP20070009539	20070511
■ EP2152094 A2	20100217	EP20080758456	20080509
■ HK1216977 A1	20161216	HK20160105007	20160503
■ IN07323DN2009 A	20100625	IN2009DN07323	20091111
■ IN291331 B	20180105	IN2009DN07323	20091111
■ JP2010526896 T2	20100805	JP20100506862T	20080509
■ JP2014128273 A2	20140710	JP20140022494	20140207
■ JP5550147 B2	20140716	JP20100506862T	20080509
■ KR101586502 B1	20160118	KR20097023423	20080509
■ KR20100016389 A	20100212	KR20097023423	20080509
■ US2010130610 AA	20100527	US20080598968	20080509
■ US8461363 BB	20130611	US20080598968	20080509
■ WO08138575 A2	20081120	WO2008EP03782	20080509
■ WO08138575 A3	20090122	WO2008EP03782	20080509

Priority:

EP20070009539	20070511	US20070798496	20070514	CN200880015614	20080509
EP20080758456	20080509	JP20100506862	20080509	JP20100506862T	20080509
WO2008EP03782	20080509	US20080598968	20080509		

Probable Assignee: ROYAL DSM NV

Assignee(s): (std): DSM IP ASSETS BV ; KELLER ANDREAS ; KOSCHINSKI INGO ; MACFARLANE NEIL ; MEIERHANS THOMAS ; LUSTENBERGER ALBERT ; ROYAL DSM NV

Assignee(s): DSM IP ASSETS B V

Inventor(s): (std): ALBERT LUSTENBERGER ; ANDREAS KELLER ; INGO KOSCHINSKI ; KELLER ANDREAS ; KOSCHINSKI INGO ; LUSTENBERGER ALBERT ; MACFARLANE NEIL ; MEIERHANS THOMAS ; NEIL MACFARLANE ; THOMAS MEIERHANS

Agent(s): PRESSNER DIETMAR ET AL; MEZGER WOLFGANG; KWAN WONG AND PARTNERS; NIXON AND VANDERHUYE PC; NIXON AND VANDERHUYE P C

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

2) Family number: 50760014 (US2012083435A)

© PatBase

Title: ACETIC ACID-CAPPED ESTOLIDE BASE OILS AND METHODS OF MAKING THE SAME

Abstract: Provided herein are compounds, including those of the Formula II in which n is an integer equal to or greater than 1; R₂, is selected from hydrogen and optionally substituted alkyl that is saturated or unsaturated, and branched or unbranched; and R₃, and R₄, independently for each occurrence, are selected from optionally substituted alkyl that is saturated or unsaturated, and branched or unbranched. Also provided are compositions containing such compounds and methods of making both compounds and compositions thereof.

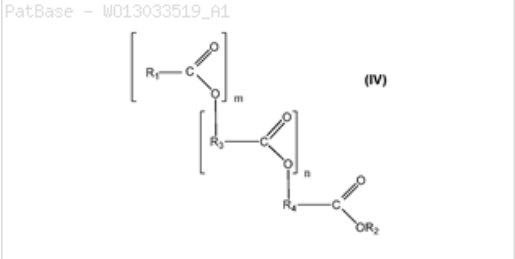
Classifications:

International (IPC 8-9): A01N25/02 B01J19/12 B05B1/16 B05B1/30 B05B1/32 B21B45/02 B21J3/00 C07C323/51 C07C51/00 C07C51/367 C07C55/02 C07C57/02 C07C59/00 C07C59/147 C07C59/185 C07C59/235 C07C59/40 C07C67/04 C07C67/08 C07C67/283 C07C67/465 C07C67/48 C07C67/54 C07C69/34 C07C69/347 C07C69/604 C07C69/66 C07C69/67 C07C69/675 C07C69/708 C07C69/732 C07D301/27 C07D303/00 C07D331/02 C07D493/00 C08G63/20 C08K5/00 C08K5/10 C08K5/101 C08K5/11 C08K5/1515 C09K3/00 C09K5/00 C09K5/04 C09K5/08 C09K5/10 C09K8/32 C10L1/22 C10M101/02 C10M101/04 C10M105/32 C10M105/34 C10M105/36 C10M105/38 C10M105/42 C10M105/72 C10M107/02 C10M107/32 C10M107/34 C10M11/02 C10M111/04 C10M117/02 C10M117/04 C10M129/10 C10M129/68 C10M129/72 C10M129/74 C10M129/76 C10M129/78 C10M133/04 C10M133/12 C10M133/46 C10M135/06 C10M135/18 C10M135/34 C10M137/08 C10M137/10 C10M141/06 C10M143/06 C10M145/22 C10M159/08 C10M169/02 C10M169/04 C10M169/06 C10M171/00 C10M177/00 C10M20/02 C10N30/02 C10N30/10 C10N40/16 C10N50/10 C11B5/00 C11C1/10 C11C3/00 C11C3/08 G05D16/00 H01B3/20 H01B3/22 H01F27/12 H01F41/00 (Advanced/Invention); C07B61/00 C07C69/34 C07C69/52 C08K5/00 C08K5/10 C08K5/101 C10N10/02 C10N10/04 C10N10/10 C10N20/00 C10N20/02 C10N30/00 C10N30/02 C10N30/10 C10N40/08 C10N40/16 C10N40/25 C10N50/10 C10N70/00 C11C3/00 C11C3/08 (Advanced/Non-invention)

CPC: C09K5/00 C07C69/34 C08K5/10 C10M133/04 C10M129/72 C07C67/54 C07C67/48 C07C69/708 C08K5/0016 C08K5/101 C08K5/1515 C10M105/72 C10M129/78 C10M135/06 C10M135/34 C10M2203/1006 C10M2207/30 C10M2219/021 C10M2219/101 C10M2219/102 C10M2207/2825 C10M107/32 C10M2209/1023 C10N220/023 C10N220/10 C09K5/044 C09K5/045 C09K2205/12 C10M171/008 C10M2207/02 C10M2207/042 C10M2207/10 C10M2207/28 C10M2223/04 C10N220/30 C10N220/301 C10N220/302 C10N220/303 C10N220/305 C10N220/306 C10M2203/10 C10M2205/028 C10M2207/023 C10M2207/08 C10M2207/2805 C10M2207/281 C10M2207/289 C10M2207/40 C10M2209/103 C10N220/00 C10N220/02 C10N220/60 C10N2240/201 H01B3/22 H01F27/12 C10M169/02 C10M2203/1025 C10M2207/1256 C10M2207/1265 C10M2207/1285 C10M2207/402 C10M2215/224 C10M2219/024 C10M2219/068 C10M2223/043 C10N2210/02 C10N2230/64 C10N2250/10 Y10T29/4902 C10N2220/022 C10N2220/027 C10N2220/028 C10M2207/024 C10M2207/026 C10M2207/044 C10M2207/283 C10M2207/301 C10M2215/064 C10M2215/065 C10M2219/087 C10M2223/045 C10N2220/025 C10N2230/10 C10N2270/00 C11C1/10 B21J3/00 H01F41/00 C10M169/042 C10M2207/286 C11C3/00 C11C3/08 C10M105/42 C07C69/67 C10N2210/01 C10N2260/04 C10N2210/05 C10M117/04 C10M137/10 C10M143/06 C10M169/041 C10M129/10 C10M2205/026 C10M169/06 C10N2240/30 C10N2230/06 C10N2240/04 C10M105/34 C07C69/604 C10M133/12 C10M105/32 C10N220/024 C11C3/003 C10M133/46 C10N2230/14 C10N2230/12 C10N2230/20 C10M105/36 C10M169/04 C08K5/11 C09K2205/122 C10N2240/08 C10N2240/40 C10M111/04 C07C69/675 C07C57/02 B05B1/326 B05B1/3026 Y10T137/86549 Y10T137/86863 B05B1/1636 C07C67/465

European: C09K5/04B4 C09K5/04B4B C10M105/42 C10M105/72 C10M107/32 C10M129/78 C10M135/06 C10M135/34 C10M169/02 C10M169/04 C10M171/00R C11C3/00 C11C3/00B C11C3/08 M09K205/120 M10M203/10 M10M203/102B M10M203/10B M10M205/028 M10M207/02 M10M207/023 M10M207/024 M10M207/026 M10M207/042 M10M207/044 M10M207/08 M10M207/10 M10M207/125T M10M207/126T M10M207/128T M10M207/28 M10M207/281 M10M207/283 M10M207/289 M10M207/28B M10M207/30 M10M207/30B M10M207/40 M10M207/402 M10M209/102B M10M209/103 M10M215/064 M10M215/065 M10M215/224 M10M219/024 M10M219/02B M10M219/068 M10M219/087 M10M219/102 M10M219/10B M10M223/04 M10M223/043 M10M223/045 M10N210/02 M10N220/00 M10N220/022 M10N220/023 M10N220/024 M10N220/025 M10N220/027 M10N220/028 M10N220/10 M10N220/30 M10N220/301 M10N220/302 M10N220/303 M10N220/305 M10N220/306 M10N230/02 M10N230/10 M10N230/60 M10N230/64 M10N240/201 M10N250/10 M10N270/00

US: 1/1 106/287.24 203/73 203/91 204/157.6 204/157.600S 204/157.87 252/182.12 252/570 252/575 252/579 252/67 252/68 252/69 252/77 252/79 29/602.1 336/58 507/129 508/284 508/408 508/409 508/452 508/463 508/465 508/485 508/496 508/496P 508/499 508/506 508/506P 508/511 514/785 524/306 524/311 549/512 549/515 549/90 554/121 554/122 554/122P 554/122S 554/148 554/149 554/174 554/213 554/219 554/5 560/190 560/190S 560/201 560/201S 72/42



Family:

Publication number	Publication date	Application number	Application date
AU2011296575 AA	20120308	AU20110296575	20110831
AU2011296575 BB	20140424	AU20110296575	20110831
AU2011296578 AA	20120308	AU20110296578	20110831
AU2011296578 BB	20140821	AU20110296578	20110831
AU2012271126 AA	20121220	AU20120271126	20120530
AU2012271126 BB	20161013	AU20120271126	20120530
AU2012271204 AA	20121220	AU20120271204	20120206
AU2012271204 BB	20161222	AU20120271204	20120206
AU2012271213 AA	20121220	AU20120271213	20120228
AU2012271213 BB	20161110	AU20120271213	20120228
AU2014203810 AA	20140731	AU20140203810	20140711
AU2014203810 BB	20160811	AU20140203810	20140711
AU2014264439 AA	20141204	AU20140264439	20141118
AU2014264439 BB	20160421	AU20140264439	20141118
AU2017200174 AA	20170202	AU20170200174	20170111
CA2809353 AA	20130225	CA20112809353	20110831
CA2809361 AA	20130225	CA20112809361	20110831
CA2809361 C	20181106	CA20112809361	20110831
CA2838465 AA	20131205	CA20122838465	20120530
CA2838701 AA	20131206	CA20122838701	20120228
CA2839174 AA	20131211	CA20122839174	20120206
CN103620008 A	20140305	CN201280029732	20120530

CN103620008 B	20160302	CN201280029732	20120530
DE602011025955 D1	20160616	DE201160025955T	20110831
EP2611890 A1	20130710	EP20110758277	20110831
EP2611890 B1	20160427	EP20110758277	20110831
EP2611891 A1	20130710	EP20110764889	20110831
EP2702122 A1	20140305	EP20120705208	20120206
EP2702123 A1	20140305	EP20120706745	20120208
EP2702124 A1	20140305	EP20120707692	20120224
EP2702125 A1	20140305	EP20120709424	20120228
EP2702126 A1	20140305	EP20120726540	20120530
EP2727982 A1	20140507	EP20140153132	20110831
IN09333CN2013 A	20150109	IN2013CN09333	20131121
JP2013536838 T2	20130926	JP20130527065T	20110831
JP2013536887 T2	20130926	JP20130527064T	20110831
JP2014517123 T2	20140717	JP20140515810T	20120206
JP2014517124 T2	20140717	JP20140515847T	20120530
JP2014532254 T2	20141204	JP20140515812T	20120228
JP2016104746 A2	20160609	JP20150239476	20151208
JP2016153491 A2	20160825	JP20160028786	20160218
JP2017075327 A2	20170420	JP20160234749	20161202
JP2018087194 A2	20180607	JP20180000444	20180105
JP5890417 B2	20160322	JP20130527064T	20110831
JP6100768 B2	20170322	JP20140515847T	20120530
JP6130363 B2	20170517	JP20140515812T	20120228
KR20140043383 A	20140409	KR20137032720	20120530
US2012083435 AA	20120405	US20110223008	20110831
US2012172609 AA	20120705	US20110199551	20110831
US2012178660 AA	20120712	US20110199554	20110831
US2012322707 AA	20121220	US20120366667	20120206
US2012322897 AA	20121220	US20120483602	20120530
US2012323020 AA	20121220	US20120368713	20120208
US2013015415 AA	20130117	US20120552878	20120719
US2013023454 AA	20130124	US20120587120	20120816
US2013053589 AA	20130228	US20120600704	20120831
US2013102510 AA	20130425	US20120705543	20121205
US2013118893 AA	20130516	US20120711388	20121211
US2013172223 AA	20130704	US20130754775	20130130
US2013245298 AA	20130919	US20130865520	20130418
US2013274493 AA	20131017	US20130865495	20130418
US2013317154 AA	20131128	US20130766138	20130213
US2013338050 AA	20131219	US20130950508	20130725
US2013340246 AA	20131226	US20130936015	20130705
US2014157847 AA	20140612	US20130100469	20131209
US2014171671 AA	20140619	US20130095750	20131203
US2015005212 AA	20150101	US20140246891	20140407
US2015197477 AA	20150716	US20150602752	20150122
US2015210950 AA	20150730	US20150613311	20150203
US2015259620 AA	20150917	US20150676516	20150401
US2015376534 AA	20151231	US20150788503	20150630
US2016032211 AA	20160204	US20150829468	20150818
US2016039739 AA	20160211	US20140454538	20140807
US2016281016 AA	20160929	US20160174558	20160606
US2016281023 AA	20160929	US20160174666	20160606
US2016289163 AA	20161006	US20150976350	20151221
US2016318843 AA	20161103	US20160143884	20160502
US2017073601 AA	20170316	US20150837240	20150827
US2017152205 AA	20170601	US20170429615	20170210
US2017233676 AA	20170817	US20170449768	20170303
US2017292006 AA	20171012	US20170582317	20170428
US2018112060 AA	20180426	US20170831916	20171205
US2018154378 AA	20180607	US20180868836	20180111
US2018171254 AA	20180621	US20170655633	20170720
US8236194 BA	20120807	US20120404903	20120224
US8258326 BA	20120904	US20120411331	20120302
US8268199 BA	20120918	US20120407402	20120228
US8287754 BA	20121016	US20120531923	20120625
US8372301 BB	20130212	US20120483602	20120530
US8399389 BB	20130319	US20120587120	20120816
US8404867 BB	20130326	US20120368713	20120208
US8450256 BB	20130528	US20110199554	20110831
US8455412 BB	20130604	US20110223008	20110831
US8486875 BB	20130716	US20120711388	20121211
US8512592 BB	20130820	US20120552878	20120719
US8541351 BB	20130924	US20120705543	20121205
US8633143 BB	20140121	US20130754775	20130130
US8637689 BB	20140128	US20110199551	20110831
US8716206 BB	20140506	US20130865520	20130418
US8829216 BB	20140909	US20120600704	20120831
US8859658 BB	20141014	US20130766138	20130213
US8975425 BB	20150310	US20130095750	20131203
US9016097 BB	20150428	US20130100469	20131209

US9935548 BB	20150393	US20130936965	20130795
US9228146 BB	20160105	US20150613311	20150203
US9328305 BB	20160503	US20150602752	20150122
US9394501 BB	20160719	US20120366667	20120206
US9410103 BB	20160809	US20140454538	20140807
US9487725 BB	20161108	US20150676516	20150401
US9534184 BB	20170103	US20150788503	20150630
US9546336 BB	20170117	US20160174558	20160606
US9605231 BB	20170328	US20160174666	20160606
US9637700 BB	20170502	US20150829468	20150818
US9650328 BB	20170516	US20150976350	20151221
US9840606 BB	20171212	US20170582317	20170428
US9878973 BB	20180130	US20160143884	20160502
US10087385 BB	20181002	US20170655633	20170720
US10150931 BB	20181211	US20170449768	20170303
WO12030395 A1	20120308	WO2011US01537	20110831
WO12030398 A1	20120308	WO2011US01540	20110831
WO12030398 A8	20120927	WO2011US01540	20110831
WO12031048 A1	20120308	WO2011US50102	20110831
WO12173665 A1	20121220	WO2012US23933	20120206
WO12173666 A1	20121220	WO2012US24260	20120208
WO12173671 A1	20121220	WO2012US26538	20120224
WO12173674 A1	20121220	WO2012US26887	20120228
WO12173774 A1	20121220	WO2012US39937	20120530
WO13033519 A1	20130307	WO2012US53316	20120831

Priority:

US20100378891P	20100831	US20110498499P	20110617	AU20110296575	20110831
AU20110296578	20110831	EP20110758277	20110831	JP20130527065T	20110831
JP20130527064T	20110831	JP20150239476	20110831	US20110223008	20110831
US20110199551	20110831	US20110199554	20110831	US20110529884P	20110831
WO2011US01537	20110831	WO2011US01540	20110831	US20110541030P	20110929
US20110548613P	20111018	US20110569046P	20111209	US20120583139P	20120104
US20120366667	20120206	WO2012US23933	20120206	US20120368713	20120208
WO2012US24260	20120208	US20120404903	20120224	WO2012US26538	20120224
US20120407402	20120228	WO2012US26887	20120228	US20120411331	20120302
US20120643072P	20120504	AU20120271126	20120530	JP20140515847T	20120530
US20120483602	20120530	US2012US39937	20120530	US20120531923	20120625
US20120552878	20120719	US20120587120	20120816	US20120600704	20120831
US20120705543	20121205	US20120711388	20121211	US20130754775	20130130
US20130766138	20130213	US20130865520	20130418	US20130865495	20130418
US20130936015	20130705	US20130950508	20130725	US20130095750	20131203
US20130100469	20131209	US20140246891	20140407	AU20140203810	20140711
US20140454538	20140807	AU20140264439	20141118	US20150602752	20150122
US20150613311	20150203	US20150676516	20150401	US20150788503	20150630
US20150829468	20150818	US20150837240	20150827	JP20150239476	20151208
US20150976350	20151221	JP20160028786	20160218	US20160143884	20160502
US20160174666	20160606	US20160174558	20160606	JP20160234749	20161202
AU20170200174	20170111	US20170429615	20170210	US20170449768	20170303
US20170582317	20170428	US20170655633	20170720	US20170831916	20171205
US20180868836	20180111				

Probable Assignee: BIOSYNTHETIC TECHNOLOGIES LLC

Assignee(s): (std): BREDSGUARD JAKOB ; LUBRIGREEN BIOSYNTHETICS LLC ; FOREST JEREMY ; THOMPSON TRAVIS ; LUBRIGREEN BIOSYNTHETICS L L C ; BIOSYNTHETIC TECHNOLOGIES LLC ; BIOSYNTHETIC TECH LLC ; BIOSYNTHETIC TECHNOLOGIES LLC ; BIOSYNTHETIC TECHNOLOGIES LLC

Assignee(s): BIOSYN HOLDINGS LLC ; BIOSYNTHETIC TECHNOLOGIES LLC IRVINE ; SILICON VALLEY BANK ; EVONIK CORP ; EVONIK OIL ADDITIVES USA INC ; BP TECHNOLOGY VENTURES INC

Inventor(s): (std): FOREST JEREMY ; THOMPSON TRAVIS ; JEREMY FOREST ; JAKOB BREDSGUARD ; TRAVIS THOMPSON ; BREDSGUARD JAKOB

Agent(s): SPRUSON AND FERGUSON; SMART AND BIGGAR; HERNANDEZ YORCK DIPL ING; SCHLICH GEORGE; CLEMENTS ANDREW RUSSELL NIEL; KOGA TETSUJI; AOKI ATSUSHI; FUKUMOTO TSUMORU; ISHIDA TAKASHI; LUBRIGREEN BIOSYNTHETICS; JEREMY; FOREST JEREMY; DERRICK WESLEY B

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY NZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

3) Family number: 41518058 (US2008051599A)

© PatBase

Title: PRODUCTION OF ESTERS OF FATTY ACIDS AND LOWER ALCOHOLS

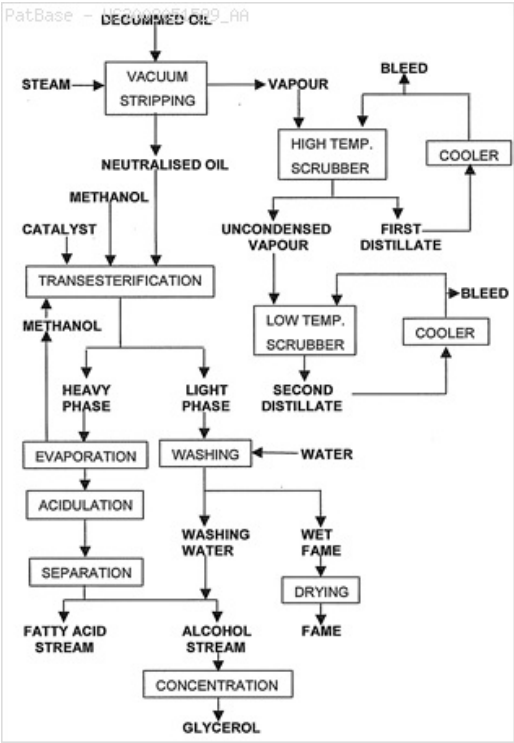
Abstract: Process for the production of esters of fatty acids and C₁-C₅ alkyl alcohols comprising the steps of: (a) providing a fatty feed comprising a triglyceride oil or fat, partial glycerides and/or free fatty acids, (b) neutralising said fatty feed by vacuum stripping at a temperature from 200 degrees centigrade to 280 degrees centigrade, thus providing a vapour stream and a residue, (c) collecting a distillate by scrubbing said vapour stream, (d) transesterifying said residue with a C₁-C₅ alkyl alcohol while using an alkaline catalyst, (e) separating the transesterification reaction mixture from step (d) into a fraction comprising C₁-C₅ alkyl esters of fatty acids and an alcoholic fraction (a) wherein at least part of free acids obtained as side products in step (a) and/or (c) and/or (e) are esterified with an alcohol using an acid catalyst, the product of this esterification being added to said fatty feed or said residue.

Classifications:

International (IPC 8-9): C07C C07C67/03 C07C69/00 C07C69/24 C07C69/52 C11C C11C1/10 C11C3/00 (Advanced/Invention); C07C67/00 C07C69/00 C11C1/00 C11C3/00 (Core/Invention)

CPC: Y02P30/20 C10G2300/1011 C10L1/026 C11B3/04 C11B3/10 C11B3/12 C11B3/14 C11C1/08 Y02E50/13 C11C3/003 C07C67/03 C11C1/10 Y02P20/582

European: C07C67/03 C10L1/02D C11B3/04 C11B3/10 C11B3/12 C11B3/14 C11C1/08 C11C1/10 C11C3/00B M10G300/10B Y02E50/13
US: 560/129 560/129P



Family:

Publication number	Publication date	Application number	Application date
EP1892232 A1	20080227	EP20070075709	20070821
EP1894913 A1	20080305	EP20060017333	20060821
HK1117497 A1	20090116	HK20080107782	20080715
HK1117497 A3	20090116	HK20080107782	20080715
US2008051599 AA	20080228	US20070841255	20070820

Priority:

EP20060017333 20060821 EP20070075709 20070821

Probable Assignee: DESMET BALLESTRA OLEO SPA

Assignee(s): (std) DESMET BALLESTRA OLEO S P A

Assignee(s): DESMET BALLESTRA OLEO SPA

Inventor(s): (std) ADAMI ICILIO ; KELLENS MARC ; SORAGNA FRANCESCO

Agent(s): BIRD WILLIAM EDWARD ET AL; SHANGHAI PATENT AND TRADEMARK OFFICE; CLARK AND ELBING LLP

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK NL PL PT RO SE SI SK TR YU

4) Family number: 32849077 (US2007134384A)

© PatBase

Title: METHOD OF CONCENTRATING MINOR INGREDIENT CONTAINED IN OILY MATTER OBTAINED FROM PLANT TISSUE

Abstract: Fat-soluble trace constituents contained in plant tissues may be conveniently concentrated and/or purified by a method which involves extracting the fat-soluble trace constituent from a plant, to obtain an extract containing the fat-soluble trace constituent; adding a fatty acid ester to the extract, to obtain a mixture; and subjecting the mixture to molecular distillation. The method is particularly effective for the concentration and/or purification of fat-soluble constituents which are solids or viscous liquids at ambient temperature and ordinary pressure. The concentrated and/or purified fat-soluble trace constituent of a plant tissue prepared by the method may be combined with a food or drink to afford a food or drink product that contains the concentrated and/or purified fat-soluble trace constituent.

Classifications:

International (IPC 8-9): A23L1/221 A23L2/02 A23L27/10 C11B1/06 C11B1/10 C11B11/00 C11B3/12 (Advanced/Invention); A23L2/02 C11B3/00 C11B3/12 (Core/Invention)

International (IPC 1-7): C11B3/00 C11B3/12

CPC: C11B1/10 C11B3/12

European: C11B1/10 C11B3/12

US: 203/71 426/425 426/474 426/481 426/489 426/489P

Family:

Publication number	Publication date	Application number	Application date
CN101040036 A	20070919	CN200580035418	20051019
CN101040036 B	20100818	CN200580035418	20051019
JP2006043601 A1	20080522	JP20060543043T	20051019
JP4930706 B1	20120516	JP20060543043T	20051019
JP4930706 B2	20120516	JP20060543043T	20051019
TH80521 A	20061019	TH20051004865	20051018
US2007134384 AA	20070614	US20060589802	20061031
US7842321 BB	20101130	US20060589802	20061031
WO06043601 A1	20060427	WO2005JP19223	20051019

Priority:

Probable Assignee: AJINOMOTO CO INC**Assignee(s):** (std): AJINOMOTO KK ; BITO MASAMI ; KONISHI SATOSHI ; MORI OSAMU ; TASHIMA IKUKAZU ; YAMAGUCHI TAKASHI**Assignee(s):** AJINOMOTO CO ; AJINOMOTO CO INC ; AJINOMOTO CO LTD**Inventor(s):** (std): IKUKAZU TASHIMA ; MASAMI BITO ; OSAMU MORI ; SATOSHI KONISHI ; SATOSHI MORI OSAMU TASHIMA IKU ; TAKASHI YAMAGUCHI ; YAMAGUCHI TAKASHI ; TASHIMA IKUKAZU ; MORI OSAMU ; KONISHI SATOSHI ; BITO MASAMI**Inventor(s):** MORI OSAMU TASHIMA IKUKAZU BITO MASAMI YAMAGUCHI TAKASHI KONISHI SATOSHI ; MORI OSAMU TASHIMA IKUKAZU BITO MASAMI**Agent(s):** HANABUSA TSUNEO; NAKAMURA TOSHIO; MIYAZAKI YOSHIO; TATEISHI MITSUO; KATO TSUTOMU; ONOZUKA KAORU; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT PC; OBLON SPIVAK MCCLELLAND MAIER AND NEUSTADT LLP**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KP KR KZ LC LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW**5) Family number: 9817091 (US5487817A)**

© PatBase

Title: PROCESS FOR TOCOPHEROLS AND STEROLS FROM NATURAL SOURCES

Abstract: A novel process for the recovery of tocopherols and sterols from natural, especially vegetable, sources. This process is especially a process for the separation of tocopherols and sterols from deodorizer sludges by distillation of these deodorizer sludges, in that prior to the distillation the sterols present in the deodorizer sludge are esterified with the fatty acids which are also present, the resulting mixture is distilled to obtain residual fatty acids and subsequently to obtain tocopherols, whereby the sterol esters formed in the esterification remain in the residue of this distillation, and then the tocopherols are isolated from the distillate and the sterols, after cleavage of their esters, are isolated from the distillation residue.

Classifications:**International (IPC 8-9):** B01D3/00 C07D311/72 C07J75/00 C07J9/00 (Advanced/Invention);

B01D3/00 C07D311/00 C07J75/00 C07J9/00 (Core/Invention)

International (IPC 1-7): B01D3/00 B01D3/34 C07D311/72 C07J75/00 C07J9/00**CPC:** C07D311/72 C07J9/00 Y10S203/17**European:** C07D311/72 C07J9/00**US:** 203/38 203/73 203/80 203/DIG.16 549/413 552/545 554/174 554/175

PatBase - JP2648450_B2

重量%

トコフェロール類	3.5
ステロール類	12.5
脂肪酸	34
グリセリド類	20
スクアレン	2.4
残り	27.6

Family:

Publication number	Publication date	Application number	Application date
AT178061 E	19990415	AT19940101257T	19940128
DE59407982 D1	19990429	DE19945007982	19940128
DK0610742 T3	19991018	DK19940101257T	19940128
EP0610742 A1	19940817	EP19940101257	19940128
EP0610742 B1	19990324	EP19940101257	19940128
ES2130294 T3	19990701	ES19940101257T	19940128
JP2648450 B2	19970827	JP19940034234	19940208
JP7002827 A2	19950106	JP19940034234	19940208
US5487817 A	19960130	US19940185571	19940121

Priority:

CH19930000467 19930211

Probable Assignee: HOFFMANN LA ROCHE**Assignee(s):** (std): HOFFMANN LA ROCHE**Assignee(s):** HOFFMANN LA ROCHE INC ; ROCHE VITAMINS INC ; DSM NUTRITIONAL PRODUCTS INC ; EFU HOFUMAN RA ROSHU AG ; F HOFFMANN LA ROCHE AG ; F HOFFMANN LA ROCHE AG BASEL CH ; F HOFFMANN LA ROCHE AKTIENGESELLSCHAFT**Inventor(s):** (std): KURISUCHIYAN FUIZE ; FIZET CHRISTIAN**Inventor(s):** KURISUCHAN FUIZE ; FIZET CHRISTIAN F 68440 ZIMMERSHEIM FR**Designated states:** AT BE CH DE DK ES FR GB IT LI NL**6) Family number: 42574094 (US2010286258A)**

© PatBase

Title: PROCESS

Abstract: A process for producing a composition comprising at least 3 percent by weight of total tocopherols and tocotrienols comprises: providing a product obtained from palm oil comprising tocopherols and tocotrienols, together with free fatty acids and monoglycerides and diglycerides of fatty acids; hydrolysing at least part of the monoglycerides and diglycerides with a lipase to form the corresponding free fatty acids; removing at least part of the free fatty acids after hydrolysis; and recovering a composition comprising a higher level of tocopherols and tocotrienols than are present in the product obtained from palm oil.

Classifications:**International (IPC 8-9):** A01N43/16 A23C19/00 A23C9/00 A23D7/00

A23D9/00 A23D9/007 A23D9/013 A23L1/00 A23L1/24 A23L1/30

A23L1/302 A23L2/00 A61K31/355 A61K8/49 A61K8/67 B65D81/00

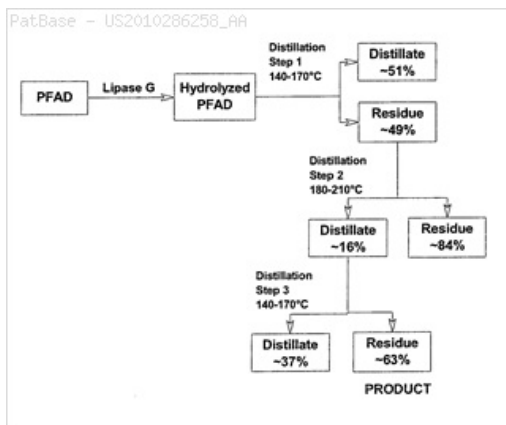
C07D311/72 C11B3/12 C11C1/04 C11C1/10

C12P17/06 (Advanced/Invention);

A23L1/30 A23L1/302 A61K31/352 A61K8/30 C11C1/00

C12P17/02 (Core/Invention)

CPC: A23D9/007 A61K8/678 A61K2800/522 A61Q19/00 C11B3/12 C11C1/045 A23L27/60 A23L33/105 A23L33/115 C12P17/06
European: A23D9/007 A23L1/24 A23L1/30B A23L1/30C A61K8/67L A61Q19/00 C11B3/12 C11C1/04B C12P17/06 K61K201/062 K61K800/522
US: 426/531 426/531S 426/580 426/580S 426/582 426/582S 426/590 426/590S 426/601 426/601S 426/618 426/618S 426/86 426/89 426/89S 435/125 435/125S 514/458



Family:

Publication number	Publication date	Application number	Application date
DE602008033206 D1	20140821	DE200860033206T	20080527
EP2155888 A1	20100224	EP20080750706	20080527
EP2155888 B1	20140709	EP20080750706	20080527
KR101481197 B1	20150109	KR20097026336	20080527
KR20100033968 A	20100331	KR20097026336	20080527
MY162051 A	20170531	MY20090004962	20080527
US2010286258 AA	20101111	US20080601287	20080527
US8673967 BB	20140318	US20080601287	20080527
WO08142433 A1	20081127	WO2008GB01801	20080527

Priority:

EP20070252128 20070524 EP20080750706 20080527 WO2008GB01801 20080527

Probable Assignee: LODERS CROKLAAN BV

Assignee(s): (std): BHAGGAN KRISHNADATH ; HARRIS JOHN B ; HARRIS JOHN J B ; LODERS CROKLAAN BV ; VAN WANROIJ MIRIAM ; WANROIJ MIRIAM VAN

Assignee(s): LODERS CROKLAAN B V ; HARRIS JOHN J

Inventor(s): (std): BHAGGAN KRISHNADATH ; VAN WANROIJ MIRIAM ; WANROIJ MIRIAM VAN ; VAN WANROIJ MARIAM ; HARRIS JOHN J B ; HARRIS JOHN B

Inventor(s): HARRIS JOHN J

Agent(s): DR SCHOEN NEYMEYR AND PARTNER MBB; STEVENS IAN EDWARD; POTTER CLARKSON LLP; MORGAN LEWIS AND BOCKIUS LLP; STEVENS IAN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

7) Family number: 48788097 (US2012209018A)

© PatBase

Title: METHOD FOR EXTRACTING UNSAPONIFIABLES FROM RENEWABLE RAW MATERIALS

Abstract: A method for extracting an unsaponifiable fraction from a renewable raw material selected among oilfruits, oleaginous seeds, oleoproteaginous seeds, seed husks, oil-yielding almonds, sprouts, stones and cuticles of fruits, high-fat raw materials from animals, algae, fungus or yeast, includes the following steps: a) dehydrating and packaging the renewable raw material, not resulting in any extraction of the fat; b) reactive crushing of the fatty packaged raw material in the presence of a light alcohol and a catalyst; c) evaporating the light alcohol; d) concentrating the liquid phase such as to obtain a concentrate including the unsaponifiable fraction diluted in fatty acid alkyl esters; e) saponifying the unsaponifiable concentrate; f) extracting the unsaponifiable fraction from the saponified mixture. The use of an unsaponifiable fraction or co-products obtained by implementing the method for preparing a composition such as a cosmetic, drug, food, or food additive or supplement is also described.

Classifications:

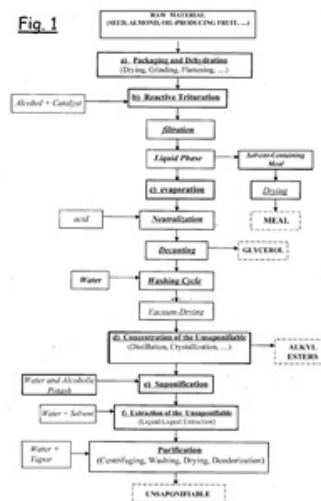
International (IPC 8-9): A23D9/02 A23L1/29 A23L33/00 A61K36/00 A61K8/92 A61P17/00 A61Q19/00 C11B C11B1/10 C11B11/00 C11B3/00 C11B3/04 C11B3/06 (Advanced/Invention); C11B (Subclass/Invention)

CPC: C11B3/006 C11B3/04 C11B3/06

European: C11B3/00E C11B3/04 C11B3/06

US: 554/12 554/13 554/13P 554/169 554/177 554/18 554/20 554/206 554/206S 554/21 554/21S 554/31 554/8 554/9

Fig. 1



Family:

Publication number	Publication date	Application number	Application date
AU2010309641 AA	20110428	AU20100309641	20101021
CA2778320 AA	20110428	CA20102778320	20101021
CN102648271 A	20120822	CN201080047939	20101021
CN102648271 B	20150311	CN201080047939	20101021
DE602010009889 D1	20131024	DE201060009889T	20101021
EP2491100 A1	20120829	EP20100785155	20101021
EP2491100 B1	20130828	EP20100785155	20101021
FR2951736 A1	20110429	FR20090057457	20091023
FR2951736 B1	20111230	FR20090057457	20091023
JP2013508495 T2	20130307	JP20120534751T	20101021
JP5812296 B2	20151111	JP20120534751T	20101021
MX2012004631 A1	20120823	MX20120004631	20101021
US2012209018 AA	20120816	US20100503509	20101021
US8735615 BB	20140527	US20100503509	20101021
WO11048339 A1	20110428	WO2010FR52247	20101021
ZA201202874 A	20121227	ZA20120002874	20120419

Priority:

FR20090057457 20091023 EP20100785155 20101021 WO2010FR52247 20101021

Probable Assignee: VALAGRO CARBONE RENOUVELABLE POITOU CHARENTES

Assignee(s): (std): PICCIRILLI ANTOINE ; VALAGRO CARBONE RENOUVELABLE POITOU CHARENTES

Inventor(s): (std): PICCIRILLI ANTOINE ; ANTOINE PICCIRILLI

Agent(s): GRIFFITH HACK; ROBIC; HARLE ET PHELIP; CENATIEMPO JULIE ADELINE ANNE; AQUINOV; YOUNG AND THOMPSON; CENATIEMPO JULIE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

8) Family number: 42928115 (US2011206804A)

© PatBase

Title: METHOD FOR PRODUCING DIACYLGLYCEROL-RICH FAT AND/OR OIL

Abstract: It is intended to provide a method for efficiently producing a diacylglycerol-rich fat and/or oil that has a low content of trans-unsaturated fatty acids and has a good color and a good flavor characteristic to diacylglycerols. A method for producing a diacylglycerol-rich fat and/or oil, by hydrolyzing a raw fat and/or oil by an enzymatic splitting method, and subjecting the fatty acids and glycerin obtained thereby to an esterification reaction, wherein a raw fat and/or oil containing undeodorized fat and/or oil in an amount of 50 percent by weight or more is used, and a deodorization treatment is carried out after the esterification reaction, to the extent that the relationship between the deodorization time (x) and the deodorization temperature (y) satisfies the following conditions (i) and (ii): $y \geq -2.59x + 566$ (i) $y \geq 617x - 0.0455$ (provided that $475 \leq y \leq 563$) (ii) wherein x represents the deodorization time (minutes), and y represents the deodorization temperature (K).

Classifications:

International (IPC 8-9): C11B3/16 C11C1/04 C11C1/06 C11C1/08 C11C3/02 C11C3/10 C12P7/64 (Advanced/Invention); C11C3/10 C12P7/64 (Advanced/Non-invention); C11B3/00 C11C1/00 C11C3/00 C12P7/64 (Core/Invention)

CPC: C11C1/08 C11C3/02 C12P7/6418 C12P7/6454 C11C3/04 C11C1/045

European: C11C1/08 C11C3/02 C12P7/64C2 C12P7/64E2B

US: 426/33 426/33P

Family:

Publication number	Publication date	Application number	Application date
--------------------	------------------	--------------------	------------------

CN101778946 A	20100714	CN200880102344	20080808
CN101778946 B	20130710	CN200880102344	20080808
EP2175030 A1	20100414	EP20080826987	20080808
EP2175030 A4	20120509	EP20080826987	20080808
EP2175030 B1	20181226	EP20080826987	20080808
JP2009040854 A2	20090226	JP20070206413	20070808
JP5101206 B2	20121219	JP20070206413	20070808
KR101511808 B1	20150413	KR20107001301	20080808
KR20100039347 A	20100415	KR20107001301	20080808
US2011206804 AA	20110825	US20080672285	20080808
WO09019893 A1	20090212	WO2008JP02179	20080808

Priority:

JP20070206413 20070808 WO2008JP02179 20080808

Probable Assignee: KAO CORP

Assignee(s): (std): KAO CORP ; KASE MINORU ; KOMATSU TOSHITERU

Inventor(s): (std): KASE MINORU ; KOMATSU TOSHITERU ; TOSHITERU KOMATSU ; MINORU KASE

Agent(s): HOFFMANN EITLE; PATENT CORPORATE BODY ARUGA PATENT OFFICE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

9) Family number: 28889122 (US5932261A) © PatBase

Title: Refining of edible oil rich in natural carotenes and vitamin E

Abstract: The invention discloses a process for the production of a natural carotene rich refined and deodorised oil by subjecting the oil to a pressure of less than 0.060 mbar and to a temperature of less than 200 DEG C. and wherein the process includes the steps of distilling the oil in a short-path distiller at a temperature range of 160 DEG C.-290 DEG C. and at pressures of 0.003 mbar to 0.08 mbar and removing free fatty acids (FFA) in the oil by condensation within the distiller. The FFA is removed by subjecting the mixture of the oil and the FFA to an internal condensor system operating at a temperature greater than the melting point of FFA in the oil. The process yields in refined, deodorised oil, in particular palm oil where the carotene and Vitamin E contained the feed oil is substantially retained in the processed oil.

Classifications:

International (ipc 8-9): A23D9/02 A23D9/04 C11B3/02 C11B3/12 (Advanced/Invention); A23D9/00 A23D9/02 C11B3/00 (Core/Invention)

International (ipc 1-7): A23D 9/00 A23D09/00 A23D9/00 A23D9/02 A23D9/04 C11B3/02 C11B3/12

CPC: A23D9/02 C11B3/12

European: A23D9/02 C11B3/12

US: 203/86 426/417 426/488 426/492 426/601 554/29

Family:

Publication number	Publication date	Application number	Application date
AT203561 E	20010815	AT19960118658T	19961121
AU199676614 A1	19980522	AU19960076614	19961115
AU719105 B2	20000504	AU19960076614	19961115
BRPI9612758 A	20000118	BR1996PI12758	19961115
CA2270344 AA	19980507	CA19962270344	19961115
CA2270344 C	20030422	CA19962270344	19961115
CN1111590 C	20030618	CN19961080490	19961115
CN1234824 A	19991110	CN19961080490	19961115
CO4771110 A1	19990430	CO19970029200	19970527
DE69614116 D1	20010830	DE19966014116	19961121
DE69614116 T2	20020314	DE19966014116T	19961121
DK0839896 T3	20010924	DK19960118658T	19961121
EP0839896 A1	19980506	EP19960118658	19961121
EP0839896 B1	20010725	EP19960118658	19961121
JP2002511108 T2	20020409	JP19980520382T	19961115
JP3938215 B2	20070627	JP19980520382T	19961115
LT4637 B	20000327	LT19990000057	19990520
LT99057 A	19991125	LT19990000057	19990520
MY127634 A	20061229	MY19960004534	19961031
TH24339 B	20080822	TH19961003836	19961108
TH26565 A	19970929	TH19961003836	19961108
US5932261 A	19990803	US19960745569	19961108
US6177114 BA	20010123	US19990358950	19990722
WO9818888 A1	19980507	WO1996SG00015	19961115
WO9818888 C1	20000406	WO1996SG00015	19961115

Priority:

MY19960004534 19961031 US19960745569 19961108 BR1996PI12758 19961115
WO1996SG00015 19961115 US19990358950 19990722

Probable Assignee: GLOBAL PALM PRODUCTS SDNBHD

Assignee(s): (std): GLOBAL PALM PRODUCTS CO LTD ; GLOBAL PALM PRODUCTS SDN BHD ; HAI LOO TRADING PTE LTD ; GLOBAL PALMITIC PRODUCTS CO ; CAROTINA SDN BHD

Assignee(s): GLOBAL PALM PRODUCTS CO ; GLOBAL PALM PRODUCTS SDNBHD PASIR GUDANG INDUSTRIA ; GLOBAL PALM PRODUCTS SDNBHD ; GLOBAL PALM PRODUCTS SDN BHD JOHOR DARUL TAKZIM PL ; GLOBAL PALM PRODUCTS SDN BHD PASIR GUDANG

Inventor(s): (std): U R UNNITHAN ; UNNITHAN U R ; UNNITHAN UNNIKRISHNAN RAMACHAN ; UNNITHAN UNNIKRISHNAN RAMACHANDRAN ; UR WENSONTER ; WENSONTER U R ; UNNIKRISHNAN RAMACHANDRAN UNNITHAN

Inventor(s): U R WENSONTER
Agent(s): CULLENS PATENT AND TRADE MARK ATTORNEYS; CULLENS PTY LTD; ERNESTO CAVELIER
Designated states: AL AM AT AU AZ BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CZ DE DK EE ES FI FR GA GB GE GN GR HU IE IL IS IT JP KE KG KP KR KZ LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SN SZ TD TG TJ TM TR TT UA UG UZ VN

10) Family number: 8657144 (US5512691A)

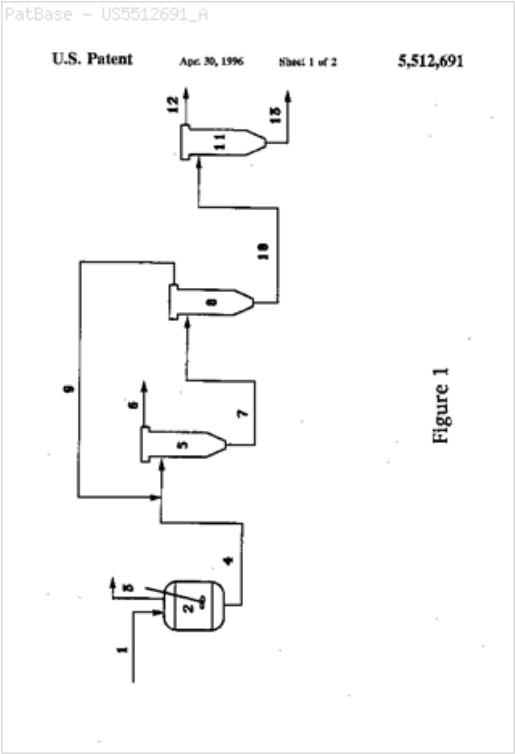
© PatBase

Title: Process for the production of tocopherol concentrates

Abstract: Disclosed is an improved process for the preparation of tocopherol concentrates from vegetable oil distillates. Tocopherol concentrates are obtained containing 20-80 percent tocopherol by weight, with an overall recovery of tocopherol of 72 percent to 97 percent. The process is comprised first of an esterification reaction where the more volatile alcohols are converted to their less volatile fatty acid esters, followed by a series of distillation steps where components boiling higher and lower than the tocopherols are separated from tocopherols and other like boiling substances. Advantages of the process are that tocopherol concentrates are produced efficiently and economically in a minimum number of steps without the use of solvents and with a relatively small capital investment.

Classifications:

International (IPC 8-9): C07D311/72 (Advanced/Invention)
International (IPC 1-7): A61K31/355 C07D311/04 C07D311/58 C07D311/70 C07D311/72 C11B7/00
CPC: C07D311/72
European: C07D311/72
US: 203/28 203/34 203/35 203/38 549/413



Family:

Publication number	Publication date	Application number	Application date
AR000081 AA	19970521	AR19950334129	19951106
AU199641530 A1	19960531	AU19960041530	19951107
BRPI9509626 A	19980106	BR1995PI09626	19951107
CA2203550 AA	19960517	CA19952203550	19951107
CN1171106 A	19980121	CN19951096967	19951107
CN1176920 C	20041124	CN19951096967	19951107
CZ9701296 A3	19980218	CZ19970001296	19951107
DE69521437 D1	20010726	DE19956021437	19951107
DE69521437 T2	20011018	DE19956021437T	19951107
EP0790990 A1	19970827	EP19950939870	19951107
EP0790990 B1	20010620	EP19950939870	19951107
ES2157350 T3	20010816	ES19950939870T	19951107
IL115888 A0	19960131	IL19950115888	19951106
JP10508605 T2	19980825	JP19950515525T	19951107
JP4142096 B2	20080827	JP19960515525T	19951107
MX9703275 A1	19970731	MX19970003275	19951107
PT790990 T	20010928	PT19950939870T	19951107
SK53397 A3	19980506	SK19970000533	19951107
TH12042 B	20020225	TH19951002759	19951101
TH20185 A	19960829	TH19951002759	19951101
TR9501378 A2	19960621	TR19950001378	19951107
TR960395 A2	19960621	TR19950001378	19951107
US5512691 A	19960430	US19940334901	19941107
WO9614311 A1	19960517	WO1995US14612	19951107
ZA9509433 A	19960515	ZA19950009433	19951107

Priority:

US19940334901 19941107 WO1995US14612 19951107

Probable Assignee: EASTMAN CHEMICAL CO

Assignee(s): (std): EASTMAN CHEM CO

Assignee(s): EASTMAN CHEMICAL CO ; EASTMAN CHEMICAL CO KINGSFORT ; EASTMAN CHEMICAL COMPANY ; Eastman Chemical Company.

Inventor(s): (std): SUMMER CHARLES EDWAN ; SUMMER CHARLES EDWAN JR ; SUMNER C E ; SUMNER CHARLES E ; SUMNER CHARLES E JR ; WILLIAMS H L C III ; WILLIAMS HAMPTON L C III ; WILLIAMS HAMPTON L CH III ; WILLIAMS HAMPTON LOYD CHIP ; WILLIAMS LOYD ; SUMNER EDWAN ; BARNICKI DONALD ; WILLIAMS HAMPTON LOYD CHIP III ; SUMNER CHARLES EDWAN JR ; BARNICKI SCOTT DONALD ; WILLIAMS H CHIP ; SUMNER JR CHARLES E ; BARNICKI SCOTT D ; BARNICKI S D ; III HAMPTON LOYD CHIP WILLIAMS ; JR CHARLES EDWAN SUMNER

Inventor(s): Jr.Williams III ; SCOTT DONALD BARNICKI ; Scott DonaldSumner ; SD BARNICKI ; Barnicki ; CE SUMNER ; Charles Edwan ; CHARLES EDWAN SUMMER ; CHARLES EDWAN SUMMER JR ; CHARLES EDWAN SUMNER JR ; Hampton Loyd Chip ; HAMPTON LOYD CHIP WILLIAMS ; HAMPTON LOYD CHIP WILLIAMS III ; HLC WILLIAMS III ; S D BARNICKI ; H L C WILLIAMS III ; C E SUMNER

Agent(s): PHILLIPS ORMONDE FITZPATRICK

Designated states: AT AU BE BR CA CH CN CZ DE DK ES FR GB GR HU IE IT JP LU MC MX NL PT RU SE SK UA

11) Family number: 40799155 (US2007260080A) © PatBase

Title: LIGHT-COLOR PLANT OILS AND RELATED METHODS

Abstract: Methods of producing light-color, color stable plant oils are presented. Cationic ion exchange resins have been found to be effective in removing color bodies from plant oils to produce a light-color, color stable plant oil. The methods may be applied to plant oils, including corn oil. Color stable corn oils having a light color are also presented.

Classifications:

International (IPC 8-9): A23D9/04 C11B3/00 C11B3/02 C11B3/04 C11B3/10 C11C1/08 (Advanced/Invention);

A23D9/02 C11B3/00 C11C1/00 (Core/Invention)

CPC: A23D9/00 C11B3/006 C11B3/06 C11B3/10

European: A23D9/00 C11B3/00E C11B3/06 C11B3/10

US: 554/175 554/195 554/206 554/210

Family:

Publication number	Publication date	Application number	Application date
BRPI0707414 A2	20110503	BR2007PI07414	20070314
CA2636365 AA	20080704	CA20072636365	20070314
EP2010001 A2	20090107	EP20070753152	20070314
MX2008012210 A1	20081002	MX20080012210	20070314
US2007260080 AA	20071108	US20070686068	20070314
US7638644 BB	20091229	US20070686068	20070314
WO07126594 A2	20071108	WO2007US06503	20070314
WO07126594 A3	20080508	WO2007US06503	20070314

Priority:

US20060788254P 20060331 US20070686068 20070314 WO2007US06503 20070314

Probable Assignee: ARCHER DANIELS MIDLAND CO

Assignee(s): (std): ARCHER DANIELS MIDLAND CO ; LEE INMOK ; PFALZGRAF LISA MARIE

Assignee(s): ARCHER DANIELS MIDLAND COMPANY

Inventor(s): (std): LEE INMOK ; PFALZGRAF LISA M ; PFALZGRAF LISA MARIE

Inventor(s): LISA MARIE PFALZGRAF ; PFALZGRAF LISA ; INMOK LEE

Agent(s): RIDOUT AND MAYBEE LLP; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAEUSSER ANWALTSSOZIENTAET; KIRKPATRICK AND LOCKHART PRESTON GATES ELLIS LLP HENRY W OLIVER BUILDING; K AND L GATES LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

12) Family number: 29084183 (US6623604B) © PatBase

Title: METHOD OF RECOVERING FREE FATTY ACIDS HAVING LOW ESTER CONTENT AND HIGH ACID VALUE

Abstract: Methods of recovering free fatty acids having a low ester content from alkanol-containing solutions and oil mixtures containing tocopherols are disclosed which involve atmospheric or vacuum stripping at low temperatures. The recovered fatty acids have a high acid value, and have high commercial value in the production of high quality (high acid value) products, e.g., dimerized fatty acids, useful in polyamide resins.

Classifications:

International (IPC 8-9): B01D3/14 B01D3/38 C07C29/80 C11C1/10 (Advanced/Invention);

B01D3/14 B01D3/34 C07C29/00 C11C1/00 (Core/Invention)

International (IPC 1-7): B01D3/00 C07C29/80 C09F5/12 C11B3/14

CPC: B01D3/143 B01D3/38 C07C29/80 C11C1/10 C11C1/103

European: B01D3/14B B01D3/38 C07C29/80 C11C1/10 C11C1/10B

US: 203/46 203/79 203/80 203/85 203/92 203/96 530/207 554/175 554/21 568/913

Family:

Publication number	Publication date	Application number	Application date
US6623604 BA	20030923	US20000586917	20000605

Priority:

US20000586917 20000605

Probable Assignee: COGNIS COGNIS CORP CORP

Assignee(s): (std): COGNIS CORP

Assignee(s): COGNIS (COGNIS CORP) CORP ; COGNIS COGNIS CORP CORP

Inventor(s): (std): BLEWETT C WILLIAM ; ELSASSER A FRED

13) Family number: 15997199 (ZA200103914A)

© PatBase

Title: PROCESS FOR THE EXTRACTION AND CONCENTRATION OF LIPOSOLUBLE VITAMINS, AND PROVITAMINS, GROWTH FACTORS AND ANIMAL AND VEGETABLE HORMONES PRESENT IN RESIDUES AND BY-PRODUCTS OF INDUSTRIALIZED ANIMAL AND VEGETAL PRODUCTS.

Abstract: ABSTRACT "EXTRACTION AND CONCENTRATION PROCESS OF LIPO SOLUBLE VITAMINS AND PROVITAMINS, GROWTH FACTORS AND ANIMAL AND VEGETABLE HORMONES PRESENT IN THE RESIDUES AND BY-PRODUCTS OF THE INDUSTRIALIZATION OF ANIMAL AND VEGETABLE PRODUCTS". A new process for the extraction and concentration of unsaponifiable substances, containing liposoluble vitamins and provitamins, growth factors and animal and vegetable hormones, from residues of the industrialization of animal or vegetable products. This process does not require the use of solvents. Its main goal is to obtain the separation of these "valuable products", by means of distillation/evaporation at high vacuum, and the production of fatty acids and other high quality organic acids, once the recovery of the unsaponifiable fraction of residues from the industrialization of animal or vegetable products, is of great commercial interest. This is due to the fact that the "valuable products", have in many cases, vitamin activity, such as: tocopherols, sterols, carotenoids, vitamin A, vitamin K, vitamin D, while other products present cholesterol reducing properties, such as: sterols, tocotrienols, esqualene, etc; or even, anti-oxidant properties like: tocopherols, tocotrienols; as well as anti-carcinogenic properties such as: tocotrienols, sterols, lycopene, and alpha-carotene. Some other products are used as a structure for chemical-synthesis, like for example: sterols for hormone synthesis, vitamin D synthesis; and other products which have nutraceutic properties, apart from the commercial interest in some products, the cosmetic formulas of which present emulsifying properties, emulsion stabilizers and/or viscosity modifiers like for example sterols.

Classifications:

International (IPC 8-9): B01D3/10 B01D3/12

C11B13/00 (Advanced/Invention);

B01D3/10 B01D3/12 C11B13/00 (Core/Invention)

International (IPC 1-7): B01D3/10 B01D3/12 C07G13/00 C07G17/00
C11B13/00 C11B3/00

CPC: Y02W30/74 C11B13/005 C11B13/00

European: C11B13/00 C11B13/00B

PatBase - W00198444_A2

WO 01/98444 1/2 PCT/BR00/001

Table I

% Zn SOAP FROM BLSS	% Na SOAP FROM BLSS	MELTING POINT (° C)
0	100	230
28	72	170
44	56	128
61	39	96
100	0	81

% Fe SOAP FROM BLSS	% Na SOAP FROM BLSS	MELTING POINT (° C)
0	100	230
28	72	171
44	56	140
61	39	120
100	0	60

% Mg SOAP FROM BLSS	% Na SOAP FROM BLSS	MELTING POINT (° C)
0	100	230
28	72	170
44	56	140
61	39	115
100	0	95

Family:

Publication number	Publication date	Application number	Application date
AR025486 AA	20021127	AR2000P104600	20000901
AT387485 E	20080315	AT20010937888T	20010604
AU2001263677 AA	20020102	AU20010263677	20010604
AU200163677 A1	20020102	AU20010063677	20010604
AU200163677 A5	20020102	AU20010063677	20010604
BRPI0002359 A	20020205	BR2000PI02359	20000619
CA2408660 AA	20021112	CA20012408660	20010604
CL2000002233 A1	20011011	CL20000002233	20000821
DE60132999 D1	20080410	DE20016032999	20010604
EP1292658 A2	20030319	EP20010937888	20010604
EP1292658 B1	20080227	EP20010937888	20010604
JP2004500478 T2	20040108	JP20020504395T	20010604
MXPA02012856 A1	20030521	MX2002PA12856	20010604
NO20025797 A	20021203	NO20020005797	20021203
NO20025797 A0	20021203	NO20020005797	20021203
NZ523593 A	20040827	NZ20010523593	20010604
W00198444 A2	20011227	W02001BR00071	20010604
W00198444 A3	20020411	W02001BR00071	20010604
ZA200103914 A	20020715	ZA20010003914	20010101

Priority:

BR2000PI02359 20000619 WO2001BR00071 20010604

Probable Assignee: RESITEC IND QUIMICA LTDA

Assignee(s): (std): RESITEC IND QUIMICA LTD ; RESITEC IND QUIMICA LTDA ; RESITEC INDUSTRIA QUIMICA LTD ; RESITEC INDUSTRIA QUIMICA LTDA

Assignee(s): ROHR RODOLFO

Inventor(s): (std): ROHR RODOLFO ; TRUJILLO QUIJANO JOSE ANIBAL ; RODOLFO ROHR ; JOSE ANIBAL TRUJILLO

14) Family number: 30262203 (US2005256326A)

© PatBase

Title: PROCESS FOR DECREASING ENVIRONMENTAL POLLUTANTS IN AN OIL OR A FAT, A VOLATILE ENVIRONMENTAL POLLUTANTS DECREASING WORKING FLUID, A HEALTH SUPPLEMENT, AND AN ANIMAL FEED PRODUCT

Abstract: The invention relates to a process for decreasing the amount of environmental pollutants in a mixture comprising a fat or an oil, being edible or for use in cosmetics, the fat or oil containing the environmental pollutants, which process comprises the steps of adding a volatile working fluid to the mixture, where the volatile working fluid comprises at least one of a fatty acid ester, a fatty acid amide, a free fatty acid and a hydrocarbon, and subjecting the mixture with the added volatile working fluid to at least one stripping processing step, in which an amount of environmental pollutant pre-sent in the fat or oil, being edible or for use in cosmetics, is separated from the mixture together with the volatile working fluid. The present invention also relates to a volatile environmental pollutants decreasing working fluid, for use in decreasing an amount of environmental pollutants present in a fat or oil, being edible or for use in cosmetics. In addition, the present invention relates to a health supplement, a pharmaceutical and an animal feed product prepared according to the process mentioned above.

FDA Data:

Application number	Active ingredient	Proprietary name	Applicant	Date of approval
021654	OMEGA-3-ACID ETHYL ESTERS	LOVAZA	SMITHKLINE BEECHAM	Nov 10, 2004

Classifications:

International (IPC 8-9): A01N37/02 A01N37/06 A23D9/00 A23D9/04 A23K1/00 A23K1/10 A23K1/16 A23K1/18 A23L1/015 A23L1/29 A23L1/30 A61K31/20 A61K31/202 A61K31/22 A61K31/225 A61K31/23 A61K31/335 A61K35/60 A61K8/36 A61K8/92 A61K8/96 A61K8/97 A61K9/02 A61L2/18 A61P13/12 A61P25/28 A61P29/00 A61P3/02 A61P3/06 A61P43/00 A61P9/00 A61P9/10 A61P9/12 A61Q90/00 A61Q99/00 C07C233/00 C07C57/02 C07D311/02 C11B1/00 C11B11/00 C11B3/00 C11B3/10 C11B3/12 C11B3/14 C11C3/00 C11C3/10 C11D3/00 F16D55/24 (Advanced/Invention); F16D55/00 (Advanced/Non-invention); A23D9/00 C11B3/00 (Core/Invention)

International (IPC 1-7): A23D9/00 A23D9/04 A23K1/00 A23K1/10 A23K1/16 A23L1/30 A61K35/60 A61K7/00 A61K9/02 A61P13/12 A61P25/28 A61P29/00 A61P3/06 A61P9/00 A61P9/10 A61P9/12 C07C51/43 C11B11/00 C11B3/00 C11B3/12 C11B3/14

CPC: A23K20/158 C11B3/006 A23D9/00 A23V2002/00 C11B3/12 C11B3/14 C11C3/10 A23V2200/3262 F16D55/24 F16D2055/0008 A23L33/115 A23K50/80 Y02A40/818 A23D9/04

European: A23D9/00 A23K1/16 A23K1/18 A23L1/30 C11B3/00 C11B3/12 C11B3/14 C11C3/10 F16D55/24 K23V2/00 K23V200/3262 R16D55/00D2

US: 424/523 424/523P 426/601 426/601P 426/601S 514/452 514/452S 514/546 514/547 514/552 514/558 549/339 549/399 549/399S 554/12 554/121 554/121S 554/175 554/175P 554/175S 554/224 554/224S 554/3 554/35 554/35S

PatBase - US2005256326_AA

Present Application Publication: Nov. 17, 2005 Sheet 1 of 2 US 2005/0256326 A1

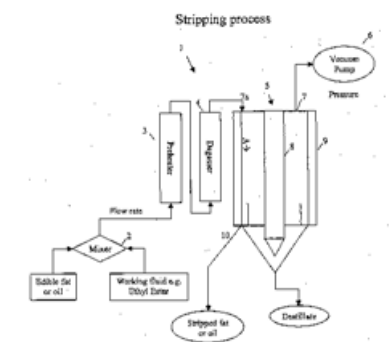


Figure 1

Family:

Publication number	Publication date	Application number	Application date
AR040544 AA	20050413	AR2003P102507	20030711
AR079872 AB	20120229	AR2010P102597	20100715
AR098306 AB	20160526	AR2014P104147	20141104
AT371007 E	20070915	AT20030764038T	20030711
AT453701 E	20100115	AT20030764048T	20030708
AU2003242925 AA	20040402	AU20030242925	20030708
AU2003242925 BB	20070201	AU20030242925	20030708
AU2003242925 CA	20150924	AU20030242925	20030708
AU2003249109 AA	20040402	AU20030249109	20030711
AU2013203201 AA	20130502	AU20130203201	20130409
AU2013203205 AA	20130502	AU20130203205	20130409
AU2013203205 BB	20160811	AU20130203205	20130409
CA2489084 AA	20041208	CA20032489084	20030708
CA2489084 C	20131210	CA20032489084	20030708
CA2492720 AA	20050110	CA20032492720	20030711
CA2492720 C	20150825	CA20032492720	20030711
CA2833808 AA	20040122	CA20032833808	20030708
CA2843044 AA	20040122	CA20032843044	20030711
CA2843044 C	20180306	CA20032843044	20030711
CL2003001403 A1	20040416	CL20030001403	20030709
CL48790 B	20130102	CL20030001403	20030709
CN100475939 C	20090408	CN20038016439	20030708
CN101554210 A	20091014	CN200910007434	20030708
CN101554210 B	20120718	CN200910007434	20030708
CN1668728 A	20050914	CN20038016439	20030708
CY1109971 T1	20140910	CY20101100295T	20100330

DE60315840 D1	20071004	DE20036015840T	20030711
DE60315840 D1	20071004	DE20036015840	20030711
DE60315840 T2	20080515	DE20036015840T	20030711
DE60315840 T3	20170105	DE20036015840T	20030711
DE60330778 D1	20100211	DE20036030778	20030708
DE60347669 D1	20150709	DE20036047669	20030708
DK1523541 T3	20100426	DK20030764048T	20030708
DK1534807 T3	20080107	DK20030764038T	20030711
DK1534807 T4	20160829	DK20030764038T	20030711
DK2295529 T3	20150831	DK20030185785T	20030708
DK2295529 T3	20150831	DK20100185785T	20030708
EP1523541 A1	20050420	EP20030764048	20030708
EP1523541 B1	20091230	EP20030764048	20030708
EP1534807 A1	20050601	EP20030764038	20030711
EP1534807 B1	20070822	EP20030764038	20030711
EP1534807 B2	20160615	EP20030764038	20030711
EP2169038 A1	20100331	EP20090180207	20030708
EP2295529 A2	20110316	EP20100185785	20030708
EP2295529 A3	20120725	EP20100185785	20030708
EP2295529 B1	20150527	EP20100185785	20030708
ES2293032 T3	20080316	ES20030764038T	20030711
ES2293032 T5	20161201	ES20030764038T	20030711
ES2339238 T3	20100518	ES20030764048T	20030708
ES2538792 T3	20150624	ES20100185785T	20030708
JP2005532460 T2	20051027	JP20040520966T	20030708
JP3905538 B2	20070418	JP20040520966T	20030708
NO20040740 A	20040218	NO20040000740	20040218
NO20050653 A	20050208	NO20050000653	20050208
NO20110116 A	20050208	NO20110000116	20110125
NO329023 B1	20100726	NO20040000740	20040218
NO329023 B2	20150817	NO20040000740	20040218
NO330457 B1	20110418	NO20050000653	20050208
NO330457 B2	20110418	NO20050000653	20050208
NO343216 B1	20181203	NO20110000116	20110125
PT1523541 T	20100323	PT20030764048T	20030708
SE200202188 A0	20020711	SE20020002188	20020711
SI1523541 T1	20100430	SI20030031781T	20030708
TR201509615 T4	20150821	TR20150009615T	20030708
US2005256326 AA	20051117	US20030517812	20030608
US2005256326 AA	20051117	US20040517812	20041214
US2005256326 AA	20051117	US20040517812	20041214
US2006134303 AA	20060622	US20050520897	20050725
US2008234375 AA	20080925	US20080113356	20080501
US2010104657 AA	20100429	US20090649383	20091230
US2010233281 AA	20100916	US20100725593	20100317
US2010267829 AA	20101021	US20100764475	20100421
US7678930 BB	20100316	US20050520897	20050725
US7718698 BB	20100518	US20080113356	20080501
US7732488 BB	20100608	US20030517812	20030708
WO04007654 A1	20040122	WO20031B02827	20030708
WO04007655 A1	20040122	WO20031B02776	20030711

Priority:

SE20020002188	20020711	WO20031B02827	20030408	WO20031B02827	20030608
AU20030242925	20030708	CA20032833808	20030708	CA20032489084	20030708
EP20030764048	20030708	US20030517812	20030708	EP20090180207	20030708
EP20100185785	20030708	WO20031B02827	20030708	CA20032492720	20030711
EP20030764038	20030711	WO20031B02776	20030711	US20040517812	20041214
US20050520897	20050725	US20080113356	20080501	US20090649383	20091230
US20100725593	20100317	US20100764475	20100421	AU20130203201	20130409
AU20130203205	20130409	CA20132489084	20131206	CA20142492720	20140306

Probable Assignee: PRONOVA BIOPHARMA NORGE AS

Assignee(s): (std): BREIVIK HARALD ; PRONOVA BIOCARE A S ; PRONOVA BIOCARE AS ; PRONOVA BIOPHARMA NORGE ; PRONOVA BIOPHARMA NORGE AS ; SONDBO SVERRE ; THORSTAD OLAV ; SONDBOE SVERRE

Inventor(s): (std): THORSTAD OLAV ; SONDBOE SVERRE ; OLAV THORSTAD ; HARALD BREIVIK ; BREIVIK HARALD ; SVERRE SONDBO ; SONDBO SVERRE ; THORSTAD OLAV

Inventor(s): THORSTAD OLAV 3942 ; BREIVIK HARALD THORSTAD OLAV

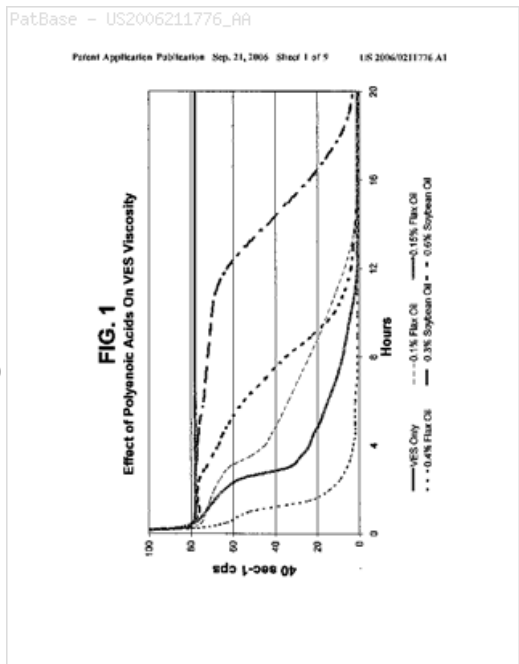
Agent(s): MINTER ELLISON; PHILLIPS ORMONDE FITZPATRICK; ASHURST AUSTRALIA; BLAKE CASSELS AND GRAYDON LLP; JOHANSSON; WEICKMANN AND WEICKMANN PATENTANWALTE RECHTSANWALT PARTMBB; LILLEGRAVEN RITA; WEICKMANN AND WEICKMANN PARTMBB; WEISS WOLFGANG; WEICKMANN AND WEICKMANN; DE ELZABURU ALBERTO; UNGRIA JAVIER; EVIN KAZMIRCI; FITZPATRICK CELLA HARPER AND SCINTO; FINNEGAN HENDERSON FARABOW GARRETT AND DUNNER LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

Abstract: Fluids viscosified with viscoelastic surfactants (VESs) may have their viscosities reduced (gels broken) by the direct or indirect action of a composition that contains at least one unsaturated fatty acid, such as a monoenoic acid and/or polyenoic acid. The unsaturated fatty acid may be contained in an oil-soluble internal phase of the fluid. The breaking composition is believed to act possibly by rearranging, disaggregating or otherwise attacking the micellar structure of the VES-gelled fluid. In a specific, non-limiting instance, a brine fluid gelled with an amine oxide surfactant can have its viscosity broken with an oil such as flax (linseed) oil, soybean oil and/or fish oils containing relatively high amounts of unsaturated fatty acids. The unsaturated fatty acids are thought to auto-oxidize into products such as aldehydes, ketones and saturated fatty acids that break the VES gel.

Classifications:

International (IPC 8-9): B01D17/05 C09K3/00 C09K8/00 C09K8/035 C09K8/04 C09K8/504 C09K8/506 C09K8/58 C09K8/584 C09K8/588 C09K8/60 C09K8/64 C09K8/66 C09K8/68 C09K8/72 C09K8/74 C09K8/82 C09K8/86 C23F11/18 E21B21/00 E21B33/00 E21B33/13 E21B43/04 E21B43/16 E21B43/22 E21B43/25 E21B43/26 E21B43/267 E21B43/27 (Advanced/Invention); B01D17/04 C09K3/00 C09K8/02 C09K8/50 C09K8/58 C09K8/60 E21B33/00 E21B43/16 E21B43/25 (Core/Invention)
CPC: C09K8/72 C09K8/74 C09K8/524 C09K8/602 C09K8/506 C09K8/5045 C09K2208/10 C09K2208/26 C09K2208/30 C09K8/584 C09K8/68 E21B37/06
European: C09K8/504B C09K8/506 C09K8/60G C09K8/68 C09K8/72 C09K8/74 M09K208/10 M09K208/26 M09K208/30
US: 1/1 166/246 166/268 166/270.1 166/270.100P 166/279 166/281 166/281S 166/282 166/282S 166/283 166/293 166/300 166/300S 166/303 166/305.1 166/305.100S 166/307 166/307S 166/308.2 166/308.200S 166/308.3 166/310 166/312 166/371 166/400 507/200 507/200S 507/201 507/201S 507/203 507/203P 507/203S 507/206 507/206S 507/238 507/238S 507/239 507/239S 507/240 507/244 507/245 507/246 507/252 507/256 507/256S 507/259 507/259S 507/260 507/260P 507/265 507/265P 507/265S 507/266 507/266P 507/267 507/267S 507/269 507/269S 507/271 507/271P 507/272 507/272S 507/276 507/276S 507/277 507/277S 507/921 507/921S 516/135 516/135P 516/194 516/194P



Family:

Publication number	Publication date	Application number	Application date
AU2006227412 AA	20060928	AU20060227412	20060316
AU2006227412 BB	20110616	AU20060227412	20060316
AU2008236474 AA	20081016	AU20080236474	20080320
AU2008236474 BB	20130321	AU20080236474	20080320
BRPI1014600 A2	20160405	BR2010PI14600	20100430
CA2601876 AA	20070921	CA20062601876	20060316
DE602008029769 D1	20140220	DE200860029769T	20080320
DK2134805 T3	20140127	DK20080732575T	20080320
EP1869285 A1	20071226	EP20060738691	20060316
EP1869285 B1	20090304	EP20060738691	20060316
EP2134805 A1	20091223	EP20080732575	20080320
EP2134805 B1	20140108	EP20080732575	20080320
EP2430111 A2	20120321	EP20100772622	20100430
EP2430111 A4	20130320	EP20100772622	20100430
MX2009008185 A1	20090812	MX20090008185	20080319
NO20075096 A	20071213	NO20070005096	20071009
RU2007137986 A	20090427	RU20070137986	20060316
RU2394061 C2	20100710	RU20070137986	20060316
US2006211776 AA	20060921	US20060373044	20060310
US2007056737 AA	20070315	US20060517688	20060908
US2007151726 AA	20070705	US20070689203	20070321
US2007299142 AA	20071227	US20070849799	20070904
US2008103066 AA	20080501	US20080970389	20080107
US2008149334 AA	20080626	US20080047090	20080312
US2008153719 AA	20080626	US20080039205	20080228
US2008227672 AA	20080918	US20070849780	20070904
US2008248978 AA	20081009	US20070697954	20070409
US2008271888 AA	20081106	US20080116586	20080507
US2009272534 AA	20091105	US20090435908	20090505
US2010056400 AA	20100304	US20090612867	20091105
US2010197531 AA	20100805	US20100758336	20100412
US2010261624 AA	20101014	US20100758175	20100412
US2011224110 AA	20110915	US20110113375	20110523
US2011253365 AA	20111020	US20110090433	20110420
US2012329685 AA	20121227	US20120596937	20120828
US2015057197 AA	20150226	US20140526764	20141029
US7347266 BB	20080325	US20060517688	20060908
US7527102 BB	20090505	US20070689203	20070321
US7615517 BB	20091110	US20080970389	20080107
US7645724 BB	20100112	US20060373044	20060310
US7696134 BB	20100413	US20070849780	20070904
US7696135 BB	20100413	US20070849799	20070904
US7875575 BB	20110125	US20070697954	20070409
US7967068 BB	20110628	US20080047090	20080312
US8056630 BB	20111115	US20090435908	20090505

US8101557 BB	20120124	US20100758175	20100412
US8616284 BB	20131231	US20110090433	20110420
US8877693 BB	20141104	US20100758336	20100412
US8921285 BB	20141230	US20120596937	20120828
US9150777 BB	20151006	US20140526764	20141029
WO06102044 A1	20060928	WO2006US09658	20060316
WO08115941 A1	20080925	WO2008US57405	20080319
WO08124270 A1	20081016	WO2008US57669	20080320
WO09032524 A1	20090312	WO2008US73571	20080819
WO09089232 A2	20090716	WO2009US30244	20090107
WO09089232 A3	20091015	WO2009US30244	20090107
WO10129425 A2	20101111	WO2010US33226	20100430
WO10129425 A3	20110324	WO2010US33226	20100430
WO13106059 A2	20130718	WO2012US32913	20120410
WO13106059 A3	20130912	WO2012US32913	20120410

Priority:

US20050662336P	20050316	US20050717307P	20050915	US20060373044	20060310
WO2006US09658	20060316	US20060517688	20060908	US20070689203	20070321
US20070697954	20070409	US20070849799	20070904	US20070849780	20070904
US20080970389	20080107	US20080039205	20080228	US20080047090	20080312
WO2008US57405	20080319	EP20080732575	20080320	WO2008US57669	20080320
US20080116586	20080507	US20090435908	20090505	US20090612867	20091105
US20100758336	20100412	US20100758175	20100412	WO2010US33226	20100430
US20110090433	20110420	US20110113375	20110523	US20120596937	20120828
US20140526764	20141029				

Probable Assignee: BAKER HUGHES INC

Assignee(s): (std): BAKER HUGHES ; BAKER HUGHES INC ; BEJKE KH JUZ INKORPOREJTED ; CREWS JAMES B ; HUANG TIANPING ; WILLINGHAM JOHN R ; TIANPING HUANG ; WILLINGHAM JOHN ROBERT

Assignee(s): BAKER HUGHES INC HOUSTON

Inventor(s): (std): YANG JIANG ; WILLINGHAM JOHN ROBERT ; WILLINGHAM JOHN R ; TIANPING HUANG ; JOVANCICEVIC VLADIMIR ; HUANG TIANPING ; CREWS JAMES B ; KRUS DZHEJMS B

Inventor(s): JOHN R WILLINGHAM ; CREWS JAMES B WILLIS ; HUANG TIANPING SPRING ; JAMES B CREWS ; WILLINGHAM JOHN R CYPRESS ; CREWS JAMES ; WILLINGHAM JOHN ; JOHN ROBERT WILLINGHAM

Agent(s): FPA PATENT ATTORNEYS PTY LTD ; FREEHILLS PATENT AND TRADE MARK ATTORNEYS ; FREEHILLS PATENT ATTORNEYS ; HERBERT SMITH FREEHILLS ; SIM AND MCBURNEY ; BEACHAM ANNABEL ROSE ; HOFFMANN BENJAMIN ; MADAN MOSSMAN AND SRIRAM PC ; KATRINA MANKO ; MOSSMAN KUMAR AND TYLER PC ; DUPHORNE DARIN H ; LITTLEFIELD STEPHEN A ; CHANDLER KIMBERLY

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

16) Family number: 3164234 (US5019668A)

© PatBase

Title: Recovery of carotenoids

Abstract: A process for the recovery of carotenes and the production of carotene concentrates from palm oil. Esterified palm oil containing carotenes, or other solutions containing carotenes, is mixed with an edible oil, part by part. The resulting mixture is subjected to a pressure of less than 7.999 N/m² and a temperature of less than 200 DEG C., without incurring substantial decomposition of the carotenes during the process.

Classifications:

International (IPC 8-9): A61K36/00 C07C401/00 C07C403/02 C07C403/24 C07C67/00 C07C7/04 C09B61/00 (Advanced/Invention); A61K36/00 C07C401/00 C07C403/00 C07C67/00 C07C7/00 C09B61/00 (Core/Invention)

International (IPC 1-7): A61K35/78 B01D3/34 C07C175/00 C07C403/02 C07C403/24 C07C7/04 C09B61/00

CPC: C07C403/02 C07C403/24 C09B61/00

European: C07C403/02 C07C403/24 C09B61/00

US: 203/38 426/540 426/651 585/864

PatBase - JP7080834_B4 1 表				
温度 (°C)	110	130	150	170
カロテン濃縮物(%)	6650	6687	6754	6985

Family:

Publication number	Publication date	Application number	Application date
AT110362 E	19940915	AT19890305826T	19890609
AU198936320 A1	19891221	AU19890036320	19890614
AU634476 B2	19930225	AU19890036320	19890614
DE68917655 D1	19940929	DE19896017655	19890609
DE68917655 T2	19941222	DE19896017655T	19890609
EP0349138 A2	19900103	EP19890305826	19890609
EP0349138 A3	19901212	EP19890305826	19890609
EP0349138 B1	19940824	EP19890305826	19890609
ES2058526 T3	19941101	ES19890305826T	19890609
JP2040358 A2	19900209	JP19890153561	19890615
JP2045120 C3	19960409	JP19890153561	19890615
JP7080834 B4	19950830	JP19890153561	19890615
US5019668 A	19910528	US19890364375	19890609

Priority:

AU1988PI08768	19880614	AU1988PI08770	19880615	AU19890036320	19890614
---------------	----------	---------------	----------	---------------	----------

Probable Assignee: MALAYSIAN PALM OIL BOARD

Assignee(s): (std): PAAMU OIL RES AND DEV BOARD ; PALM OIL RES AND DEV BOARD ; PALM OIL RESEARCH AND DEV BOARD

Assignee(s): PALM OIL RESEARCH AND DEVELOPMENT BOARD ; PALM OIL RESEARCH AND DEVELOPMENT BOARD KAJANG SELANGOR MY ; PALM OIL RESEARCH DEVELOPMENT BOARD SELANGOR MALAY ; PALM OIL RESEARCH DEVELOPMENT BOARD ; MALAYSIAN PALM OIL BOARD ; MALAYSIAN PALM OIL BOARD 6 PERSIARAN INST

Inventor(s): (std): CHOO YUEN MAY ; HOCK AUGUSTINE O S ; KEAT OOI C ; MAY CHOO Y ; ONG SOON HOCK AUGUSTINE ; OOGIYUSUCHIN ON SUUN HOTSUKU ; OOI CHENG KEAT ; OOI CHIEN KIITO ; SHIYOO YUEN MEI ; AUGUSTINE SOON HOCK ONG ; CHENG KEAT OOI ; YUEN MAY CHOO

Inventor(s): YUEN MAY CHOO 58100 KUALA LUMPUR MY ; CHENG KEAT OOI 13050 BUTTERWORTH MY ; AUGUSTINE SOON HOCK ONG KUALA LUMPUR MY ; SOON HOCK AUGUSTINE ONG

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD

Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

17) Family number: 30606250 (US2004158083A)

© PatBase

Title: METHOD OF EXTRACTING AND ISOLATING MINOR COMPONENTS FROM VEGETABLE OIL

Abstract: A process for the separation and recovery of minor components from vegetable oil such as palm oil. Esterified palm oil is subjected to molecular distillation giving a concentrate rich in minor components. The concentrate is then adsorbed to adsorbents such as normal phase silica gel, reversed phase (particularly C18) silica gel or neutral alumina as well as polymer adsorbents such as polyethylene glycol and polyacrylate polyalcohol. Minor components such as squalene, carotenes, tocopherols and sterols are then selectively desorbed, separated and recovered using solvents operating at isocratic conditions. The desorption of the said minor components are sped up by applying pressure of between 0.2 to 50 bar. By the same method, individual tocopherol isomers from palm oil can also be separated and recovered.

Classifications:

International (IPC 8-9): A23D9/06 A23L1/30 A23L1/302 B01J20/26 C07B63/00 C07B63/02 C07C11/21 C07C403/24 C07C7/00 C07D311/72 C07J75/00 C07J9/00 C11B3/00 C11B3/10 C11B3/12 C11C3/00 (Advanced/Invention); A23D9/06 A23L1/30 A23L1/302 B01J20/22 C07B63/00 C07C11/00 C07C403/00 C07C7/00 C07D311/00 C07J75/00 C07J9/00 C11B3/00 C11C3/00 (Core/Invention)

International (IPC 1-7): A23D9/06 A23L1/30 A23L1/302 B01J20/26 C07B63/00 C07B63/02 C07C11/21 C07C403/24 C07C51/43 C07D311/04 C07D311/72 C07J75/00 C07J9/00

CPC: A23L33/11 A23L33/15 C11C3/003 C11B3/001 C11B3/10 C11B3/12

European: A23L1/302 A23L1/30B2 C11B3/00B C11B3/10 C11B3/12 C11C3/00B

US: 549/410 549/413 552/54 552/540 554/176 585/864

Family:

Publication number	Publication date	Application number	Application date
AT323428 E	20060515	AT20030257486T	20031127
DE60304658 D1	20060524	DE20036004658	20031127
DE60304658 D1	20060524	DE20036004658T	20031127
DE60304658 T2	20070405	DE20036004658T	20031127
EP1424013 A1	20040602	EP20030257486	20031127
EP1424013 B1	20060419	EP20030257486	20031127
JP2004175805 A2	20040624	JP20030397344	20031127
JP4642341 B2	20110302	JP20030397344	20031127
US2004158083 AA	20040812	US20030721001	20031125
US7161055 BB	20070109	US20030721001	20031125

Priority:

MY20020004432 20021127

Probable Assignee: MALAYSIAN PALM OIL BOARD

Assignee(s): (std): MALAYSIAN PALM OIL BOARD ; MALAYSIAN PALM OIL BOARD KAJAN

Assignee(s): MALAYSIAN PALM OIL BOARD KAJANG ; NG MEI HAN ; BASIRON YUSOF ; CHOO YUEN MAY ; MA AH NGAN

Inventor(s): (std): BASIRON YUSOF ; CHOO YUEN MAY ; MA AH NGAN ; NG MEI HAN

Agent(s): MASUI CHUJI; SHAMOTO ICHIO; KOBAYASHI YASUSHI; TOMITA HIROYUKI; CHIBA AKIO; NAKATA TAKASHI; MORGAN LEWIS AND BOCKIUS LLP

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

18) Family number: 16046255 (US6344573B)

© PatBase

Title: PROCESS FOR EXTRACTION AND CONCENTRATION OF LIPOSOLUBLE VITAMINS AND PROVITAMINS, GROWTH FACTORS AND ANIMAL AND VEGETABLE HORMONES FROM RESIDUES AND BY-PRODUCTS OF INDUSTRIALIZED ANIMAL AND VEGETABLE PRODUCTS

Abstract: A process for the extraction and concentration of unsaponifiable substances, containing liposoluble vitamins and provitamins, growth factors and animal and vegetable hormones, from residues of the industrialization of animal or vegetable products. This process does not require the use of solvents. Its main goal is to obtain the separation of these "valuable products", by means of distillation/evaporation at high vacuum, and the production of fatty acids and other high quality organic acids, once the recovery of the unsaponifiable fraction of residues from the industrialization of animal or vegetable products, is of great commercial interest. This is due to the fact that the "valuable products", have in many cases, vitamin activity, such as: tocopherols, sterols, carotenoids, vitamin A, vitamin K, vitamin D, while other products present cholesterol reducing properties, such as: sterols, tocotrienols, squalene, etc; or even, anti-oxidant properties like: tocopherols, tocotrienols; as well as anti-carcinogenic properties such as: tocotrienols, sterols, lycopene, and alpha-carotene. Some other products are used as a structure for chemical-synthesis, like for example: sterols for hormone synthesis, vitamin D synthesis; and other products which have nutraceutical properties, apart from the commercial interest in some products, the cosmetic formulas of which present emulsifying properties, emulsion stabilizers and/or viscosity modifiers like for example sterols.

Classifications:

International (IPC 8-9): C11B13/00 (Advanced/Invention); C11B13/00 (Core/Invention)

International (IPC 1-7): C07C1/00

CPC: Y02W30/74 C11B13/00 C11B13/005

European: C11B13/00 C11B13/00B

US: 554/19 554/195 554/202 554/8

Family:

Publication number	Publication date	Application number	Application date
US6344573 BA	20020205	US20000668370	20000925

Priority:

US20000668370 20000925

Probable Assignee: RESITEC INDUSTRIAL QUIMICA LTDA**Assignee(s):** (std): RESITEC IND QUIMICA LTDA**Assignee(s):** RESITEC INDUSTRIA QUIMICA LTDA ; RESITEC INDUSTRIAL QUIMICA LTD ; RESITEC INDUSTRIAL QUIMICA LTDA ; RESITEC PARTICIPACOES LTD ; RESITEC PARTICIPACOES LTDA**Inventor(s):** (std): ROHR RODOLFO ; TRUJILLO QUIJANO JOSE ANIBAL**19) Family number: 42439270 (US2008282606A)**

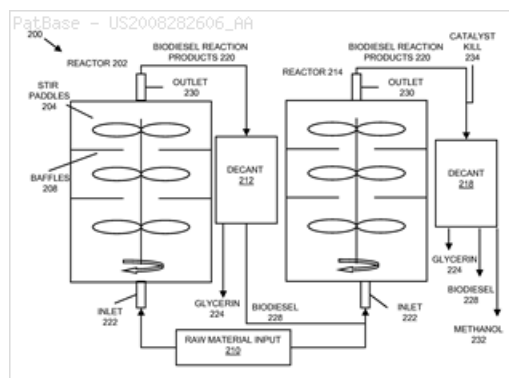
© PatBase

Title: SYSTEM AND PROCESS FOR PRODUCING BIODIESEL

Abstract: In embodiments of the present invention, systems for producing a biodiesel product from multiple feedstocks may include a biodiesel reactor, a decanter, a flash evaporator and a distillation column. In other embodiments of the present invention, a process for producing a biodiesel comprises distilling a biodiesel reaction product to remove tocopherols and sterol glucosides and, optionally, adding biodiesel stabilizers to the resultant biodiesel to enhance thermal stability. The components of the system are interrelated so that parameters may be regulated to allow production of a custom biodiesel product.

Classifications:**International (IPC 8-9):** B01J19/18 B01J8/00 C10G3/00 C10L1/08 C10L1/18 (Advanced/Invention);

B01J19/18 B01J8/00 C10G3/00 C10L1/00 C10L1/10 (Core/Invention)

CPC: Y02P30/20 C10L1/026 C10G2300/1011 C11C1/10 C11C3/003 Y02E50/13**European:** C10L1/02D C11C1/10 C11C3/00B M10G300/10B Y02E50/13**US:** 422/228 422/228S 44/308 44/308P**Family:**

Publication number	Publication date	Application number	Application date
CA2720815 AA	20101007	CA20082720815	20080416
CA2720815 C	20151222	CA20082720815	20080416
US2008282606 AA	20081120	US20080103294	20080415
WO08130974 A2	20081030	WO2008US60434	20080416
WO08130974 A3	20090528	WO2008US60434	20080416

Priority:

US20070912089P 20070416

US20070982995P 20071026

US20080022793P 20080122

US20080103294 20080415

WO2008US60434 20080416

Probable Assignee: IMPERIUM PROCESS TECHNOLOGIES LLC**Assignee(s):** (std): GOODALL BRIAN L ; IMPERIUM PROCESS TECHNOLOGIES ; IMPERIUM PROCESS TECHNOLOGIES LLC ; PLAZA JOHN P**Assignee(s):** RENEWABLE ENERGY GROUP INC**Inventor(s):** (std): GOODALL BRIAN L ; PLAZA JOHN P**Agent(s):** BORDEN LADNER GERVAIS LLP; STRATEGIC PATENTS PC; NORTRUP JOHN H ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

20) Family number: 55621304 (US2015144479A)

© PatBase

Title: DEACIDIFICATION OF FATS AND OILS

Abstract: The invention relates to method for deacidification of fats and oils comprising: feeding stream (1) to a stripping section; condensing the volatile phase in a high temperature condensing zone, sending the condensed phase to distillation A; distilling the condensed phase, obtaining a volatile stream; passing the volatile stream along with the vapour phase from the condensation zone to a cold condensation zone obtaining a condensate and a stream (4); allowing stream (4) to continue to vacuum system and subjecting the cold condensate to distillation B; and producing a stream of fatty acids (5) and a stream of micronutrients (6).

Classifications:**International (IPC 8-9):** B01D1/22 B01D3/06 B01D3/10 B01D3/12

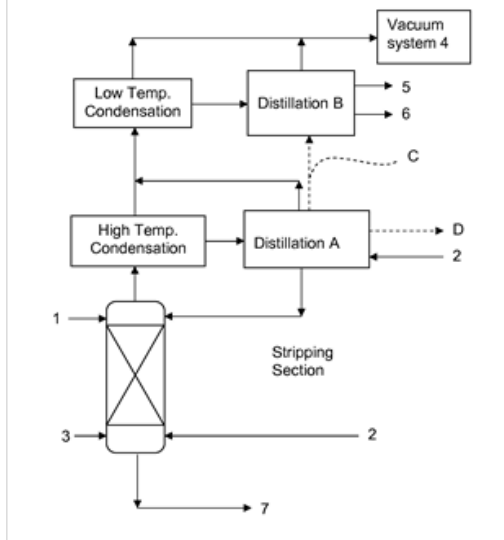
B01D3/14 B01D3/26 C11B3/12 C11B3/14 (Advanced/Invention);

C11B3/12 (Core/Invention)

CPC: B01D3/148 B01D3/10 B01D3/06 B01D3/26 B01D1/22

C11B3/14 C11B3/12

US: 203/76

**Family:**

Publication number	Publication date	Application number	Application date
AR091740 AA	20150225	AR2013P102473	20130711
AU2013289471 AA	20140116	AU20130289471	20130619
AU2013289471 BB	20150806	AU20130289471	20130619
BR112015000338 A2	20170627	BR20151100338	20130619
CA2876079 AA	20141209	CA20132876079	20130619
CA2876079 C	20160927	CA20132876079	20130619
CN104508100 A	20150408	CN201380036992	20130619
CN104508100 B	20170630	CN201380036992	20130619
CO7151545 A2	20141229	CO20140274032	20141212
DE602012003472 D1	20141204	DE201260003472T	20120712
DK2684944 T3	20150105	DK20120176123T	20120712
EA024144 B1	20160831	EA20150090201	20130619
EA201590201 A1	20150529	EA20150090201	20130619
EP2684944 A1	20140115	EP20120176123	20120712
EP2684944 B1	20141022	EP20120176123	20120712
ES2527991 T3	20150203	ES20120176123T	20120712
ID201604368 A	20160722	ID2015P0000823	20130619
IN02718KN2014 A	20150508	IN2014KN02718	20141126
IN300360 B	20180831	IN2014KN02718	20141126
JP2015527438 T2	20150917	JP20150520877T	20130619
JP6037487 B2	20161207	JP20150520877T	20130619
MX2015000369 A1	20150414	MX20150000369	20130619
MX359511 B	20180928	MX20150000369	20130619
TH146434 A	20160229	TH20151000118	20130619
UA113768 C2	20170310	UA20150000926	20130619
US2015144479 AA	20150528	US20130406286	20130619
US9816047 BB	20171114	US20130406286	20130619
UY34904 A1	20140228	UY20130034904	20130712
WO14009117 A1	20140116	WO2013EP62705	20130619

Priority:

EP20120176123 20120712 WO2013EP62705 20130619

Probable Assignee: ALFA LAVAL CORPORATE AB**Assignee(s):** (std): ALFA LAVAL AB ; ALFA LAVAL CORP AB**Assignee(s):** ALFA LAVAL CORPORATE AB ; ALFA LAVAL CORPORATE ABP.O. BOX 73SE-221 00LUNDSE ; SARUP BENT**Inventor(s):** (std): SARUP BENT ; BENT SARUP**Inventor(s):** SARUP BENTDK**Agent(s):** WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERRAIS LLP; JUAN PABLO CADENA SARMIENTO; MARKS AND CLERK LUXEMBOURG LLP; ALFA LAVAL ATTORNEYS; VALLEJO JUAN PEDRO; IR MIGNI MYRIASANDRA SH MIP MSEL; BIRCH STEWART KOLASCH AND BIRCH LLP**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**21) Family number:** 31969322 (US2007238886A)

© PatBase

Title: RECOVERY OF PHYTONUTRIENTS FROM OILS**Abstract:** The present invention relates to an improved and integrated process for the extraction and purification of tocotrienols or tocopherols, carotenoids and sterols from vegetable and other edible oils. Fatty acids in the vegetable oils are

subjected to alcoholic osterification to form ester-rich layer that includes fatty acid alkyl esters, carotenoids, tocotrienols or tocopherols, and sterols. The advantages of this process are that the tocotrienols or tocopherols, carotenoids and sterols are produced efficiently without any substantial decomposition or degradation of these phytonutrients.

Classifications:

International (IPC 8-9): B01D3/12 C07C15/00 C07C403/02 C07C403/24 C07C51/23 C07D C07D311/04 C07D311/72 C07J9/00 C11B11/00 C11B3/10 C11B3/12 C11B3/16 C11B7/00 C11C3/10 (Advanced/Invention); A23L1/275 C07C51/16 C07C51/23 C07D311/00 C09B61/00 C11B11/00 C11B3/00 C11B7/00 C11C3/00 (Core/Invention); A61K C07D (Subclass/Invention)
International (IPC 1-7): A23L1/275 A61K C07D311/72 C09B61/00
CPC: Y02P20/125 C11B7/00 C07C403/24 C07D311/72
European: C07C403/24 C07D311/72 C11B7/00
US: 549/413 552/502 552/545 554/175 554/208

Family:

Publication number	Publication date	Application number	Application date
BRPI0416795 A	20070306	BR2004PI16795	20041118
BRPI0416795 B1	20140916	BR2004PI16795	20041118
CN1964960 A	20070516	CN200480033830	20041118
CN1964960 B	20130529	CN200480033830	20041118
ECSP066650 A	20061025	EC2006SP06650	20060616
EP1689353 A2	20060816	EP20040811485	20041118
EP1689353 A4	20090415	EP20040811485	20041118
EP1689353 B1	20130109	EP20040811485	20041118
HK1103739 A1	20140214	HK20070112113	20071107
HK1103739 A1	20071228	HK20070112113	20071107
HK1103739 A3	20071228	HK20070112113	20071107
HK1103739 B	20140214	HK20070112113	20071107
IN02832DN2006 A	20070803	IN2006DN02832	20060518
IN253041 B	20120622	IN2006DN02832	20060518
JP2007521382 T2	20070802	JP20060541388T	20041118
JP5327730 B2	20131030	JP20060541388T	20041118
TH42383 B	20141217	TH20041004591	20041118
TH74291 A	20060109	TH20041004591	20041118
US2007238886 AA	20071011	US20040579637	20041118
US7544822 BB	20090609	US20040579637	20041118
WO05051294 A2	20050609	WO2004US38774	20041118
WO05051294 A3	20061026	WO2004US38774	20041118

Priority:

MY20030004440 20031119 WO2004US38774 20041118

Probable Assignee: CAROTECH BHD

Assignee(s): (std): CAROTECH BHD ; CAROTECH INC ; HO DAVID S S ; HO DAVID SUE SAN ; SAN DAVID HO SUE

Assignee(s): DAVID HO SUE SAN

Inventor(s): (std): HO DAVID SUE SAN ; SAN DAVID HO SUE ; SAN HO DAVID SUE ; HO DAVID S S

Inventor(s): DAVID HO SUE SAN ; HO DAVID ; HO DAVID SS

Agent(s): MEYER UNKOVIC AND SCOTT LLP; OBERDICK ESQ DAVID G; DAVID G

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NA NE NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

22) Family number: 3411424 (US5142072A) © PatBase

Title: SELECTIVE ESTERIFICATION OF LONG CHAIN FATTY ACID MONOGLYCERIDES WITH MEDIUM CHAIN FATTY ACID ANHYDRIDES

Abstract: A process for the selective esterification of long chain length fatty acid monoglycerides, particularly monobehenin, with medium chain length fatty acid anhydrides, particularly a mixture of C8 and C10 saturated fatty acid anhydrides is disclosed. In this process, an at least about 60 percent pure C18-C24 fatty acid monoglyceride or mixture thereof is esterified with an at least about 50 percent pure C6-C10 fatty acid anhydride or mixture thereof at a temperature of from about 90 DEG to about 190 DEG C. in the substantial absence of an esterification catalyst. The mole ratio of fatty acid anhydride to monoglyceride used in this monoglyceride esterification is at least about 2:1.

Classifications:

International (IPC 8-9): C07C67/02 C07C67/08 C07C69/30 C11B3/00 C11C3/00 C11C3/02 C11C3/04 C11C3/08 (Advanced/Invention); C11C3/00 (Advanced/Non-invention); C07C67/00 C07C69/00 C11B3/00 C11C3/00 (Core/Invention)

International (IPC 1-7): A23L1/307 C07C67/00 C07C67/02 C07C67/08 C07C69/30 C07C69/52 C11C3/00 C11C3/02 C11C3/04 C11C3/08

CPC: C07C67/08 C11B3/001 C11C3/02 C11C3/08

European: C07C67/08 C11B3/00B C11C3/02 C11C3/08

US: 554/172

Family:

Publication number	Publication date	Application number	Application date
AU199169025 A1	19910718	AU19910069025	19901119
AU657901 B2	19950330	AU19910069025	19901119
CA2069885 AA	19920528	CA19902069885	19901119
CA2069885 C	19980707	CA19902069885	19901119
DE69025773 D1	19960411	DE19906025773	19901119
DE69025773 T2	19961031	DE19906025773T	19901119

脂肪酸脂肪酸(モノイオン酸として) = T × N × 28.2
試料重量 (g)

Title: PRODUCTION OF SOLID PREPARATIONS OF WATER-SOLUBLE, SPARINGLY WATER-SOLUBLE OR WATER-INSOLUBLE ACTIVE COMPOUNDS

Abstract: A process is described for producing solid preparations of at least one water-soluble, sparingly water-soluble or water-insoluble active compound suitable for the food and animal feed sectors or for pharmaceutical and cosmetic applications. In addition, the invention relates to oily suspensions in which these preparations are present as disperse phase, and to the use of these preparations as additive to animal feeds, foods, pharmaceuticals and cosmetic preparations.

Classifications:

International (IPC 8-9): A23K1/00 A23K1/16 A23K1/20 A23K20/174 A23K20/179 A23K40/00 A23K40/10 A23K40/20 A23K40/30 A23L1/00 A23L1/27 A23L1/275 A23L1/30 A23L1/303 A23L1/305 A23L33/155 A23P1/06 A61K31/01 A61K31/015 A61K31/045 A61K31/522 A61K47/00 A61K47/42 A61K8/00 A61K8/04 A61K8/11 A61K8/30 A61K8/31 A61K8/34 A61K8/35 A61K9/00 A61K9/10 A61K9/14 A61K9/16 A61K9/18 A61K9/28 A61K9/50 A61K9/51 A61Q1/12 B01J2/08 C07C11/21 C07C403/24 (Advanced/Invention); A23K1/20 B01J2/08 (Advanced/Non-invention); A23K1/00 A23K1/16 A23K1/20 A23L1/00 A23L1/27 A23L1/302 A23L1/305 A23P1/06 A61K31/01 A61K31/015 A61K31/045 A61K31/519 A61K47/00 A61K47/42 A61K8/00 A61K8/04 A61K8/11 A61K8/30 A61K9/00 A61K9/10 A61K9/14 A61K9/16 A61K9/18 A61K9/28 A61K9/50 A61K9/51 A61Q1/12 B01J2/02 C07C11/00 C07C403/00 (Core/Invention)

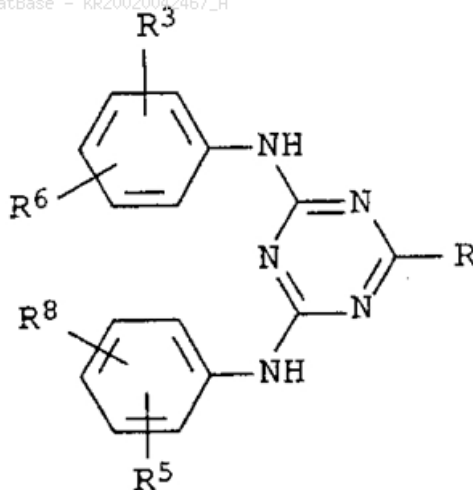
International (IPC 1-7): A23K1/00 A23K1/16 A23K1/20 A23L1/00 A23L1/27 A23L1/275 A23L1/29 A23L1/30 A23L1/303 A23L1/305 A23L12/75 A23P1/06 A61K31/01 A61K31/015 A61K31/045 A61K31/07 A61K31/122 A61K31/15 A61K31/522 A61K47/42 A61K7/00 A61K7/02 A61K7/40 A61K7/42 A61K7/48 A61K8/00 A61K9/10 A61K9/113 A61K9/14 A61K9/18 A61K9/50 A61K9/13 A61P3/02 B01J2/08 C07C11/21 C07C403/24

CPC: A23K20/174 A23K20/179 A23K40/00 A23K40/10 A23K40/20 A23K40/30 B82Y5/00 A23V2002/00 A61K8/11 A61K8/31 A61K8/35 A61K9/146 A61K9/1658 A61K31/522 A61K2800/412 A23L5/44 A23L33/155 A23P10/40 A61Q1/12 A61K9/5169 A23K40/25

European: A23K1/00B A23K1/00B1 A23K1/00B2 A23K1/00B3 A23K1/16B A23K1/16C A23L1/00P6 A23L1/275B2 A23L1/303 A23P1/06 A61K31/522 A61K7/00M4 A61K8/11 A61K8/11C A61K8/31 A61K8/35 A61K9/14H6 A61K9/16H6H A61K9/51H6H A61Q1/12 B82Y5/00 K23V2/00 K61K800/412

US: 424/400 424/439 424/441 424/442 424/484 424/489 424/499 424/499P 424/500

PatBase - KR20020042467_R



Family:

Publication number	Publication date	Application number	Application date
AT358469 E	20070415	AT20010126756T	20011109
AU200195146 A1	20020530	AU20010095146	20011128
AU200195146 A5	20020530	AU20010095146D	20011128
AU783606 B2	20051117	AU20010095146	20011128
BRPI0105753 A	20020702	BR2001PI05753	20011129
CA2363823 AA	20020529	CA20012363823	20011123
CN1364426 A	20020821	CN20011030192	20011129
DE10059213 A1	20020613	DE20001059213	20001129
DE10129713 A1	20030109	DE20011029713	20010622
DE50112285 D1	20070516	DE20015012285	20011109
DK1213013 T3	20070702	DK20010126756T	20011109
EP1213013 A2	20020612	EP20010126756	20011109
EP1213013 A3	20040102	EP20010126756	20011109
EP1213013 B1	20070404	EP20010126756	20011109
ES2282181 T3	20071016	ES20010126756T	20011109
JP2002255931 A2	20020911	JP20010361568	20011127
KR100760764 B1	20071004	KR20010074554	20011128
KR20020042467 A	20020605	KR20010074554	20011128
US2002110599 AA	20020815	US20010988109	20011119
US7105176 BB	20060912	US20010988109	20011119

Priority:

DE20001009231 20001129	DE20001059213 20001129	DE20001059231 20001129
DE20011009713 20010622	DE20011029713 20010622	DE20015012285 20011109
CA20012363823 20011123		

Probable Assignee: BASF SE

Assignee(s): (std): AUWETER HELMUT ; BASF AG ; BASF AKTIENGELLSCHAFT ; BASF AKTIENGESELLSCHAFT ; BASF SE ; BOHN HERIBERT ; LUDDECKE ERIK ; HINZ WILLY ; RUNGE FRANK ; PFEIFFER ANGELIKA MARIA

Inventor(s): (std): DDECKE ERIK L ; WILLY HINZ ; HERIBERT BOHN ; HELMUT AUWETER ; H POEN ; H OWIT ; FRANK RUNGE ; ERIK LUDDECKE ; E LDECK ; ANGELIKA MARIA PFEIFFER ; RUNGE FRANK DR ; RUNGE FRANK ; POEN H ; PFEIFFER ANGELIKA MARIA DR ; PFEIFFER ANGELIKA MARIA ; OWIT H ; LUEDDECKE ERIK DR ; LUEDDECKE ERIK ; LUDDECKE ERIK ; LDECK E ; HINZ WILLY DR ; HINZ WILLY ; BOHN HERIBERT ; AUWETER HELMUT DR ; AUWETER HELMUT ; LUEDDECKE ERICK ; LUDDECKE ERIK DR

Inventor(s): ERIK L³DDECKE

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; ROBIC; FUJITA TAKASHI; ISHII SADAJI; HIRAKI YUSUKE; NOVAK DRUCE AND QUIGG LLP; JASON D

Designated states: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT RO SE SI TR

25) Family number: 49119455 (US2012258232A)

© PatBase

Title: METHOD FOR MANUFACTURING REFINED FAT OR OIL

Abstract: Provided is a method for manufacturing refined fats and oils, including: treating fats and oils by bringing the fats and oils into contact with an adsorbent; and subsequently treating the fats and oils by bringing the fats and oils into contact with water vapor under at least one condition selected from the following conditions: (condition 1) the time for which the fats and oils are brought into contact with the water vapor in a temperature range of 175 degrees centigrade or more and 205

degrees centigrade or less is from 5 to 110 minutes; (condition 2) the time for which the fats and oils are brought into contact with the water vapor in a temperature range of more than 205 degrees centigrade and 215 degrees centigrade or less is from 5 to 50 minutes; and (condition 3) the time for which the fats and oils are brought into contact with the water vapor in a temperature range of more than 215 degrees centigrade and 230 degrees centigrade or less is from 5 to 30 minutes.

Classifications:

International (IPC 8-9): A23D7/00 A23D7/02 A23D9/00 A23D9/007 A23D9/02 C11B11/00 C11B3/10 C11B3/12 C11B3/14 C11C3/00 C11C3/02 C11C3/04 (Advanced/Invention); A23D9/007 A23D9/02 A23L1/24 A23L27/60 (Advanced/Non-invention); A23D9/02 C11C3/00 (Core/Invention); A23D9/02 (Core/Non-invention)

CPC: A23D7/001 A23D7/003 A23D9/007 A23D9/02 A23D7/02 C11B3/10 C11B3/14

European: A23D7/00B A23D7/00D A23D7/02 A23D9/02 C11B3/10 C11B3/14

US: 426/417 426/601 426/605 426/611 554/1 554/115 554/223 554/224 554/227

1572290 - TW1572290_B

四、指定代表圖：

(一)本案指定代表圖為：(無)

(二)本代表圖之元件符號簡單說明：

五、本案若有化學式時，請揭示最能顯示發明特徵的化學式：

(無)

Family:

Publication number	Publication date	Application number	Application date
AU2010331272 AA	20110623	AU20100331272	20101214
BR112012014688 A2	20160405	BR20121114688	20101214
CA2784400 AA	20110623	CA20102784400	20101214
CA2784400 C	20171017	CA20102784400	20101214
CN102656257 A	20120905	CN201080056576	20101214
CN102656257 B	20140416	CN201080056576	20101214
CN102666823 A	20120912	CN201080056843	20101214
EP2514811 A1	20121024	EP20100837600	20101214
EP2514811 A4	20160803	EP20100837600	20101214
EP2514813 A1	20121024	EP20100837601	20101214
EP2514813 A4	20160803	EP20100837601	20101214
IN05212DN2012 A	20151023	IN2012DN05212	20120613
IN289828 B	20171124	IN2012DN05212	20120613
JP2011144343 A2	20110728	JP20100083199	20100331
JP2011213856 A2	20111027	JP20100083264	20100331
JP2015129293 A2	20150716	JP20150023089	20150209
JP5947931 B2	20160706	JP20150023089	20150209
KR101820179 B1	20180118	KR20127014932	20101214
KR20120104231 A	20120920	KR20127014932	20101214
KR20120115260 A	20121017	KR20127014994	20101214
MY160242 A	20170228	MY20120002639	20101214
MY161043 A	20170414	MY20120002650	20101214
RU2012129918 A	20140127	RU20120129918	20101214
RU2549933 C2	20150510	RU20120129918	20101214
TH127430 A	20130920	TH20121002812	20101214
TW201129321 A	20110901	TW20100143832	20101214
TWI572290 B	20170301	TW20100143832	20101214
US2012258232 AA	20121011	US20100516415	20101214
US2012259133 AA	20121011	US20100516560	20101214
US8884043 BB	20141111	US20100516560	20101214
US8927039 BB	20150106	US20100516415	20101214
WO11074574 A1	20110623	WO2010JP72477	20101214
WO11074575 A1	20110623	WO2010JP72478	20101214

Priority:

JP20090283660 20091215 JP20100083199 20100331 JP20100083264 20100331
WO2010JP72478 20101214 WO2010JP72477 20101214 JP20150023089 20150209

Probable Assignee: KAO CORP

Assignee(s): (std): ABE TETSUYA ; FUKUHARA SHINPEI ; HOMMA RIKI ; KAO CORP ; KASE MINORU ; SHIBATA KEIJI ; KOMATSU TOSHITERU ; SHIMIZU MASAO ; MORIWAKI JUNYA

Assignee(s): KAO KORP OREJSHN

Inventor(s): (std): FUKUHARA SHINPEI ; KASE MINORU ; ABE TETSUYA ; SHIBATA KEIJI ; KOMATSU TOSHITERU ; MORIWAKI JUNYA ; SHIMIZU MASAO ; HOMMA RIKI ; MINORU KASE ; KEIJI SHIBATA ; SHINPEI FUKUHARA ; TETSUYA ABE ; TOSHITERU KOMATSU ; RIKI HOMMA ; JUNYA MORIWAKI ; MASAO SHIMIZU ; FUKUKHARA SINPEI ; SIMIDZU MASAO ; MORIVAKI DZUNIA ; ABE TETSUJA ; KOMATSU TOSITERU ; KHOMMA RIKI ; SIBATA KEIDZI

Agent(s): PHILLIPS ORMONDE FITZPATRICK; SMART AND BIGGAR; HOFFMANN EITLE; TAKANO TOSHIO; PATENT

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

26) Family number: 51892465 (US2014066644A)

© PatBase

Title: METHOD FOR PRODUCING OIL CONTAINING HIGHLY UNSATURATED FATTY ACID USING LIPASE

Abstract: A method for lowering content of a sterol in a highly unsaturated fatty acid-concentrated oil in a method to concentrate a highly unsaturated fatty acid by using a lipase reaction, may include removing the free form of the sterol from a raw material oil that includes a highly unsaturated fatty acid-containing glyceride prior to performing the lipase reaction; and thereafter concentrating the highly unsaturated fatty acid in the glyceride by using a lipase that is less reactive for the highly unsaturated fatty acid.

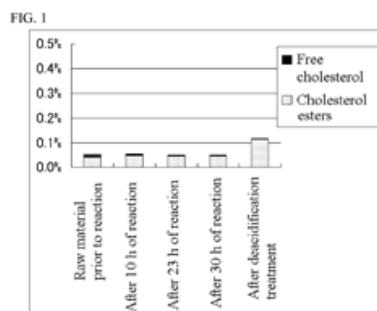
Classifications:

International (IPC 8-9): A23D9/00 A23D9/007 A23D9/04 C11B1/02 C11B3/00 C11B3/12 C11C1/00 C11C1/10 C11C3/00 C11C3/08 C12P7/64 (Advanced/Invention)

CPC: C11B3/003 A23D9/007 A23D9/04 C11B1/025 C11B3/001 C11B3/12 C11C1/002 C11C1/10 C11C3/00 C11C3/08 C12P7/6472

US: 435/271 554/224

PatBase - US2014066644_AA



Family:

Publication number	Publication date	Application number	Application date
DE602012033713 D1	20170803	DE201260033713T	20120302
EP2682453 A1	20140108	EP20120752142	20120302
EP2682453 A4	20140813	EP20120752142	20120302
EP2682453 B1	20170621	EP20120752142	20120302
JP2012118173 A1	20140707	JP20130502410T	20120302
JP5416861 B1	20140212	JP20130502410T	20120302
JP5416861 B2	20140212	JP20130502410T	20120302
US2014066644 AA	20140306	US20120002806	20120302
US9029584 BB	20150512	US20120002806	20120302
WO12118173 A1	20120907	WO2012JP55334	20120302

Priority:

JP20110046621 20110303 EP20120752142 20120302 WO2012JP55334 20120302
JP20130502410 20120302

Probable Assignee: NIPPON SUISAN KAISHA LTD

Assignee(s): (std): DOISAKI NOBUSHIGE ; HATA KAZUHIKO ; IKEMOTO HIDEO ; MATSUSHIMA KAZUNORI ; NIPPON SUISAN KAISHA LTD ; TOKIWA SHINJI

Inventor(s): (std): TOKIWA SHINJI ; MATSUSHIMA KAZUNORI ; IKEMOTO HIDEO ; HATA KAZUHIKO ; DOISAKI NOBUSHIGE

Agent(s): VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB; VOSSIUS AND PARTNER; CANTOR COLBURN LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

27) Family number: 30353493 (US5190618A)

© PatBase

Title: PRODUCTION OF HIGH CONCENTRATION TOCOPHEROLS AND TOCOTRIENOLS FROM PALM-OIL BY-PRODUCTS

Abstract: A process for the production of tocopherols (T) and tocotrienols (T3) from palm fatty acid distillates (PFAD). The process includes converting free fatty acids and glycerides in PFAD into alkyl esters, then separating T and T3 from the alkyl esters and other impurities. The T and T3 are concentrated by ion-exchange and further concentrated by distilling the resulting product. Specific catalysts and optimum temperatures for the process are included. The resulting purified tocopherols and tocotrienols are useful substances, exhibiting antioxidant and physiological activities.

Classifications:

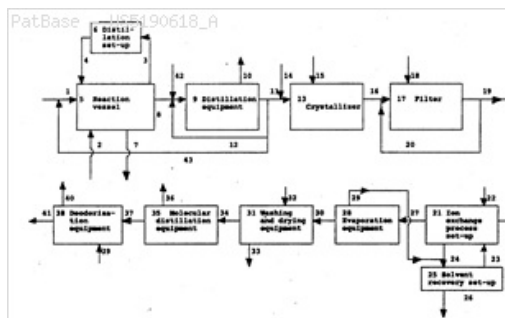
International (IPC 8-9): C07D311/72 C11C1/00 (Advanced/Invention); C07D311/00 C11C1/00 (Core/Invention)

International (IPC 1-7): B01D1/24 B01D3/12 B01D3/34 C07B63/00 C07D311/72 C11C1/00

CPC: Y10S159/16 Y10S203/06 C07D311/72

European: C07D311/72

US: 159/49 159/DIG.16 203/34 203/36 203/38 203/48 203/49

**Family:**

Publication number	Publication date	Application number	Application date
AT159015 E	19971015	AT19890302597T	19890316
AU198931360 A1	19890921	AU19890031360	19890316
AU618791 B2	19920109	AU19890031360	19890316
DE68928369 D1	19971113	DE19896028369	19890316
DE68928369 T2	19980205	DE19896028369T	19890316
EP0333472 A2	19890920	EP19890302597	19890316
EP0333472 A3	19891220	EP19890302597	19890316
EP0333472 B1	19971008	EP19890302597	19890316
JP2009875 A2	19900112	JP19890064847	19890316
US5190618 A	19930302	US19890332238	19890331

Priority:

AU1988PI07273 19880316 AU1988PI07565 19880331 AU19890031360 19890316
 US19890332238 19890331

Probable Assignee: MALAYSIAN PALM OIL BOARD

Assignee(s): (std): BIOINDUSTRY DEV CENTRE BIDEC ; PALM OIL RESEARCH AND DEV BOARD ; PALM OIL RES AND DEV BOARD ; PALM OIL RESEARCH AND DEVELOPMENT BOARD ; BIDECE BIOIND DEV CENTRE

Assignee(s): BIO IND KYOKAI ; BIOIND DEV CENTRE BIDECE ; PALM OIL RESEARCH AND DEVELOPMENT BOARD KAJANG SEL ; BIOINDUSTRY DEVELOPMENT CENTRE BIDECE TOKIO TOKYO ; BIOINDUSTRY DEVELOPMENT CENTRE BIDECE ; PALM OIL RESEARCH AND DEVELOPMENT BOARD KAJANG SELANGOR MY ; BIOINDUSTRY DEVELOPMENT CENTRE BIDECE A OF JAPAN CORP ; BIOINDUSTRY DEVELOPMENT CENTRE A CORP ; PALM OIL RESEARCH AND DEVELOPMENT BOARD SELANGER M ; MALAYSIAN PALM OIL BOARD 6 PERSIARAN INST ; MALAYSIAN PALM OIL BOARD ; BIOINDUSTRY DEVELOPMENT CENTRE ; BIOINDUSTRY DEVELOPMENT CENTRE (BIDECE) A OF JAPAN ; BIOINDUSTRY DEVELOPMENT CENTRE (BIDECE) A OF JAPAN CORP ; BIOINDUSTRY DEVELOPMENT CENTRE (BIDECE) TOKIO TOKYO JP

Inventor(s): (std): TOP ABDUL GAPOR MD ; TSUCHIYA NOZUBU MINISTRY OF IN ; WATANABE HISASHI MINISTRY OF I ; KAWADA TSUKASA MINISTRY OF INT ; TSUKASA KAWADA ; NOZUBU TSUCHIYA ; LEONG WAN LEONG ; WATANABE HISASHI ; TSUCHIYA NOZUBU ; TSUCHIYA NOZOMU ; TSUCHIYA NOZOMI ; TOP ABDUL G MD ; TOP ABD GAPOR B MOHD ; REONGU WAN REONGU ; ONG AUGUSTINE S H ; LEONG LEONG WAN ; LEONG LEONG W ; KAWADA TSUKASA ; ABD GAPOR B MOHD TOP ; HISASHI WATANABE ; AUGUSTINE SH ONG

Inventor(s): ABUDARU GAPOORU MOHAMATSUDO TOTSUPU ; KAWADA TSUKASA MINISTRY OF INTERNATIONAL TRADE C O CHIYODA KU TOKYO 100 JP ; WATANABE HISASHI MINISTRY OF INT TRADE ; TSUCHIYA NOZUBU MINISTRY OF INT TRADE ; KAWADA TSUKASA MINISTRY OF INT TRADE ; AUGUSTINE S H ONG ; KAWADA TSUKASA MINISTRY OF INTERNATIONAL TRADE ; TSUCHIYA NOZUBU MINISTRY OF INTERNATIONAL TRADE ; OOGASUTEIN ESU EICHI ONGU ; WATANABE HISASHI MINISTRY OF INTERNATIONAL TRADE ; TSUCHIYA NOZUBU MINISTRY OF INTERNATIONAL TRADE CH ; TOP ABDUL GAPOR MD 56100 KUALA LUMPUR MY ; ONG AUGUSTINE SH ; ONG AUGUSTINE S H KUALA LUMPUR MY ; LEONG LEONG WAN 40000 SHAH ALAM MY ; KAWADA TSUKASA MINISTRY OF INTERNATIONAL TRADE C O ; TSUCHIYA NOZUBU MINISTRY OF INTERNATIONAL TRADE CHYODA KU TOKYO 100 JP ; WATANABE HISASHI MINISTRY OF INTERNATIONAL TRADE C O CHIYODA KU TOKYO 100 JP ; WATANABE HISASHI MINISTRY OF INTERNATIONAL TRADE C

Agent(s): DAVIES COLLISON CAVE; DAVIES COLLISON CAVE PTY LTD

Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

28) Family number: 53853505 (US2014335261A)

© PatBase

Title: DE-ACIDIFICATION OF FATS AND OILS

Abstract: The present invention relates to a method for treating vegetable oils and/or animal fats comprising a vacuum steam stripping operation, condensing the neutral oils from vapour phase at an elevated temperature, retaining and sending back to the stripping column, allowing steam, volatile fatty acids, micronutrients together with other volatiles to pass to a cold condensation zone, and condensing the volatile fatty acids, micronutrients together with other volatiles in the cold condensation zone, producing a condensate and a stream of steam, non-condensable gases along with traces of fatty acids and other lighter hydrocarbons vapours. The invention may include a distillation step, either between the high and low temperature condensation zones or following the cold condensation zone.

Classifications:

International (IPC 8-9): A23D9/04 C11B C11B11/00 C11B3/00

C11B3/02 C11B3/10 C11B3/12 C11B3/14 C11C1/08

C11C1/10 (Advanced/Invention);

C11B3/14 (Core/Invention)

CPC: A23D9/04 C11B3/001 C11B3/006 C11B3/02 C11B3/10

C11B3/14 C11C1/08 C11C1/10

US: 426/601

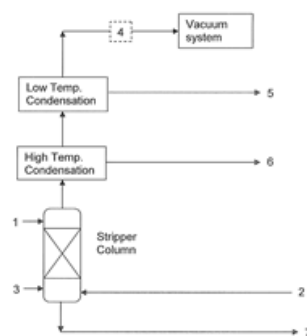


Figure 1

Family:

Publication number	Publication date	Application number	Application date
AR089181 AA	20140806	AR2012P104397	20121122
AU2012342756 AA	20130530	AU20120342756	20121101
AU2012342756 BB	20150122	AU20120342756	20121101
BR112014012168 A2	20170530	BR20141112168	20121101
CA2855886 AA	20140514	CA20122855886	20121101
CA2855886 C	20160712	CA20122855886	20121101
CN104039943 A	20140910	CN201280057941	20121101
CN104039943 B	20160706	CN201280057941	20121101
CO6990703 A2	20140710	CO20140129085	20140613
DE602011039653 D1	20170831	DE201160039653T	20111123
EP2597142 A1	20130529	EP20110190313	20111123
EP2597142 B1	20170719	EP20110190313	20111123
ES2638468 T3	20171020	ES20110190313T	20111123
IN00939KN2014 A	20140620	IN2014KN00939	20140430
IN299746 B	20180810	IN2014KN00939	20140430
JP2015504469 T2	20150212	JP20140542753T	20121101
JP5893750 B2	20160323	JP20140542753T	20121101
MX2014005943 A1	20140827	MX20140005943	20121101
RU2564246 C1	20150927	RU20140125084	20121101
TH149310 A	20160426	TH20141002786	20121101
TH66439 B	20181119	TH20141002786	20121101
TR201715853 T4	20171221	TR20170015853T	20111123
US2014335261 AA	20141113	US20120360240	20121101
US2018132500 AA	20180517	US20180866071	20180109
WO13075922 A1	20130530	WO2012EP71666	20121101
ZA201403165 A	20151125	ZA20140003165	20121101

Priority:

EP20110190313 20111123 WO2012EP71666 20121101 US20140360240 20140522
 US20180866071 20180109

Probable Assignee: ALFA LAVAL CORPORATE AB**Assignee(s):** (std): ALFA LAVAL CORP AB ; ALFA LAVAL CORP AB A SWEDISH CO**Assignee(s):** ALFA LAVAL CORPORATE AB ; ALFA LAVAL CORPORATE AB A SWEDISH CO ; MARQUES DE LIMA DANILO ; ALFA LAVAL CORPORATE ABBX 73S-221 00LUNDSE ; SARUP BENT ; AL FA LAVAL KORPOREJT AB**Inventor(s):** (std): DANILO MARQUES DE LIMA ; LIMA DANILO MARQUES DE ; MARKES DI LIMA DANILU ; BENT SARUP ; MARQUES DE LIMA DANILO ; SARUP BENT**Inventor(s):** SARUP BENTDK ; MARQUES DE LIMA DANILOBR ; DANILO ; MARQUES DE LIMA**Agent(s):** WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP; JUAN PABLO CADENA SARMIENTO; ALFA LAVAL ATTORNEYS; VALLEJO JUAN PEDRO; TOLGA CAYLAK**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**29) Family number: 24157506** (US4874629A)

© PatBase

Title: Purification of fish oil**Abstract:** A process of treating oils containing Omega-3 fatty acids, such as fish oils like Menhaden oil, sardine oil, salmon oil and other oils, to produce odorless and flavorless oils which contain only insignificant amounts of undesirable minor constituents, such as thermal and oxidative polymers of unsaturated glycerides, trans-isomers, positional isomers, conjugated dienes and trienes, cholesterol, pesticides, PCBs and heavy metals, and which have reasonably good flavor and

oxidative stabilities.

Classifications:

International (IPC 8-9): B01J20/10 C11B3/10 C11B3/14

C11B5/00 (Advanced/Invention);

B01J20/10 (Advanced/Non-invention);

B01J20/10 C11B3/00 C11B5/00 (Core/Invention)

International (IPC 1-7): A23D5/00 B01J20/10 C11B3/10 C11B3/12 C11B3/14 C11B5/0 C11B5/00

CPC: C11B3/10 C11B3/14 C11B5/00

European: C11B3/10 C11B3/14 C11B5/00

US: 260/428 426/417 426/487 426/492 426/601 554/191 554/2 554/205

PatBase - US4874629_A

U.S. Patent Oct. 17, 1989 Sheet 1 of 2 4,874,629

FIG. 1

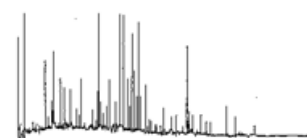
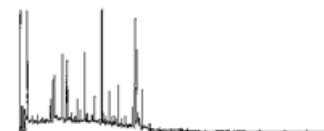


FIG. 2



Family:

Publication number	Publication date	Application number	Application date
AT141637 E	19960915	AT19890107637T	19890427
AU198933882 A1	19891102	AU19890033882	19890501
AU625415 B2	19920709	AU19890033882	19890501
CA1335110 A1	19950404	CA19890598300	19890501
DE68926977 D1	19960926	DE19896026977	19890427
DE68926977 T2	19970116	DE19896026977T	19890427
EP0340635 A2	19891108	EP19890107637	19890427
EP0340635 A3	19910313	EP19890107637	19890427
EP0340635 B1	19960821	EP19890107637	19890427
ES2091754 T3	19961116	ES19890107637T	19890427
GR3021643 T3	19970228	GR19960403014T	19961114
JP2016195 A2	19900119	JP19890113530	19890502
SG43233 A1	19971017	SG19960005964	19890427
US4874629 A	19891017	US19880189198	19880502
US5023100 A	19910611	US19890415765	19891002

Priority:

US19880189198 19880502 CA19890598300 19890501 US19890415765 19891002

Probable Assignee: FRESENIUS SE AND CO KGAA

Assignee(s): (std): BAO YONGDE ; CHANG STEPHEN S ; KABI VITRUM A B ; KABI PHARMACIA AKTIEBOLAG ; KABI VITRUM AB ; KABI PHARMACIA AB ; KABIVITRUM AB ; PHARMACIA AB REG NUMBER 556131 ; PELURA TIMOTHY J ; PHARMACIA AB

Assignee(s): KABIVITRUM A CORP AB ; KABI PHARMACIA A AB CORP ; PHARMACIA AB STOCKHOLM SE ; KABIVITRUM AB A CORP OF SWEDEN ; PHARMACIA AND UPJOHN AKTIEBOLAG ; PHARMACIA AB REGNUMBER 556131 9608 ; PHARMACIA REG NUMBER 556131 AB ; KABIVITRUM NUTRITION AB ; KABIVITRUM NUTRITION A CORP AB ; PHARMACIA AKTIEBOLA ; PHARMACIA AKTIEBOLAG ; PHARMACIA AB REG NUMBER 556131 9608 ; FRESENIUS SE AND CO KGAA ; FRESENIUS KABI AB ; FRESENIUS KABI RAPSGATAN AB

Inventor(s): (std): BAO YONGDE ; CHANG STEPHEN S ; PELURA TIMOTHY J ; STEPHEN S CHANG ; SUTEIBUN ESU CHIYAN ; TEIMOSHII JIEI PERUURA ; TIMOTHY J PELURA ; YONGDE BAO ; YONGUDO BAO

Inventor(s): PELURA TIMOTHY J ALAMEDA CALIFORNIA 94501 US ; CHANG STEPHEN S EAST BRUNSWICK NEW JERSEY 08816 US ; BAO YONGDE EAST BRUNSWICK NEW JERSEY 08901 US

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; MARKS AND CLERK

Designated states: AT BE CH DE ES FR GB GR IT LI LU NL SE

30) Family number: 40475513 (US2009111723A)

© PatBase

Title: MULTIFUNCTIONAL HYDROCARBON OIL COMPOSITION

Abstract: A multifunctional, high-performance hydrocarbon composition is demanded. Concretely, a metalworking oil composition having high workability even under a severer lubricating condition while resisting to high productivity, and further capable of suppressing deterioration of working environments or degradation of quality of a product without rise of lubricant cost, a metalworking oil composition for minimal quantitative lubrication system, which is excellent in characteristics as a water-insoluble lubricant for nonferrous metalworking and also in characteristics as a lubricant for cutting/grinding by minimal quantitative lubrication method, and can attain improvement in working efficiency and a further extended tool life, an electric discharge machining oil improved in working environments such as odor or skin roughness and further improved in processing rate, particularly processing rate in high-level finish, a rust preventing oil composition improved in resin

compatibility, and a detergent excellent in adaptability with organic material are demanded. Therefore, metalworking oil which contains, as hydrocarbon base oil, hydrocarbon base oil having a density at 15 degrees centigrade of 0.7 to 0.8 grams per cubic centimetre, and including a n-paraffin content of 10 to 90 percent by mass, an aromatic content of 0 to 3 percent by volume, and a naphthene content of 0 to 20 percent by volume, a metalworking oil including the above-mentioned base oil and ester oil, and electric discharge machining oil, rust preventing oil, and a detergent composition including the above-mentioned base oil are provided.

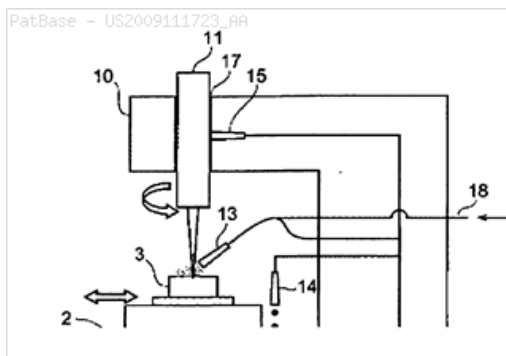
Classifications:

International (IPC 8-9): B23H1/08 B23H7/34 C07C9/00 C10G71/00 C10M101/02 C10M101/04 C10M105/02 C10M105/04 C10M105/32 C10M105/34 C10M105/38 C10M107/02 C10M169/04 C10M171/00 C10N20/00 C10N30/00 C10N30/06 C10N30/12 C10N40/20 C11D7/24 C11D7/50 C23F11/00 C23G5/024 (Advanced/Invention); C10M101/02 C10M101/04 C10M105/04 C10M105/32 C10M129/06 C10M129/40 C10M129/70 C10N20/00 C10N30/00 C10N30/06 C10N30/12 C10N40/20 C10N40/22 C10N40/24 (Advanced/Non-invention); B23H1/00 B23H7/00 C10M101/00 C10M105/00 C10M169/00 C10M171/00 C11D7/22 C11D7/50 C23F11/00 C23G5/00 (Core/Invention)

CPC: C10M2215/04 C11D7/24 B23H1/08 C10M101/02 C10M105/04 C10M107/02 C10M171/00 C10M2205/173 C10M2207/026 C10M2207/126 C10M2207/2805 C10M2207/283 C10M2207/401 C10M2215/042 C10M2215/044 C10M2219/044 C10N2220/02 C10N2220/022 C10N2220/025 C10N2230/06 C10N2230/12 C10N2230/36 C10N2230/74 C10N2240/40 C23G5/024

European: B23H1/08 C10M101/02 C10M105/04 C10M107/02 C10M171/00 C11D7/24 C23G5/024 M10M205/17B M10M207/026 M10M207/126 M10M207/283 M10M207/28B M10M207/40B M10M215/042 M10M215/044 M10M219/044 M10N220/02 M10N220/022 M10N220/025 M10N230/06 M10N230/12 M10N230/36 M10N230/74 M10N240/40

US: 208/18 208/19 508/463 508/463P 585/16 585/16S



Family:

Publication number	Publication date	Application number	Application date
CN101415807 A	20090422	CN200780011677	20070330
CN101415807 B	20150805	CN200780011677	20070330
EP2006365 A2	20081224	EP20070741138	20070330
EP2006365 A4	20110420	EP20070741138	20070330
EP2006365 A9	20090729	EP20070741138	20070330
EP2006365 B1	20180221	EP20070741138	20070330
JP2007268697 A2	20071018	JP20060100765	20060331
JP2007270081 A2	20071018	JP20060100763	20060331
JP2007270082 A2	20071018	JP20060100767	20060331
JP2007270084 A2	20071018	JP20060100773	20060331
JP2007270323 A2	20071018	JP20060100769	20060331
JP5102965 B2	20121219	JP20060100763	20060331
JP5102966 B2	20121219	JP20060100767	20060331
JP5150060 B2	20130220	JP20060100765	20060331
JP5265087 B2	20130814	JP20060100769	20060331
US2009111723 AA	20090430	US20080286292	20080929
US8933003 BB	20150113	US20080286292	20080929
WO07114505 A1	20071011	WO2007JP57702	20070330

Priority:

JP20060100763 20060331 JP20060100765 20060331 JP20060100767 20060331
 JP20060100769 20060331 JP20060100773 20060331 WO2007JP57702 20070330
 WO2007JP57702 20070330

Probable Assignee: NIPPON OIL CORP

Assignee(s): (std): HATA MASAHIRO ; IBI MASANORI ; JX NIPPON OIL AND ENERGY CORP ; KAMETSUKA HIROSHI ; MOTOYAMA TADAAKI ; NIPPON OIL CORP ; SUDA SATOSHI ; SHIBATA JUNICHI

Inventor(s): (std): HATA MASAHIRO ; IBI MASANORI ; KAMETSUKA HIROSHI ; MOTOYAMA TADAAKI ; SHIBATA JUNICHI ; SUDA SATOSHI ; TADAAKI MOTOYAMA ; SATOSHI SUDA ; MASANORI IBI ; MASAHIRO HATA ; JUNICHI SHIBATA ; IHI MASANORI ; HIROSHI KAMETSUKA

Agent(s): LEITNER WALDEMAR; WEINGARTEN SCHURGIN GAGNEBIN AND LEOVICI LLP; PRETI FLAHERTY BELIVEAU AND PACHIOS LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

31) Family number: 44517530 (US2010058649A)

© PatBase

Title: OIL COMPOSITION AND METHOD OF RECOVERING THE SAME

Abstract: The present invention generally relates to oil compositions and methods of producing such oil compositions. More particularly, the present invention relates to an oil composition recovered from a fermentation product as well as methods of recovering such oil compositions for use in various processes such as bio-diesel production as well as in various edible applications.

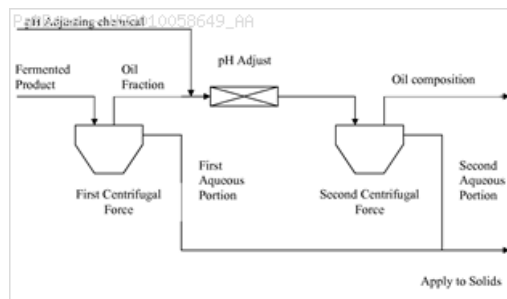
Classifications:

International (IPC 8-9): A23C15/14 A23D7/00 A23D9/00 A23D9/007 A23D9/02 A23K1/06 A23K10/38 A23L1/10 A23L7/10 C07C53/00 C07C57/12 C10L1/02 C10L1/18 C11B13/00 C11B5/00 C11C1/00 C11C1/04 C11C1/08 C11C3/00 C12F3/10 C12P7/64 (Advanced/Invention); C10L1/10 C11B13/00 C11C3/00 (Core/Invention)

CPC: C07C53/00 A23D9/00 A23D9/007 A23D9/02 C11B5/0007 C11B5/0092 C11B13/00 C11C3/00 C10L1/026 C11C1/005 C11C1/045 C11C1/08 Y02E50/13 Y02W30/74 C12F3/10 C07C57/12 A23K10/38 C12P7/64 C10L2200/0476 C10L2290/26 C12P7/6409

European: A23D9/00 A23D9/007 A23D9/02 C10L1/02D C11B13/00

C11B5/00B C11B5/00S C11C1/00B C11C1/04B C11C1/08
C11C3/00 Y02E50/13
US: 1/1 426/417 426/417S 426/541 426/541P 426/601 426/601S
426/624 426/627 426/627S 435/134 44/308 44/308P 554/1 554/2
554/223 554/224 554/3



Family:

Publication number	Publication date	Application number	Application date
CN103153079 A	20130612	CN201180045371	20110907
DE602011029057 D1	20160922	DE201160029057T	20110907
EP2613642 A1	20130717	EP20110758049	20110907
EP2613642 B1	20160810	EP20110758049	20110907
HU030986 T2	20170628	HU20110758049T	20110907
MX2013002603 A1	20130517	MX20130002603	20110907
MX343362 B	20161103	MX20130002603	20110907
US2010058649 AA	20100311	US20080208127	20080910
US2011086149 AA	20110414	US20100877987	20100908
US2013109873 AA	20130502	US20120656490	20121019
US2014186907 AA	20140703	US20130139671	20131223
US2015291923 AA	20151015	US20150747948	20150623
US2017283838 AA	20171005	US20170631420	20170623
US8702819 BB	20140422	US20080208127	20080910
US9061987 BB	20150623	US20100877987	20100908
US9695449 BB	20170704	US20130139671	20131223
WO12033843 A1	20120315	WO2011US50705	20110907

Priority:

US20080208127 20080910	US20090241874P 20090912	US20100877987 20100908
EP20110758049 20110907	WO2011US50705 20110907	US20120656490 20121019
US20130139671 20131223	US20150747948 20150623	US20170631420 20170623

Probable Assignee: POET RESEARCH INC

Assignee(s): (std): BOOTSMA JASON ; POET RES ; POET RES INC ; POET LLC

Assignee(s): POET RESEARCH INC SIOUX FALLS ; POET INVESTMENTS INC F K A BROIN ENTERPRISES INC ; POET LLC F K A BROIN COMPANIES LLC ; POET PLANT MANAGEMENT LLC ; POET RESEARCH INC F K A BROIN AND ASSOCIATES INC ; POET RESEARCH INC ; BOKF NA D B A BANK OF OKLAHOMA ; BOKF NA DBA BANK OF OKLAHOMA ; JPMORGAN CHASE BANK NA ; JPMORGAN CHASE BANK NA ADMINISTRATIVE AGENT AS ; POET RESEARCH

Inventor(s): (std): BOOTSMA JASON ; JASON BOOTSMA

Agent(s): ZACCO DENMARK A S ; WOMBLE CARLYLE SANDRIDGE AND RICE PLLC ; FOLEY AND LARDNER LLP ; SWISS GERALD F ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

32) Family number: 30128540 (US2003050492A)

© PatBase

Title: VEGETABLE OIL REFINING

Abstract: The present invention relates to improved methods for refining vegetable oils. Vegetable oil is combined with organic acid and subjected to high shear to finely disperse the acid solution in the oil. The resulting acid-and-oil mixture is mixed at low shear for a time sufficient to sequester contaminants into a hydrated impurities phase, producing a purified vegetable oil phase.

Classifications:

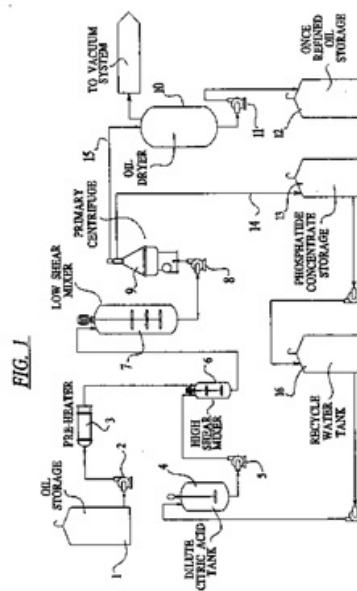
International (IPC 8-9): A23D9/00 A23D9/02 A23D9/04 A23J7/00 C07F9/10 C11B3/00 C11B3/04 C11B3/10 C11B3/12 C11B3/14 C11C1/10 (Advanced/Invention); A23D9/00 A23J7/00 C07F9/00 C11B3/00 (Core/Invention)

International (IPC 1-7): A23D9/00 A23D9/02 A23D9/04 A23J7/00 A23J7/02 C07C51/43 C07F9/02 C07F9/10 C11B1/10 C11B13/00 C11B3/00 C11B3/04 C11B3/10 C11B3/12 C11B3/14 C11C1/10

CPC: A23D9/04 A23J7/00 C07F9/103 C11B3/00 C11B3/001 C11B3/006 C11B3/04 C11B3/10 C11B3/12 C11B3/14 A23D9/02 C11C1/10 A23D9/00

European: A23D9/00 A23D9/02 A23D9/04 A23J7/00 C07F9/10K C11B3/00 C11B3/00B C11B3/00E C11B3/04 C11B3/10 C11B3/12 C11B3/14 C11C1/10

US: 554/175 554/179 554/190 554/191 554/198 554/204 554/204P 554/205 554/212 554/83 584/205



Family:

Publication number	Publication date	Application number	Application date
AR015093 AA	20010411	AR1999P102221	19990511
AR020564 AB	20020515	AR2000P101788	20000417
AR023522 AB	20020904	AR2000P101787	20000417
AR032102 AA	20031022	AR2002P100146	20020116
AR032249 AA	20031029	AR2002P100159	20020117
AR033029 AA	20031203	AR2002P100874	20020311
AR034676 AB	20040303	AR2002P102477	20020701
AT305956 E	20051015	AT19990130214T	19990709
AT317890 E	20060315	AT19990118166T	19990709
AT317891 E	20060315	AT19990118165T	19990709
AU199949828 A1	20000613	AU19990049828	19990709
AU199949828 A5	20000613	AU19990049828	19990709
AU2002225930 AA	20020819	AU20020225930	20011204
AU2002228790 AA	20020819	AU20020228790	20011204
AU2002240196 AA	20021003	AU20020240196	20020201
BRPI9915504 A	20010807	BR1999PI15504	19990709
CA2351338 AA	20010522	CA19992351338	19990709
CA2351338 C	20040316	CA19992351338	19990709
CA2434499 AA	20000602	CA19992434499	19990709
CA2434499 C	20050322	CA19992434499	19990709
CA2434502 AA	20000602	CA19992434502	19990709
CA2434502 C	20091006	CA19992434502	19990709
DE69904645 D1	20030130	DE19996004645	19990709
DE69904645 D1	20030130	DE19996004645T	19990709
DE69904645 T2	20031023	DE19996004645T	19990709
DE69927617 D1	20060216	DE19996027617	19990709
DE69929836 D1	20060420	DE19996029836T	19990709
DE69929836 D1	20060420	DE19996029836	19990709
DE69929836 T2	20060921	DE19996029836T	19990709
DE69929837 D1	20060420	DE19996029837	19990709
DE69929837 D1	20060420	DE19996029837T	19990709
DE69929837 T2	20060928	DE19996029837T	19990709
DK1157615 T3	20060619	DK19990118166T	19990709
DK1158039 T3	20060619	DK19990118165T	19990709
DK1201737 T3	20060116	DK19990130214T	19990709
EP1131392 A1	20010912	EP19990933868	19990709
EP1131392 B1	20021218	EP19990933868	19990709
EP1157615 A2	20011128	EP20010118166	19990709
EP1157615 A3	20020130	EP20010118166	19990709
EP1157615 B1	20060215	EP20010118166	19990709
EP1158039 A2	20011128	EP20010118165	19990709
EP1158039 A3	20020130	EP20010118165	19990709
EP1158039 B1	20060215	EP20010118165	19990709
EP1201737 A2	20020502	EP20010130214	19990709
EP1201737 A3	20030312	EP20010130214	19990709
EP1201737 B1	20051005	EP20010130214	19990709
EP1357803 A2	20031105	EP20010995371	20011204
EP1363502 A2	20031126	EP20010989906	20011204

ES2248218 T3	20060716	ES20010118166T	19990709
ES2257363 T3	20060801	ES20010118166T	19990709
HU0104771 AB	20020429	HU20010004771	19990709
SI1131392 T1	20030630	SI19990030231T	19990709
US2003050492 AA	20030313	US20020190263	20020703
US6172247 BA	20010109	US20000514838	20000229
US6172248 BA	20010109	US19980197953	19981120
US6423857 BA	20020723	US20010808529	20010314
US6426423 BA	20020730	US20010776126	20010202
US6441209 BA	20020827	US20010776477	20010202
US6844458 BB	20050118	US20020190263	20020703
WO0031219 A1	20000602	WO1999US15630	19990709
WO02062156 A2	20020815	WO2001US46414	20011204
WO02062156 A3	20030213	WO2001US46414	20011204
WO02062157 A2	20020815	WO2001US46612	20011204
WO02062157 A3	20021003	WO2001US46612	20011204
WO02074887 A1	20020926	WO2002US02795	20020201

Priority:

US19980197953	19981120	CA19992351338	19990709	CA19992434499	19990709
CA19992434502	19990709	CA19992434502	19990709	EP19990933868	19990709
EP20010118166	19990709	WO1999US15630	19990709	US20000514838	20000229
US20000550375	20000414	US20010776126	20010202	US20010776477	20010202
US20010808529	20010314	WO2001US46414	20011204	WO2001US46612	20011204
WO2002US02795	20020201	US20020190263	20020703		

Probable Assignee: IP HOLDINGS LLC

Assignee(s): (std): BELCHER W MAURICE ; COPELAND DICK ; COPELAND RICHARD ; I P HOLDINGS ; PROCESSING INC AG ; IP HOLDINGS L L C ; IP HOLDINGS LLC ; PROC INC AG

Assignee(s): IP HOLDINGS L L C OMAHA ; IP HOLDINGS ; AG PROCESSING INC ; BELCHER MAURICE W ; BELCHER W

Inventor(s): (std): BELCHER W MAURICE ; BLECHER MAURICE W ; BLECHER W MAURICE ; COPELAND DICK ; COPELAND RICHARD ; DICK COPELAND ; RICHARD COPELAND ; W MAURICE BELCHER ; BLECHER MAURICE ; BELCHER MAURICE W ; BELCHER MAURICE

Inventor(s): BELCHER W

Agent(s): MBM AND CO; MBM INTELLECTUAL PROPERTY LAW LLP; MCDONNELL BOEHNEN HULBERT AND BERGHOF LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ NH PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZM ZW

33) Family number: 29992549 (US2002108148A)

© PatBase

Title: NUCLEIC ACID SEQUENCES TO PROTEINS INVOLVED IN ISOPRENOID SYNTHESIS

Abstract: Methods are provided for producing plants and seeds having altered isoprenoid content and compositions. The methods find particular use in increasing the isoprenoid levels in plants, and in providing desirable isoprenoid compositions in a host plant cell.

Classifications:

International (ipc 8-9): A01H5/00 A01H5/10 A01N63/02 A01N65/00 A23D9/007 A23K1/00 A23K1/16 C07K14/41 C07K14/415 C11B1/00 C11B3/00 C11B3/12 C12N1/13 C12N1/21 C12N15/05 C12N15/09 C12N15/29 C12N15/31 C12N15/52 C12N15/53 C12N15/54 C12N15/60 C12N15/61 C12N15/74 C12N15/82 C12N5/00 C12N5/10 C12N9/04 C12N9/10 C12N9/88 C12N9/90 C12P17/06 C12P5/02 (Advanced/Invention);

A01H5/00 C12N15/09 C12N15/53 C12N15/54 C12N5/10

C12N9/90 (Advanced/Non-invention);

A01H5/00 A23D9/007 A23K1/00 A23K1/16 C07K14/41 C11B1/00

C11B3/00 C12N15/60 C12N15/82 C12N9/10 C12N9/88

C12P17/02 (Core/Invention)

International (ipc 1-7): A01H1/00 A01H5/00 A01N65/00 A23K1/00 A61K31/355 C07H21/04 C11B1/00 C12N1/21 C12N15/09 C12N15/11 C12N15/31 C12N15/53 C12N15/54 C12N15/60 C12N15/74 C12N15/79 C12N15/82 C12N5/00 C12N5/04 C12N5/10 C12N5/14 C12N9/00 C12N9/02 C12N9/10 C12N9/90 C12P17/06 C12P21/02 C12P21/04

CPC: C12N9/0006 A23D9/007 C11B3/001 C11B3/12 C12N9/1085 C12N9/88 C12N15/8243 C12N15/8247 C12P17/06 A23K20/174

European: A23D9/007 A23K1/16B C11B3/00B C11B3/12 C12N15/82C4B C12N15/82C4B4 C12N9/00P2 C12N9/10E C12N9/88 C12P17/06 M12N207/00 M12N213/00

US: 435/125 435/125P 435/167 435/167P 435/189 435/189S 435/193 435/193P 435/193S 435/252.3 435/252.300S 435/320.1 435/320.100S 435/41 435/410 435/410S 435/412 435/412S 435/415 435/415S 435/419 435/419S 435/423 435/424 435/426 435/465 435/468 435/468S 435/471 435/471S 435/69.1 435/69.100S 514/458 514/458S 530/370 536/23.1 536/23.2 536/23.200S 536/23.6 536/23.7 536/232 800/278 800/278P 800/281 800/281P 800/284 800/284P 800/287 800/288 800/298 800/306 800/312 800/314 800/317.4 800/320.1 800/320.2 800/320.3 800/321

PatBase - US2002108148_AA

Patent Application Publication Aug. 8, 2002 Sheet 1 of 2 US 2002/0108148 A1

```

At:  NCTGACGPA RECAISFLOT UNDFIFLE GPFERBROQ GPFERBROQ
Al:  GYKQOQOQ PFANKQATP EAPROKOP EPTSTVROQ GYKQOQOQ
E col:  N EPTSTVROQ GYKQOQOQ
At:  AINPQFVV ALAAGNVL GYKQOQOQ ALAAGNVL INHLEKAL
* col:  AINPQFVV ALAAGNVL GYKQOQOQ ALAAGNVL INHLEKAL
Al:  LUYEELIQ GYKQOQOQ PFANKQATP GYKQOQOQ ALAAGNVL
* col:  LUYEELIQ GYKQOQOQ PFANKQATP GYKQOQOQ ALAAGNVL
At:  LAKREKALQ GYKQOQOQ INHLEKALQ RECAISFLOT
* col:  LAKREKALQ GYKQOQOQ INHLEKALQ RECAISFLOT
At:  GYKQOQOQ LUYEELIQ GYKQOQOQ INHLEKALQ INHLEKALQ
* col:  GYKQOQOQ LUYEELIQ GYKQOQOQ INHLEKALQ INHLEKALQ
At:  SATFQKELQ YINAVLPA GYKQOQOQ INHLEKALQ INHLEKALQ
* col:  SATFQKELQ YINAVLPA GYKQOQOQ INHLEKALQ INHLEKALQ
At:  GYKQOQOQ YINAVLPA GYKQOQOQ INHLEKALQ INHLEKALQ
* col:  GYKQOQOQ YINAVLPA GYKQOQOQ INHLEKALQ INHLEKALQ
At:  KATACAGAG GYKQOQOQ INHLEKALQ INHLEKALQ INHLEKALQ
* col:  KATACAGAG GYKQOQOQ INHLEKALQ INHLEKALQ INHLEKALQ
At:  INHLEKALQ INHLEKALQ INHLEKALQ INHLEKALQ INHLEKALQ
* col:  INHLEKALQ INHLEKALQ INHLEKALQ INHLEKALQ INHLEKALQ

```

Figure 1

Family:

Publication number	Publication date	Application number	Application date
AT316578 E	20060215	AT20000922287T	20000414
AT358723 E	20070415	AT20000923461T	20000414
AT365217 E	20070715	AT20010927055T	20010413
AU200042493 A1	20001102	AU20000042493	20000414
AU200042493 A5	20001102	AU20000042493D	20000414
AU200043579 A1	20001102	AU20000043579	20000414
AU200043579 A5	20001102	AU20000043579D	20000414
AU2001253543 AA	20011030	AU20010253543	20010413
AU2001253543 BB	20050922	AU20010253543	20010413
AU200153543 A1	20011030	AU20010053543	20010413
AU200153543 A5	20011030	AU20010053543	20010413
AU2005200270 AA	20050217	AU20050200270	20050121
AU2005200270 BB	20070705	AU20050200270	20050121
AU776316 B2	20040902	AU20000042493	20000414
AU777584 B2	20041021	AU20000043579	20000414
BRPI0009763 A	20030408	BR2000PI09763	20000414
BRPI0009763 B1	20160607	BR2000PI09763	20000414
BRPI0010616 A	20020507	BR2000PI10616	20000414
CA2369844 AA	20011003	CA20002369844	20000414
CA2369844 C	20130226	CA20002369844	20000414
CA2370616 AA	20011012	CA20002370616	20000414
CA2370616 C	20130409	CA20002370616	20000414
CA2405560 AA	20021008	CA20012405560	20010413
CA2405560 C	20140617	CA20012405560	20010413
CN100387721 C	20080514	CN20008008457	20000414
CN1318593 C	20070530	CN20008008784	20000414
CN1353760 A	20020612	CN20008008457	20000414
CN1408024 A	20030402	CN20008008784	20000414
DE60025713 D1	20060413	DE20006025713	20000414
DE60025713 D1	20060413	DE20006025713T	20000414
DE60025713 T2	20061102	DE20006025713T	20000414
DE60034224 D1	20070516	DE20006034224T	20000414
DE60034224 D1	20070516	DE20006034224	20000414
DE60034224 T2	20071220	DE20006034224T	20000414
DE60129011 D1	20070802	DE20016029011T	20010413
DE60129011 D1	20070802	DE20016029011	20010413
DE60129011 T2	20080228	DE20016029011T	20010413
DK1190068 T3	20060522	DK20000922287T	20000414
EP1171610 A1	20020116	EP20000923461	20000414
EP1171610 B1	20070404	EP20000923461	20000414
EP1190068 A2	20020327	EP20000922287	20000414
EP1190068 B1	20060125	EP20000922287	20000414
EP1274850 A2	20030115	EP20010927055	20010413
EP1274850 B1	20070620	EP20010927055	20010413
EP1845161 A1	20071017	EP20070010187	20010413
ES2253220 T3	20060601	ES20000922287T	20000414
IN245183 B	20110114	IN2001DN00946	20011015
JP2002541851 T2	20021210	JP20000612468T	20000414
JP2003527077 T2	20030916	JP20000612470T	20000414
MXPA01010486 A1	20020327	MX2001PA10486	20000414
MXPA01010488 A1	20030721	MX2001PA10488	20000414
PT1190068 T	20060630	PT20000922287T	20000414
US2002108148 AA	20020808	US20010987025	20011113
US2003170833 AA	20030911	US20030349508	20030123
US2004018602 AA	20040129	US20030437169	20030513
US2005120406 AA	20050602	US20040966829	20041015
US2005262590 AA	20051124	US20050092140	20050329
US2010216204 AA	20100826	US20080147409	20080626
US6541259 BA	20030401	US20000549848	20000414
US6872815 BA	20050329	US20000688069	20001014
US7067647 BB	20060627	US20010987025	20011113
US7141718 BB	20061128	US20030437169	20030513
US7265207 BB	20070904	US20030349508	20030123
US7335815 BB	20080226	US20040966829	20041015
US7420101 BB	20080902	US20050092140	20050329
US8362324 BB	20130129	US20080147409	20080626
WO0063389 A1	20001026	WO2000US10367	20000414
WO0063391 A2	20001026	WO2000US10368	20000414
WO0063391 A3	20020117	WO2000US10368	20000414
WO0179472 A2	20011025	WO2001US12334	20010413
WO0179472 A3	20020606	WO2001US12334	20010413

Priority:

US19990129899P	19990415	US19990146461P	19990730	AU20000043579	20000414
AU20000043579	20000414	US20000549848	20000414	WO2000US10367	20000414
US20000549787	20000414	WO2000US10368	20000414	US20000688069	20001014
EP20010927055	20010413	WO2001US12334	20010413	US20010987025	20011113
US20030349508	20030123	US20030437169	20030513	US20040966829	20041015
US20050092140	20050329	US20080147409	20080626		

Probable Assignee: MONSANTO CO

Assignee(s): (std): CAMPOS NARCISO ; CHEN RIDONG ; RANGWALA SHAUKAT H ; SAVIDGE BETH ; LASSNER MICHAEL W ; POST BEITTENMILLER DUSTY ; MONSANTO TECHNOLOGY LLP ; KISHORE GANESH M ; MITSKY

TIMOTHY ; POST BEITTENMILLER MARTHA ANN ; MITSKY TIMOTHY A ; SLATER STEVEN C ; KARBERG KATHERINE ; MONSANTO TECHNOLOGY LLC ; MONSANTO CO ; MONSANTO PRODUCTS LLC AG ; VALENTIN HENRY E ; WONG YUN HUA H ; SUBRAMANIAM S SAI ; SUBRAMANIAM SAI S ; WONG YUN HUA HUANG ; WEISS JAMES D ; BHAT B GANESH ; BORONAT ALBERT ; CALGENE LLC ; CALGENE LLC DAVIS

Assignee(s): CAMPOS NARCISCO ; BHAT B ; MON NTO TECHNOLOGY LLC SA

Inventor(s): (std): GANESH M KISHORE ; GM KISHORE ; JAMES D WEISS ; JD WEISS ; LASSNER M W ; MICHAEL W LASSNER ; MITSKY TIMOTHY ; MITSKY TIMOTHY A ; MW LASSNER ; NARCISO CAMPOS ; POST BEITTENMILLER MARTHA ANN ; SAVIDGE B ; SLATER STEVEN ; SUBRAMANIAM S SAI ; SUBRAMANIAM SAI ; TIMOTHY MITSKY ; VALENTIN HENRY ; WEISS B SAVIDGE M W LASSNER J ; WEISS J D ; WEISS JAMES ; WONG YUN HUA ; A BORONAT ; ALBERT BORONAT ; B SAVIDGE ; BETH SAVIDGE ; BG BHAT ; CAMPOS NARCISCO ; DUSTY POST BEITTENMILLER ; WONG YUN HUA HUANG ; WONG YUN HUA H ; WEISS JAMES D ; WEISS D ; VALENTIN HENRY E ; SUBRAMANIAM SAI S ; SLATER STEVEN C ; SAVIDGE BETH ; LASSNER W ; LASSNER MICHAEL W ; KISHORE GANESH M ; POST BEITTENMILLER DUSTY ; POST BEITTENMILLER DUSTY ; KISHORE G M ; KARBERG KATHERINE ; CHEN RIDONG ; CAMPOS NARCISO ; BORONAT ALBERT ; BORONAT A ; BHAT B G ; RANGWALA SHAUKAT H ; BHAT B GANESH

Inventor(s): B GANESH BHAT ; J D WEISS ; HENRY E VALENTIN ; DUSTY POST BEITTENMILLER ; KATHERINE KARBERG ; M W LASSNER ; KISHORE GANESH ; SAI S SUBRAMANIAM ; RIDONG CHEN ; SHAUKAT H RANGWALA ; STEVEN C SLATER ; G M KISHORE ; BHAT B ; B SAVIDGE M W LASSNER J D WEISS ; B G BHAT ; B SAVIDGE MW LASSNER JD WEISS ; YUN HUA HUANG WONG

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; MCFADDEN FINCHAM INC; MCFADDEN FINCHAM; OSLER HOSKIN AND HARCOURT LLP; FULBRIGHT AND JAWORSKI LLP; SONNENSCHN NATH AND ROSENTHAL LLP; SNR DENTON US LLP; CHUNPING

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MH ML MN MR MW MX NZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

34) Family number: 29479550 (US2002098274A)

© PatBase

Title: CONJUGATED LINOLEIC ACID COMPOSITIONS

Abstract: Novel compositions containing conjugated linoleic acids are efficacious as animal feed additives and human dietary supplements. Linoleic acid is converted to its conjugated forms in which the resulting composition is low in certain unusual isomers compared to conventional conjugated linoleic products. In addition, the inventions provides compositions that are prepared according to a novel method that controls oxidation of CLA into volatile organic compounds as well as containing metal oxidant chelators to control oxidation during storage.

Classifications:

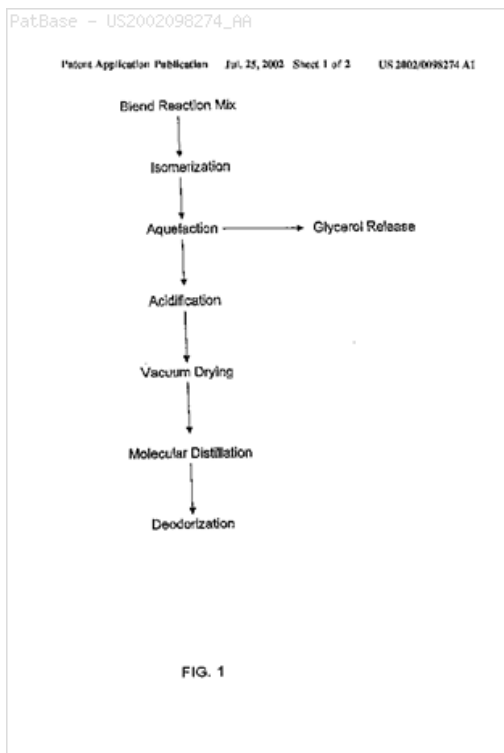
International (IPC 8-9): A23D9/00 A23D9/007 A23D9/02 A23K1/00 A23K1/16 A23L1/30 A61K31/20 A61K31/201 A61K31/202 A61K31/22 A61K31/23 A61K31/231 A61K36/00 A61K36/28 A61K37/00 A61K47/00 A61K47/10 A61K47/14 A61K47/22 A61K47/24 A61K47/48 A61P3/02 A61P35/00 B01D15/00 C07C51/353 C07C57/03 C11B3/00 C11B3/10 C11B3/12 C11B5/00 C11C1/02 C11C1/04 C11C3/00 C11C3/02 C11C3/14 (Advanced/Invention); A23D9/007 A23K1/16 A61K31/201 (Advanced/Non-invention); A23D9/00 A23D9/007 A23D9/02 A23K1/16 A23L1/30 A61K31/185 A61K31/21 A61K47/00 A61K47/48 A61P3/00 A61P35/00 B01D15/00 C07C57/00 C11B3/00 C11B5/00 C11C1/00 C11C3/00 (Core/Invention); A61K (Subclass/Invention)

International (IPC 1-7): A23D7/00 A23D9/00 A23D9/007 A23D9/02 A23K1/00 A23K1/16 A23K1/165 A23L1/30 A61K31/20 A61K31/201 A61K31/225 A61K47/00 A61P3/02 A61P35/00 B01D015/00 B01D15/00 C07C51/353 C07C69/587 C11B3/00 C11B3/10 C11B5/00 C11C1/00 C11C1/02 C11C3/00 C11C3/14 C12P7/64

CPC: A23K20/158 C11C3/14 A23D9/00 A23V2002/00 C11B5/0028 C11B5/0035 C11C3/02 A23L33/10 A23L33/115 A61K47/54 A61K47/542 A61K47/543 A23L33/12 A61K31/201

European: A23D9/00 A23K1/161 A23L1/30 A23L1/30C A23L1/30C2 A61K31/201 A61K47/48H4 A61K47/48H4C A61K47/48H4F C11B5/00F2 C11B5/00F4 C11C3/02 C11C3/14 K23V2/00

US: 420/648 424/439 424/439S 424/442 424/442P 426/601 426/601P 426/648 435/134 435/134S 514/547 514/547S 514/549 514/552 514/558 514/560 554/122 554/122P 554/126 554/126P 554/127 554/167 554/168 554/173 554/224 554/224S 584/126



Family:

Publication number	Publication date	Application number	Application date
AT350028 E	20070115	AT19990105497T	19990317
AU199931886 A1	19991011	AU19990031886	19990317
AU199954745 A1	20000306	AU19990054745	19990810
AU199954745 A5	20000306	AU19990054745	19990810
AU199963996 A1	20000417	AU19990063996	19990923
AU199963996 A5	20000417	AU19990063996	19990923
AU2001251449 AA	20011023	AU20010251449	20010406
AU2001251449 BB	20050407	AU20010251449	20010406
AU200151449 A1	20011023	AU20010051449	20010406
AU200151449 A5	20011023	AU20010051449	20010406
AU764699 B2	20030828	AU19990031886	19990317
CA2289648 AA	19991102	CA19992289648	19990317

CA2289648 C	20040601	CA19992289648	19990317
CA2404799 AA	20020930	CA20012404799	20010406
CA2404799 C	20070807	CA20012404799	20010406
DE69934627 D1	20070215	DE19996034627	19990317
DE69934627 D1	20070215	DE19996034627T	19990317
DE69934627 T2	20071025	DE19996034627T	19990317
DK0950410 T3	20070507	DK19990105497T	19990317
EP0950410 A1	19991020	EP19990105497	19990317
EP0950410 B1	20070103	EP19990105497	19990317
EP1268722 A2	20030102	EP20010924831	20010406
ES2279586 T3	20070816	ES19990105497T	19990317
IN00319KO2000 A	20050311	IN2000KO00319	20000915
JP2000516480 T2	20001212	JP19990547251T	19990317
JP2003073269 A2	20030312	JP20020188781	20020627
JP2004506746 T2	20040304	JP20010575125T	20010406
JP2010202662 A2	20100916	JP20100121020	20100526
JP2012176986 A2	20120913	JP20120135894	20120615
JP2013256502 A2	20131226	JP20130146292	20130712
JP2015083698 A2	20150430	JP20150005580	20150115
JP2015129136 A2	20150716	JP20150010902	20150123
KR100619651 B1	20060905	KR20007010266	19990317
KR20010074447 A	20010804	KR20007010266	19990317
MX228954 B	20060726	MX2000PA09106	20000915
MXPA00009106 A1	20020401	MX2000PA09106	20000915
NO20004615 A	20001107	NO20000004615	20000915
NO20004615 A0	20000915	NO20000004615	20000915
NO20024799 A	20021129	NO20020004799	20021004
NO20024799 A0	20021004	NO20020004799	20021004
NO331483 B1	20120116	NO20000004615	20000915
NO332556 B1	20121022	NO20020004799	20021004
US2002098274 AA	20020725	US20010961522	20010924
US2002169332 AA	20021114	US20020124972	20020418
US2004018225 AA	20040129	US20030623825	20030721
US2008200706 AA	20080821	US20080020820	20080128
US6015833 A	20000118	US19980042767	19980317
US6410761 BA	20020625	US19990270940	19990317
US6524527 BB	20030225	US20010961522	20010924
US6610868 BB	20030826	US20020124972	20020418
US7029691 BA	20060418	US19990271024	19990317
US7078051 BA	20060718	US19980132593	19980811
US7452548 BA	20081118	US19990438104	19991110
US7514096 BB	20090407	US20030623825	20030721
US7776353 BA	20100817	US20000544084	20000406
US8207225 BB	20120626	US20080020820	20080128
WO0009163 A1	20000224	WO1999US18094	19990810
WO0018944 A1	20000406	WO1999US22126	19990923
WO0177271 A2	20011018	WO2001US11406	20010406
WO0177271 A3	20020221	WO2001US11406	20010406
WO9947135 A1	19990923	WO1999US05806	19990317
WO9947135 C1	20010705	WO1999US05806	19990317
ZA200004855 A	20010829	ZA20000004855	20000913

Priority:

US19980042538	19980317	US19980042767	19980317	US19980132593	19980811
US19980160416	19980925	JP19990547251	19990317	JP19990547251T	19990317
JP20020188781	19990317	JP20100121020	19990317	JP20130146292	19990317
US19990270940	19990317	US19990271024	19990317	WO1999US05806	19990317
WO1999US18094	19990810	WO1999US22126	19990923	US19990438104	19991110
US20000544084	20000406	US20000544004	20000406	JP20010575125	20010406
JP20120135894	20010406	JP20010575125T	20010406	WO2001US11406	20010406
US20010961522	20010924	US20020124972	20020418	US20030623825	20030721
US20080020820	20080128	JP20150010902	20150123		

Probable Assignee: AKER ASA

Assignee(s): (std): SAEBO ASGEIR ; JEROME DARIA ; HARALDSSON GUDMUNDUR G ; NATURAL CORP ; HAROLDSSON GUDMUNDUR ; NATURAL ASA ; AKER ASA ; AKER BIOMARINE ASA ; CONLINCO INC ; SKARIE CARL

Assignee(s): HARALDSSON GUDMUNDUR ; CONLINCO ; NATURAL KJOERBOKOLLEN ; NATURAL ASA STRANDVEIEN ; NATURAL ; NATUAL ; HAROLDSSON GUDMUNDER

Inventor(s): (std): ASGEIR SAEBO ; ASTEIR SAEBO ; CARL SKARIE ; DARIA JEROME ; FIMREITE DUANE ; GUDMUNDER HARALDSSON ; GUDMUNDUR G HARALDSSON ; HARALDSSON GUDMUNDUR G ; HAROLDSSON GUDMUNDER ; HAROLDSSON GUDMUNDUR ; JEROME DARIA ; OAKLEY GODFREY ; SAEBO ASGEIR ; SKARIE CARL ; SAEBOE ASGEIR ; HARALDSSON GUDMUNDUR ; HARALDSSON GUDMUNDER

Inventor(s): SAEBO ASTEIR

Agent(s): SPRUSON AND FERGUSON; ASPEN PHARMA PTY LTD; SMART AND BIGGAR; CASIMIR JONES SC; MEDLEN AND CARROLL LLP

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EE ES FI FR GA GB GD GE GH GM GN GR GW HR HU ID IE IL IN IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ PL PT RO RU SD SE SG SI SK SL SN SZ TD TG TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

Title: PROCESS FOR SEPARATING UNSAPONIFIABLE VALUABLE PRODUCTS FROM RAW MATERIALS

Abstract: Disclosed are processes for separating valuable products, including unsaponifiable materials, from any given matrix of raw materials that is mainly composed of saponifiable components and unsaponifiable components. Preferred methods include converting sodium or potassium soaps obtained from the saponification of a starting material into metallic soaps which have a lower melting point, and when melted, have viscosity sufficiently low to enable processing such as by distillation/evaporation processes. Preferred raw materials include animal or vegetable products, as well as by-products, residues, and waste products from the processing of animal or vegetable products, such as from food processing, cellulose processing and the like. Valuable products which may be obtained by the disclosed processes include sterols, vitamins, flavonoids, and tocopherols.

Classifications:

International (IPC 8-9): C11B3/06 C11C1/02 C11C1/04 C11C1/10 (Advanced/Invention)

International (IPC 1-7): C07C39/12 C07C46/10 C07C51/58 C07C61/12 C07D311/40 C07J9/00 C07K14/775 C11B13/00 C11B3/00 C11B3/06 C11C1/02 C11C1/04 C11C1/10 C11D1/28 C11D15/00 C11D7/00

CPC: C11C1/025 C11C1/04 C11C1/10

European: C11C1/02B C11C1/04 C11C1/10

US: 530/23 530/230 530/230S 530/359 549/413 549/413P 552/296 552/296S 552/54 552/540 552/540S 554/1 554/124 554/124S 554/176 554/176S 554/195 554/1P 562/498 562/498S 562/499 562/499S 568/729 568/729S 585/809 585/809S

Family:

Publication number	Publication date	Application number	Application date
AU2002350296 AA	20030630	AU20020350296	20021216
BRPI0106522 A	20030909	BR2001PI06522	20011217
CA2469754 AA	20040608	CA20022469754	20021216
EP1458839 A1	20040922	EP20020784940	20021216
JP2005513199 T2	20050512	JP20030552903T	20021216
NO20042491 A	20040825	NO20040002491	20040615
PL370828 A1	20050530	PL20020370828	20021216
RU2004121669 A	20050820	RU20040121669	20021216
US2003120095 AA	20030626	US20020079062	20020220
US2005033027 AA	20050210	US20040940176	20040914
US2005054866 AA	20050310	US20040940896	20040914
US6846941 BB	20050125	US20020079062	20020220
WO03052034 A1	20030626	WO2002BR00185	20021216
ZA200405510 A	20050317	ZA20040005510	20040712

Priority:

BR2001PI06522 20011217 US20020079062 20020220 WO2002BR00185 20021216
US20040940176 20040914 US20040940896 20040914

Probable Assignee: RESITEC PARTICIPACOES LTDA

Assignee(s): (std): RESITEC INDUSTRIA QUIMICA LTDA ; RESITEC IND QUIMICA LTDA

Assignee(s): RESITEC INDUSTRIA QUIMICA LTD ; RESITEC PARTICIPACOES LTD ; RESITEC PARTICIPACOES LTDA ; ROHR RAUL ; ROHR RODOLFO

Inventor(s): (std): RODOLFO ROHR ; ROHR RAUL ; ROHR RODOLFO ; TRUJILLO QUIJANO JOSE ANIBAL

Agent(s): FB RICE; FB RICE PTY LTD

Designated states: AT AU BE BG CA CH CY CZ DE DK EE ES FI FR GB GR HU IE IT JP LI LU MC MX NL NO NZ PL PT RU SE SI SK TR ZA

36) Family number: 30134584 (US5981781A)

© PatBase

Title: Soybean oil having high oxidative stability

Abstract: A high oleic soybean oil having high oxidative stability is disclosed. This oil has an AOM induction time of greater than 50 hours. Oxidative stability is achieved without the need for hydrogenation or the addition of an antioxidant.

Classifications:

International (IPC 8-9): A23D9/00 A23D9/007 A23D9/02 A23D9/06 A23L1/30 A23L33/115 C10M101/04 C11B1/04 C11B3/00 C11B3/12 C11B5/00 C11B7/00 C11C1/04 C11C3/00 C11C3/10 C11C3/12

C12N15/09 C12N15/82 (Advanced/Invention);

A23D9/00 A23D9/02 A23D9/06 C11B5/00 C11C3/00

C12N15/09 (Advanced/Non-invention);

A23D9/00 A23L1/30 C10M101/00 C11B3/00 C11B7/00

C11C3/00 (Core/Invention)

International (IPC 1-7): A01B69/00 A23D7/00 A23D9/00 A23D9/007

A23D9/02 A23D9/06 A23L1/30 C07C53/00 C10M101/04 C11B1/04

C11B3/00 C11B3/12 C11B5/00 C11B7/00 C11C1/04 C11C3/00

C11C3/10 C11C3/12 C12N15/09

CPC: A23D9/00 C10M101/04 C10M2207/40 C10M2207/404

C10N2240/08 C11B3/001 C11B7/00 C11C1/04 C11C3/10

C11C3/123 C12N15/8247

European: A23D9/00 C10M101/04 C11B3/00B C11B7/00 C11C1/04

C11C3/10 C11C3/12B C12N15/82C4B4 M10M207/40 M10M207/404

M10N240/08

US: 426/601 426/607 554/223 554/224

FIG. 1

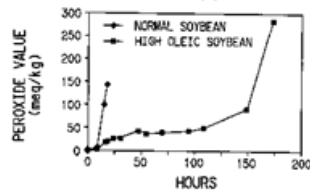
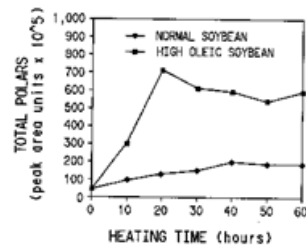


FIG. 2A



Family:

Publication number	Publication date	Application number	Application date
AR006830 AA	19990929	AR1997P101677	19970424
AU199728142 A1	19971119	AU19970028142	19970425
AU200143747 A1	20010705	AU20010043747	20010507
AU200143747 A5	20010705	AU20010043747D	20010507
AU2004202766 AA	20040715	AU20040202766	20040623
AU2004202766 BB	20070531	AU20040202766	20040623
BRPI9709158 A	19990803	BR1997PI09158	19970425
CA2249568 AA	19980916	CA19972249568	19970425
CA2249568 C	20021112	CA19972249568	19970425
CA2388889 AA	19971106	CA19972388889	19970425
CA2388889 C	20060613	CA19972388889	19970425
CN1219842 A	19990616	CN19971094043	19970425
EP0923304 A1	19990623	EP19970922491	19970425
JP11508961 T2	19990803	JP19970539092T	19970425
JP2002322488 A2	20021108	JP20020030596	20020207
JP3431634 B2	20030728	JP19970539092T	19970425
KR100304431 B1	20011122	KR19980708563	19981024
KR20000065021 A	20001106	KR19980708563	19970425
NO984696 A	19981008	NO19980004696	19981008
NO984696 A0	19981008	NO19980004696	19981008
NZ331690 A	20000623	NZ19970331690	19970425
RU2162642 C2	20010210	RU19980121211	19970425
RU98121211 A	20000920	RU19980121211	19981126
TW445134 B	20010711	TW19970116220	19971030
US5981781 A	19991109	US19980106877	19980630
WO9740698 A1	19971106	WO1997US07028	19970425
ZA9703565 A	19981026	ZA19970003565	19970424

Priority:

US19960016154P 19960426	AU19970028142 19970425	CA19972388889 19970425
JP19970539092 19970425	JP19970539092T 19970425	CA19972249568 19970425
WO1997US07028 19970425	US19980106877 19980630	AU20010043747 20010507
CA20022249568 20020717	AU20040202766 20040623	

Probable Assignee: EI DU PONT DE NEMOURS AND CO

Assignee(s): (std): E I DU PONT DE MEMORS AND CO ; KNOWLTON SUSAN ; PONT DE NEMOURS AND CO E I DU ; EI DU PONT DE NEMOURS AND CO ; EIDU PONT DE NEMOURS AND CO ; DU PONT ; DUPONT CO LTD

Assignee(s): E I DJUPON DE NEMUR EHND KOMPANI ; E I DU PONT DE NEMOURS AND CO ; E I DU PONT DE NEMOURS AND COMPANY ; E.I.DJUPON DE NEMUR EHND KOMPANI

Inventor(s): (std): KNOWLTON S ; KNOWLTON SUSAN ; NOULTON S JUZAN ; S KNOWLTON ; SUSAN KNOWLTON

Inventor(s): NOULTON S'JUZAN

Agent(s): CALLINANS ; FISHER ADAMS KELLY CALLINANS ; SPRUSON AND FERGUSON ; BENNETT JONES LLP

Designated states: AL AM AT AU AZ BA BB BE BF BG BJ BR BY CA CF CG CH CI CM CN CU CZ DE DK EE ES FI FR GA GB GE GH GN GR HU IE IL IS IT JP KE KG KP KR KZ LC LI LK LR LS LT LU LV MC MD MG MK ML MN MR MW MX NE NL NO NZ PL PT RO RU SD SE SG SI SK SN SZ TD TG TJ TM TR TT UA UG US UZ VN YU

Title: METHOD FOR PRODUCING A CONCENTRATE OF EICOSAPENTAENOIC AND DOCOSAHEXAENOIC ACID ESTERS

Abstract: The current invention describes processes for obtaining of concentrates of esters of eicosapentaenoic acid and docosahexaenoic acid for their use in massive and regular human consumption either as a pharmaceutical ingredient or as a food ingredient, which are characterized by having neutral and stable organoleptic properties, free of side effects, which are typical from marine oils derivatives, and with low content of Persistent Organic Pollutants (POP).

Classifications:

International (IPC 8-9): A23D9/00 A23D9/02 A61K31/557
C07C69/52 C07C69/587 C11B1/10 C11B3/00 C11B3/02 C11B3/04
C11B3/06 C11B3/12 C11C1/02 C11C1/04 C11C1/08 C11C3/00
C11C3/04 C11C3/10 (Advanced/Invention);
A23D9/00 C11C1/00 C11C3/00 (Core/Invention)

International (IPC 1-7): A23D9/02 C11C1/02 C11C3/00

CPC: C11C1/025 C11B3/006 C11B3/04 C11B3/06 C11C1/08
C11C3/003 A23D9/02

European: A23D9/02 C11B3/00E C11B3/04 C11B3/06 C11C1/02B
C11C1/08 C11C3/00B

US: 554/170 554/19 554/19P 554/20 554/20S 554/224 554/224S

PatBase - US2012083616_AA

Patent Application Publication

Apr. 5, 2012

US 2012/0083616 A1

FIGURE 1



Family:

Publication number	Publication date	Application number	Application date
AR076622 AA	20110622	AR2010P101896	20100531
AU2010256274 AA	20101209	AU20100256274	20100601
AU2010256274 BB	20140213	AU20100256274	20100601
CA2764242 AA	20101209	CA20102764242	20100601
CA2764242 C	20131224	CA20102764242	20100601
CL2009001343 A1	20090710	CL20090001343	20090602
CN102448314 A	20120509	CN201080023977	20100601
CN102448314 B	20131023	CN201080023977	20100601
CO6470849 A2	20120629	CO20110165139	20111130
CY1115329 T1	20170104	CY20131100459T	20130611
DK2438819 T3	20130708	DK20100732258T	20100601
DK2438819 T4	20180507	DK20100732258T	20100601
EP2438819 A1	20120411	EP20100732258	20100601
EP2438819 B1	20130424	EP20100732258	20100601
EP2438819 B2	20180214	EP20100732258	20100601
EP2438819 B9	20180502	EP20100732258	20100601
ES2411958 T3	20130709	ES20100732258T	20100601
ES2411958 T5	20180629	ES20100732258T	20100601
HR20130531 T1	20130731	HR20130000531	20130612
IN08834CN2011 A	20130322	IN2011CN08834	20111129
JP2012528901 T2	20121115	JP20120513433T	20100601
JP5721148 B2	20150520	JP20120513433T	20100601
KR101430318 B1	20140814	KR20127000063	20100601
KR20120018219 A	20120229	KR20127000063	20100601
MA33485 B1	20120801	MA20110034397	20111128
PE12672012 A1	20121006	PE20300201100	20100601
PE12672012 A1	20121006	PE20110002030	20100601
PT2438819 T	20130612	PT20100732258T	20100601
SI2438819 T1	20130731	SI20100030214T	20100601
SMT201300056 B	20130709	SM20130000056T	20130531
US2012083616 AA	20120405	US20100375030	20100601
US2014005425 AA	20140102	US20130016426	20130903
US8586772 BB	20131119	US20100375030	20100601
US8981137 BB	20150317	US20130016426	20130903
WO10139085 A1	20101209	WO2010CL00018	20100601

Priority:

CL20090001343 20090602 EP20100732258 20100601 WO2010CL00018 20100601
US20100375030 20100601 US20130016426 20130903

Probable Assignee: GOLDEN OMEGA SA

Assignee(s): (std): DIAZ FUENZALIDA MIGUEL ANGEL ; GOLDEN OMEGA S A ; GOLDEN OMEGA SA ; HAERTING GLADE TOMAS FRANCIS ; HAERTING GLADE TOMAS FRANCIS ; MARKOVITS ROJAS ALEJANDRO

Inventor(s): (std): MARKOVITS ROJAS ALEJANDRO ; HAERTING GLADE TOMAS FRANCIS ; DIAZ FUENZALIDA MIGUEL ANGEL ; HAERTING GLADE THOMAS F ; ANGEL DIAZ FUENZALIDA MIGUEL ; ALEJANDRO MARKOVITS ROJAS ; FRANCIS HAERTING GLADE TOMAS ; HAERTING GLADE TOMAS FRANCIS ; DIAZ FUENZALIDA MIGUEL ANGEL ; HAERTING GLADE THOMAS FRANCIS ; FRANCIS HAERTING GLADE TOMAS ; ROJAS ALEJANDRO MARKOVITS ; GLADE TOMAS FRANCIS HAERTING

Inventor(s): TOMAS FRANCIS HARTING GLADE ; MIGUEL ANGEL DIAZ FUENZALIDA ; TOMAS FRANCIS HAERTING GLADE

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; GOWLING LAFLEUR HENDERSON LLP; BUCHAT BARROS AND PFENNIGER; GRUENECKER KINKELDEY STOCKMAIR AND SCHWANHAUESSER; HOFFMANN EITL; MILTENYI PETER; FUSTER GUSTAVO NICOLAS; FISH AND RICHARDSON PC; BEUCHAT BARROS AND PFENNIGER

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

38) Family number: 57606627 (US2016060567A)

© PatBase

Title: A PROCESS FOR TREATING FATS AND OILS

Abstract: Disclosed is a process for de-acidification of fats and oils, to obtain micronutrients, to obtain a fatty acid product, and recovery of refined oils, comprising: feeding pre-treated oil feed stream to a vacuum steam stripping section, stripping off volatile phases. Feeding the stripped off the volatile phases to a condensing stage providing a condensed phase and a vapour phase. Sending the condensed phase to a vacuum distillation operation and sending the vapour phase to a cold condensation stage. Subjecting the condensed phase to a vacuum distillation operation, and obtaining a high temperature distillate and a stream of volatiles. Feeding the vapour phase from the high temperature condensing stage along with the stream of volatiles from the vacuum distillation operation to the cold condensation stage obtaining a stream of non-condensable gases and a cold temperature distillate, letting the stream of non-condensable gases continue to a vacuum system, and recovering from the vacuum steam stripping section a stream of refined oil.

Classifications:

International (ipc 8-9): B01D3/10 B01D3/14 B01D3/38 B01D5/00 C11B3/00 C11B3/12 C11B3/14 C11C1/10 (Advanced/Invention)

CPC: B01D3/10 B01D3/143 C11B3/14 C11B3/00 B01D5/006 C11B3/001 C11B3/12 C11B3/006 C11C1/106

US: 203/75 203/76

PatBase - US2016060567_AA

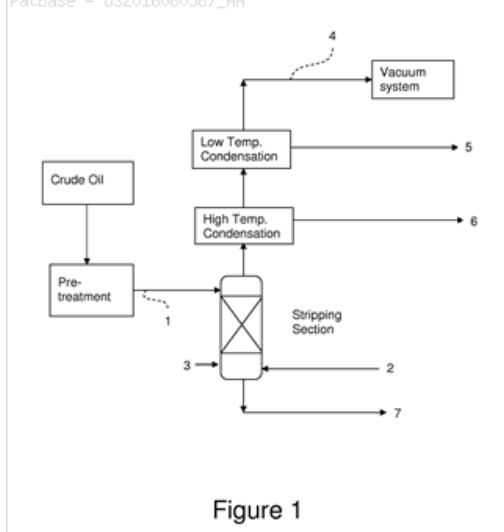


Figure 1

Family:

Publication number	Publication date	Application number	Application date
AR096025 AA	20151202	AR2014P101584	20140414
BR112015025948 A2	20170725	BR20151125948	20140325
CN105121615 A	20151202	CN201480021172	20140325
CN105121615 B	20180413	CN201480021172	20140325
DE602013023627 D1	20170831	DE201360023627T	20130415
EP2792734 A1	20141022	EP20130163784	20130415
EP2792734 B1	20170719	EP20130163784	20130415
ES2641363 T3	20171108	ES20130163784T	20130415
IN03044KN2015 A	20160624	IN2015KN03044	20150917
RU2015148759 A	20170522	RU20150148759	20140325
RU2628515 C2	20170817	RU20150148759	20140325
US2016060567 AA	20160303	US20140783348	20140325
US10150053 BB	20181211	US20140783348	20140325
UY35531 A1	20141128	UY20140035531	20140411
WO14170097 A1	20141023	WO2014EP55901	20140325

Priority:

EP20130163784 20130415 WO2014EP55901 20140325

Probable Assignee: ALFA LAVAL CORPORATE AB

Assignee(s): (std): ALFA LAVAL CORP AB ; ALFA LAVAL KORPOREJT AB

Assignee(s): ALFA LAVAL CORPORATE AB

Inventor(s): (std): BENT SARUP ; SARUP BENT

Agent(s): ALFA LAVAL ATTORNEYS; ISERN JORGE; BIRCH STEWART KOLASCH AND BIRCH LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: Process for producing edible quality refined fish oil from menhaden, and other similar fish containing omega-3 long chain fatty acids

Abstract: A method for producing edible quality refined fish oil comprising the steps of extracting press liquor from a cooked fish, wherein the press liquor consists primarily of fish oil and water inherent in the cooked fish. The fish oil is from the group of fish consisting of menhaden, other similar fish, and mixtures thereof. Enzymes present in the press liquor are deactivated by injecting an acidic solution into said press liquor. After the fish oil is removed from the press liquor, the fish oil is cold filtered to produce an olein fraction and a stearine fraction. The stearine fraction is separated from the olein fraction and fatty acids that remain in the olein fraction are removed. Then bleaching the fish oil by mixing amorphous silica and diatomaceous earth with the fish oil, under vacuum conditions, and deodorizing the fish oil under vacuum conditions with steam injection. Finally, preparing the fish oil for storage by mixing a chelating agent and anti-oxidants with fish oil. Also disclosed is a refined fish oil that is free of unsavory taste or smell, have an anisidine number of less than 6, and retain more than 98 percent of the omega-3 long chain fatty acids present in the natural unrefined fish oil.

Classifications:

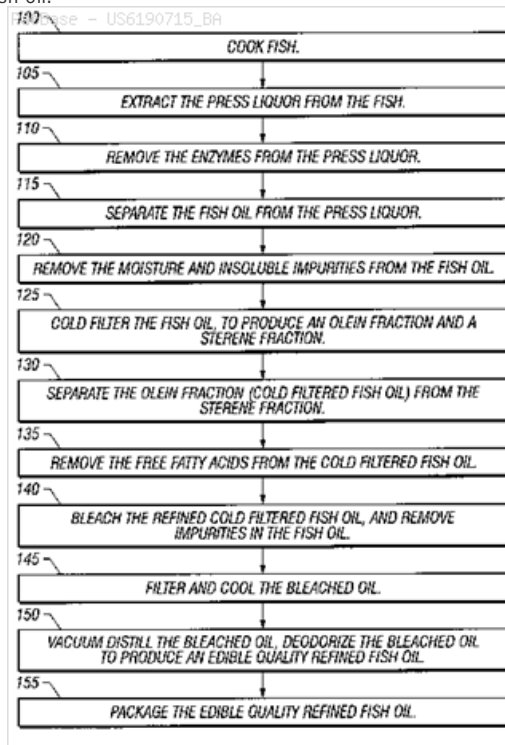
International (IPC 8-9): A23D9/02 C11B1/02 C11B1/06 C11B3/00 C11B5/00 C11B7/00 (Advanced/Invention); A23D9/02 (Core/Invention)

International (IPC 1-7): A23D9/02

CPC: C11B1/02 C11B1/06 C11B3/001 C11B5/0092 C11B7/0075

European: C11B1/02 C11B1/06 C11B3/00B C11B5/00S C11B7/00C

US: 426/330.6 426/417 426/478 426/489 426/643 554/8



Family:

Publication number	Publication date	Application number	Application date
CA2392606 AA	20020523	CA20002392606	20001201
CA2392606 C	20100209	CA20002392606	20001201
EP1265491 A1	20021218	EP20000992613	20001201
EP1265491 A4	20040414	EP20000992613	20001201
US6190715 BA	20010220	US19990452417	19991201
WO0141582 A1	20010614	WO2000US42535	20001201

Priority:

US19990452417 19991201 WO2000US42535 20001201

Probable Assignee: WELLS FARGO BANK NA ADMINISTRATIVE AGENT AS

Assignee(s): (std): OMEGA PROTEIN INC

Assignee(s): BOOTH BRUCE HOWARD ; CROWTHER JANE BRUCE ; OMEGA PROTEIN CORP ; WELLS FARGO BANK NATIONAL ASSOCIATION ; WELLS FARGO BANK NA ADMINISTRATIVE AGENT AS ; ABLECO FINANCE LLC AGENT AS ; ABLECO FINANCE LLC AS AGENT ; BANK OF AMERICA NA ; BANK OF AMERICA NA ADMINISTRATIVE AGENT AS ; BLACKWELL DELOIS DEMERY

Inventor(s): (std): CROWTHER JANE BRUCE ; BOOTH BRUCE HOWARD ; BLACKWELL DELOIS DEMERY

Agent(s): RICHES MCKENZIE AND HERBERT LLP

Designated states: AT BE CA CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

40) Family number: 33252740 (US2006189815A)

Title: QUALITY OF CRUDE OILS AND FATS AND RECOVERY OF MINOR COMPONENTS

Abstract: The present invention discloses a process for the recovery of minor components from oils and fats without destroying the natural components and simultaneously improving the quality of vegetable oils and fats.

Classifications:

International (IPC 8-9): C07C51/42 C07C67/48 C07D311/04 C07D311/72 C11B1/10 C11B1/12 C11B11/00 C11B3/00 C11B3/12 C11B7/00 (Advanced/Invention);

A23D9/007 A23D9/02 (Advanced/Non-invention);

C07D311/00 C11B1/00 C11B11/00 C11B3/00 (Core/Invention);

A23D9/007 A23D9/02 (Core/Non-invention)

CPC: C11B7/00 C11B3/001 C11B3/006 C11B3/12

European: C11B3/00B C11B3/00E C11B3/12 C11B7/00

US: 454/67 549/413 554/206 554/207

Family:

Publication number	Publication date	Application number	Application date
AU2006200371 AA	20100128	AU20060200371	20060127
AU2006200371 BB	20111201	AU20060200371	20060127
CN1821238 A	20060823	CN200610007270	20060216
CN1821238 B	20120606	CN200610007270	20060216
EP1693435 A1	20060823	EP20060250831	20060216
JP2006225661 A2	20060831	JP20060038760	20060216
JP5068461 B2	20121107	JP20060038760	20060216
MY139644 A	20091030	MY20050000577	20050217
SG125211 A1	20060929	SG20060000981	20060215
US2006189815 AA	20060824	US20060336454	20060120
US7507847 BB	20090324	US20060336454	20060120

Priority:

MY20050000577 20050217 MY20050500577 20050217

Probable Assignee: PALM NUTRACEUTICALS SDN BND

Assignee(s): (std): PALM NUTRACEUTICALS SDN BHD ; PALM NUTRACEUTICALS SDN BND ; TOU GEE P

Inventor(s): (std): TOU GEE PING ; TOU GEE P ; TOU GEE PING DR ; PING TOU GEE

Inventor(s): GEE PING TOU ; TOU GEE ; DR GEE PING TOU

Agent(s): PHILLIPS ORMONDE FITZPATRICK; WOLF GREENFIELD AND SACKS PC

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

41) Family number: 33252741 (US2008282601A)

© PatBase

Title: Hardened Vegetable Oils and Derivatives Thereof

Abstract: The present invention concerns a fully hardened or partially hardened triglyceride vegetable oil composition and derivatives thereof comprising inter alia fatty acids, mono-glycerides, di-glycerides and so forth. These compositions may comprise triglyceride oils or derivatives thereof with a content of various tocopherols not exceeding a level of 20 ppm. The products according to the present invention show less colour development or colour reversion with time, in particular upon exposure to heat and/or air.

Classifications:

International (IPC 8-9): C08L91/06 C11C1/00 C11C1/10 C11C3/00 C11C3/10 C11C5/00 C11D11/00 (Advanced/Invention)

CPC: C11B3/12 C11C1/04 C11C1/10 C11C3/06 C11C3/10 C11C3/12 C11C5/002 C11D3/18 C11D3/2093 C11D3/382

European: C11B3/12 C11C1/04 C11C1/10 C11C3/06 C11C3/10 C11C3/12 C11C5/00B C11D3/18 C11D3/20F C11D3/382

US: 44/275 44/275P

Family:

Publication number	Publication date	Application number	Application date
EP1693436 A1	20060823	EP20050003673	20050221
EP1851295 A1	20071107	EP20060707128	20060221
US2008282601 AA	20081120	US20060816783	20060221
WO06087234 A1	20060824	WO2006EP01553	20060221

Priority:

EP20050003673 20050221 EP20060707128 20060221 WO2006EP01553 20060221

Probable Assignee: CARGILL INC

Assignee(s): (std): CARGILL INC ; LUETTKE JENS ; LUTTKE JENS

Inventor(s): (std): LUETTKE JENS ; LUETTKE JENS DR ; LUTTKE JENS

Agent(s): FISH AND RICHARDSON PC

Designated states: AE AG AL AM AT AU AZ BA BB BE BF BG BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GW HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LC LI LK LR LS LT LU LV LY MA MC MD MG MK ML MN MR MW MX MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RU SC SD SE SG SI SK SL SM SN SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW

42) Family number: 51480745 (US2013287925A)

© PatBase

Title: PHYSICAL REFINING OF TRIGLYCERIDE OILS AND FATS

Abstract: A process for the physical refining of edible oils and fats, said process comprising three consecutive stages, whereby in a first stage at least 60 percent by weight of the volatiles are evaporated in a flash vessel, in a second stage some residual volatiles are evaporated by countercurrent steam stripping using a packed column (3), and in a third stage further residual volatiles are evaporated in a cross-flow tray system (2), wherein the pressure in said flash vessel is maintained at a value below the pressure prevailing above said packed column (3); and an apparatus for the physical refining of edible oils and fats comprising a flash vessel, a packed column (3), sparging trays (2) and the means to maintain the pressure in said flash vessel at a value that is below the pressure prevailing above said packed column.

Classifications:

International (IPC 8-9): A23D9/04 B01D B01D1/00 B01D3/06

B01D3/38 C11B C11B3/00 C11B3/12 C11B3/14

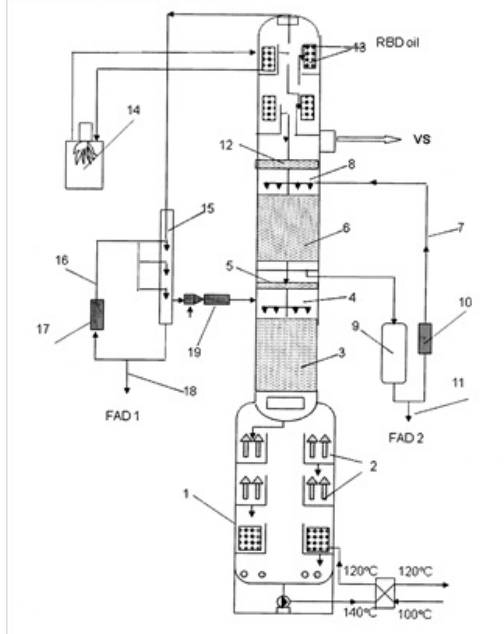
C11C1/10 (Advanced/Invention);

A23D9/00 B01D3/14 (Advanced/Non-invention)

CPC: B01D1/00 B01D3/06 B01D3/38 C11B3/001 C11C1/10

A23D9/04 B01D1/28 C11B3/14

US: 202/153 426/417 426/601

**Family:**

Publication number	Publication date	Application number	Application date
DE102013102208 A1	20131031	DE201310102208	20130306
GB201207321 A0	20120613	GB20120007321	20120427
GB2501519 A1	20131030	GB20120007321	20120427
HK1188810 A1	20140516	HK20140101641	20140220
US2013287925 AA	20131031	US20130869468	20130424
US8951592 BB	20150210	US20130869468	20130424

Priority:

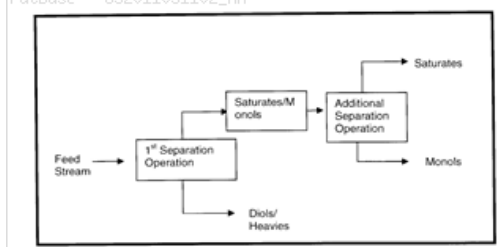
GB20120007321 20120427

Probable Assignee: DESMET BALLESTRA ENGINEERING NV SA**Assignee(s):** (std): DESMET BALLESTRA ENGINEERING NV SA ; DESMET BALLESTRA ENGINEERING S A NV ; DESMET BALLESTRA ENGINEERING SA NV**Assignee(s):** N V DESMET BALLESTRA ENGINEERING S A ; N V DESMET BALLESTRA ENGINEERING SA**Inventor(s):** (std): USSEGLIO MARCELO ; SCHOLS BART ; KELLENS MARC**Inventor(s):** BART SCHOLS ; MARCELO USSEGLIO ; MARC KELLENS**Agent(s):** RUBY YEUNG AND CO; WEGMAN HESSLER AND VANDERBURG**43) Family number: 42783762** (US2011031102A)

© PatBase

Title: PURIFICATION OF HYDROFORMYLATED AND HYDROGENATED FATTY ALKYL ESTER COMPOSITIONS**Abstract:** Effect separation of a composition of matter that includes at least two seed or plant oil derivatives into at least one desired product stream using at least two separation operations, which are independently selected from among several potential separation operations, in conjunction with at least one recycle stream from a separation operation.**Classifications:****International (IPC 8-9):** B01D1/00 B01D1/22 B01D15/08 B01D15/18 B01D3/00 B01D3/10 C07C6/00 C07C67/00 C07C67/56 C07C69/00 C07D311/72 C11C3/00 C11C3/12 (Advanced/Invention); B01D1/00 B01D1/22 B01D15/08 B01D15/10 B01D3/10 C07C6/00 C07C67/00 C07C69/00 C11C3/00 (Core/Invention)**International (IPC 1-7):** B01D1/00 B01D1/22 B01D15/08 B01D3/10 C07C6/00 C07C67/00 C07C67/56 C07C69/00 C11C3/00 C11C3/12**CPC:** B01D1/22 B01D3/10 B01D15/1821 C07C67/56 C11C3/00 C11C3/12**European:** B01D1/22 B01D3/10 C07C67/56 C11C3/00 C11C3/12 L01D15/18R2**US:** 159/49 159/5 202/173 203/39 203/41 203/41P 203/72 203/72S 203/75 203/75S 549/413

PatBase - US2011031102_AA

**Family:**

Publication number	Publication date	Application number	Application date
AR071435 AA	20100623	AR2008P102911	20080704
BRPI0812609 A2	20190219	BR2008PI12609	20080620
CA2692591 AA	20100105	CA20082692591	20080620
CN101795743 A	20100804	CN200880105876	20080620
CN101795743 B	20130417	CN200880105876	20080620
DE602008021164 D1	20130228	DE200860021164T	20080620
EP2268373 A2	20110105	EP20080771534	20080620
EP2268373 B1	20121226	EP20080771534	20080620
IN00060CN2010 A	20100716	IN2010CN00060	20100105
MY149004 A	20130628	MY20100000024	20080620
US2011031102 AA	20110210	US20080667884	20080620

US8404086 BB	20130326	US20080667884	20080620
WO09009271 A2	20090115	WO2008US67585	20080620
WO09009271 A3	20090716	WO2008US67585	20080620

Priority:

US20070958473P 20070706 EP20080771534 20080620 WO2008US67585 20080620
US20080667884 20080620

Probable Assignee: DOW GLOBAL TECHNOLOGIES LLC

Assignee(s): (std): FEIST SHAWN D ; FRYCEK GEORGE J ; LYSENKO ZENON ; PYNNONEN BRUCE W ; PHILLIPS JOE D ; FRANK TIMOTHY C ; DOW GLOBAL TECHNOLOGIES INC ; DOW GLOBAL TECHNOLOGIES LLC

Assignee(s): DOW GLOBAL TECHNOLOGIES LLC MIDLAND

Inventor(s): (std): ZENON LYSENKO ; FRYCEK GEORGE ; FRANK TIMOTHY ; PYNNONEN BRUCE W ; PHILLIPS JOE D ; PHILLIPS JOE D ; LYSENKO ZENON ; FRYCEK GEORGE J ; FRYCEK GEORGE ; FRANK TIMOTHY C ; FEIST SHAWN D

Inventor(s): FEIST SHAWN ; BRUCE W PYNNONEN ; JOE D PHILLIPS ; GEORGE J FRYCEK ; PHILLIPS JOE ; PYNNONEN BRUCE ; TIMOTHY C FRANK ; SHAWN D FEIST

Agent(s): SMART AND BIGGAR; MURGITROYD AND CO; HAYES ADRIAN CHETWYND; THE DOW CHEMICAL COMPANY; DOW CHEMICAL CO; HOWARD DAN R

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

44) Family number: 20666863 (WO9700309A1)

© PatBase

Title: PROCESS FOR THE ENZYMIC PREPARATION OF OILY EXTRACTS ENRICHED WITH NATURAL ANTIOXIDANTS

Abstract: The process comprises (a) subjecting to an enzymatic reaction a deodorate of animal or plant oils previously subjected to a vacuum distillation; (b) subjecting the resulting product to a distillation in two steps, the first step at 200-240 degrees centigrade and the second at 210-280 DEG C; (c) treating the distillation fraction rich in antioxidants, followed by filtration, centrifugation and distillation. Application to the human and animal food industry.

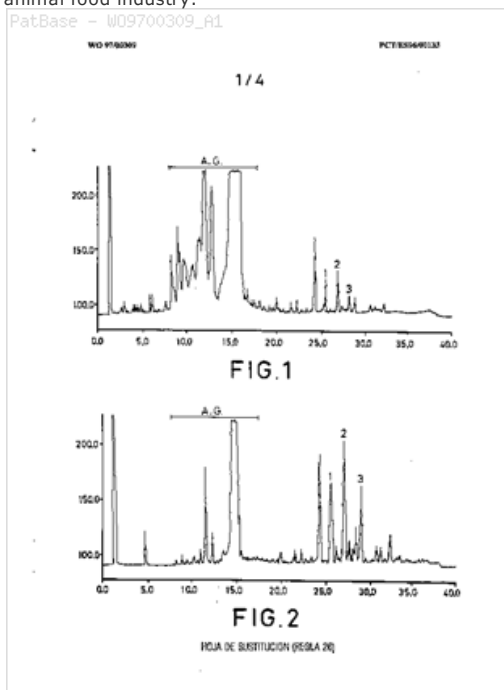
Classifications:

International (IPC 8-9): C07D311/72 C11B7/00 C11C1/04 C11C1/10 C11C3/02 C12P7/64 C12S3/00 (Advanced/Invention)

International (IPC 1-7): C07D311/72 C11B7/00 C11C1/04 C11C1/10 C11C3/02 C12P7/64 C12S3/00

CPC: C07D311/72 C11B7/0025 C11C1/045 C11C1/10 C11C3/02 C12P7/64 C12P17/06

European: C07D311/72 C11B7/00B4 C11C1/04B C11C1/10 C11C3/02 C12P17/06 C12P7/64



Family:

Publication number	Publication date	Application number	Application date
ES2093570 AA	19961216	ES19950001209	19950615
ES2093570 BA	19970701	ES19950001209	19950615
WO9700309 A1	19970103	WO1996ES00133	19960614

Priority:

ES19950001209 19950615

Probable Assignee: SAURA LOPEZ DOMINGO

Assignee(s): (std): SAURA LOPEZ DOMINGO

Inventor(s): (std): SAURA LOPEZ DOMINGO

Designated states: AT BE CH DE DK ES FI FR GB GR IE IT JP LU MC NL PT SE US

45) Family number: 44229888 (US2011220483A)

© PatBase

Title: PROCESS FOR THE EXTRACTION OF SQUALENE, STEROLS AND VITAMIN E CONTAINED IN CONDENSATES OF PHYSICAL REFINING AND/OR IN DISTILLATES OF DEODORIZATION OF PLANT OILS

Classifications:

C07C11/00 C07J9/00 C11B3/00 C11C3/00 (Core/Invention)

CPC: C07C11/21 C07J9/00 C11B3/12 C11C3/003 C11C3/02

European: C07C11/21 C07J9/00 C11B3/12 C11C3/00B C11C3/02

US: 203/34 203/34P 203/46 203/46S

Pat.Base = US2011220483 AA

Patent Application Publication

Sep. 15, 2011

US 20110220483 A1

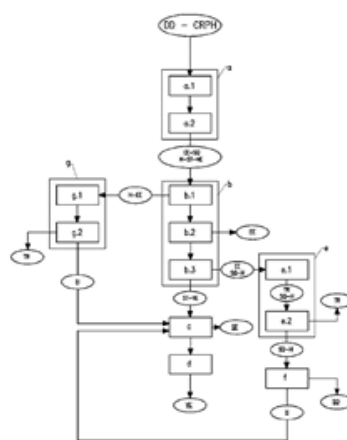


Fig. 1

Publication number	Publication date	Application number	Application date
BRPI0915344 A2	20151027	BR2009PI15344	20090702
CN102089263 A	20110608	CN200980126253	20090702
EP2303813 A1	20110406	EP20090794030	20090702
FR2933403 A1	20100108	FR20080054595	20080707
FR2933403 B1	20100827	FR20080054595	20080707
JP2011527319 T2	20111027	JP20110517198T	20090702
US2011220483 AA	20110915	US20090002844	20090702
WO10004193 A1	20100114	WO2009FR51287	20090702

FR20080054595 20080707 WO2009FR51287 20090702

Assignee(s): (std): CECCHI GEORGES ; GUILLON OLIVIER ; MARGNAT JACQUES ; SOPHIM

Inventor(s): (std): CECCHI GEORGES ; GEORGES CECCHI ; GUILLON OLIVIER ; JACQUES MARGNAT ; MARGNAT JACQUES ; OLIVIER GUILLON

Agent(s): ROMAN ALEXIS; MICHEL ROMAN; CABINET ROMAN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU
CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL
IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT
MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST
SV SY SZ TD TG TI TN TR TT TZ UA UG US UZ VC VN VZ ZA ZM ZW