

Search query (2): PN=(US20110168523 OR US1953353 OR US2012261308 OR US5891325 OR US6086751 OR US20080217211 OR WO2011005744 OR US20110210043 OR US5985137 OR MXPA05007911)

Results: 10

16-027224-2

Exam. Estefanía Páez.

Search history

Search PN=(US20110168523 OR US1953353 OR US2012261308 OR US5891325 OR US6086751 OR US20080217211 OR WO2011005744 OR 1: US20110210043 OR US5985137) (Results 9)

Search PN=(US20110168523 OR US1953353 OR US2012261308 OR US5891325 OR US6086751 OR US20080217211 OR WO2011005744 OR 2: US20110210043 OR US5985137 OR MXPA05007911) (Results 10)

Title: PROCESS OF TREATING HYDROCARBON OILS

Classifications:

CPC: C10G7/00 C10G31/00

European: 23B7Z2 C10G31/00 C10G7/00

US: 126/343.5A 208/177 208/263

Family:

Publication number	Publication date	Application number	Application date
US1953353 A	19340403	US19300476440	19300819

Priority:

US19300476440 19300819

Probable Assignee: ASSOCIATED OIL CO

Assignee(s): (std): ASSOCIATED OIL CO ; ASSOCIATED OIL COMPANY

Inventor(s): (std): EVANS JOHN M ; ARTHUR LAZAR

Inventor(s): LAZAR ARTHUR

Legal status (INPADOC)

[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
US1953353 A	19340403	LSGT	+	granted / extensions (spc, cpc, pte)	

Title: Thermal process for reducing total acid number of crude oil

Abstract: Source: US6086751A TAN containing oils, e.g., crudes, are treated by flashing to remove substantially all of the water therefrom, thermally treating the recovered liquid to reduce the naphthenic acid content thereof, and re-combining light gases recovered from the flashing step with the treated liquid.

Classifications:

International (IPC 8-9): C10G31/06 (Advanced/Invention);

C10G31/00 (Core/Invention)

International (IPC 1-7): C10G17/00 C10G31/06 C10G31/6

CPC: C10G31/06

European: C10G31/06

US: 208/263 208/47

PatBase - US6086751_A

U.S. Patent

Jul. 11, 2000

Sheet 1 of 3

6,086,751

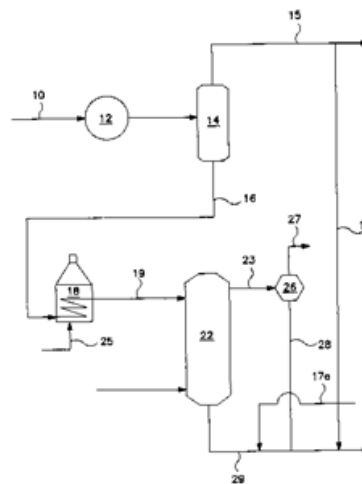


FIG. 1

Family:

Publication number	Publication date	Application number	Application date
AU199890406 A1	19990316	AU19980090406	19980828
AU735810 B2	20010719	AU19980090406	19980828
CA2294952 AA	19991222	CA19982294952	19980828
CA2294952 C	20050614	CA19982294952	19980828
DE69804025 D1	20020404	DE19986004025	19980828
DE69804025 T2	20020814	DE19986004025T	19980828
DK1062298 T3	20020402	DK19980942323T	19980828
EP1062298 A1	20001227	EP19980942323	19980828
EP1062298 B1	20020227	EP19980942323	19980828
ES2172912 T3	20021001	ES19980942323T	19980828
US6086751 A	20000711	US19970920549	19970829
WO9910452 A1	19990304	WO1998US18050	19980828

Priority:

US19970920549 19970829 WO1998US18050 19980828

Probable Assignee: EXXON RESEARCH AND ENGINEERING CO

Assignee(s): (std): EXXON RESEARCH ENGINEERING CO ; EXXONMOBIL RES AND ENG CO ; EXXONMOBIL RES AND ENGINEERING

Assignee(s): EXXONMOBIL RESEARCH AND ENGINEERING COMPANY ; EXXONMOBIL RESEARCH AND ENGINEERING COMPANY FLORHA ; EXXONMOBIL RESEARCH AND ENGINEERING CO FLORHAM PAR ; EXXONMOBIL RESEARCH AND ENGINEERING COMPANY FLORHAM PARK ; EXXONMOBIL RESEARCH AND ENGINEERING CO FLORHAM PARK ; PATEL RUTTON DINSHAW ; MATRAGRANO JOHN G ; BEARDEN ROBY JR ; BIENSTOCK MARTIN G ; EXXON RESEARCH AND ENGINEERING CO ; EXXON RESEARCH AND ENGINEERING COMPANY

Inventor(s): (std): BEARDEN JR ; BEARDEN JR ROBY ; BEARDEN ROBY ; BEARDEN ROBY JR ; BIENSTOCK G ; BIENSTOCK MARTIN G ; BIENSTOCK MARTY G ; MATRAGRANO G ; MATRAGRANO JOHN G ; PATEL DINSHAW ; PATEL RUTTON DINSHAW

Inventor(s): ROBY BEARDEN ; ROBY BEARDEN JR ; RUTTON DINSHAW PATEL ; JOHN G MATRAGRANO ; MARTIN G BIENSTOCK

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP

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

Legal status (INPADOC)

[View legal status timeline](#)

Patent Date recorded Event group Code Event Details

AU199890406 A1	19990316	LSPB	+	published / reissued
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AU735810 B2	20010719	LSGT	+	granted / extensions (spc, cpc, pte)	
AU735810 B2	20011115	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
CA2294952 AA	19991222	LSPB	+	published / reissued	
CA2294952 AA	19991222	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2294952 AA	20020416	LSES	+EEER	EXAMINATION REQUEST	
CA2294952 C	20050614	LSGT	+	granted / extensions (spc, cpc, pte)	
DE69804025 D1	20030327	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
DE69804025 T2	20020814	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1062298 T3	20020402	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1062298 A1	20001227	LSPB	+	published / reissued	
EP1062298 A1	20001227	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000328
EP1062298 A1	20010425	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20010308
EP1062298 A1	20020619	LSAS	RAP2	TRANSFER OF RIGHTS OF AN EP GRANTED PATENT	OWNER NAME : EXXONMOBIL RESEARCH AND ENGINEERING COMPANY
EP1062298 A1	20021001	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2172912 COUNTRY OF REF DOCUMENT : ES KIND CODE OF REF DOCUMENT : T3 FORMAT OF REF DOCUMENT (F/P) : P
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EP1062298 A1	20120314	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : NL REF LEGAL EVENT CODE : V1 EFFECTIVE DATE : 20120301
EP1062298 A1	20120425	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON- PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20110828
EP1062298 A1	20120430	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP1062298 A1	20120518	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20120430
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EP1062298 A1	20130604	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20130604
EP1062298 A1	20130628	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20120301
EP1062298 A1	20130731	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : ES DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20110829
EP1062298 B1	20020227	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2172912 T3	20021001	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2172912 T3	20021001	LSGT	+FG2A	DEFINITIVE PROTECTION	REF DOCUMENT NUMBER : 1062298 COUNTRY OF REF DOCUMENT : ES
US6086751 A	20000711	LSGT	+	granted / extensions (spc, cpc, pte)	
US6086751 A	19991108	LSAS	AS	ASSIGNMENT	OWNER NAME : EXXON RESEARCH AND ENGINEERING CO., NEW JERSEY DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BIENSTOCK, MARTIN G.; MATRAGRANO, JOHN G.; PATEL, RUTTON D.; AND OTHERS; REEL/FRAME:010385/0569; SIGNING DATES FROM 19980206 TO 19980218
US6086751 A	20031223	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US6086751 A	20080104	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US6086751 A	20110923	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 12

WO9910452 A1	19990304	LSPB	+	published / reissued	
WO9910452 A1	19991222	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA REF DOCUMENT NUMBER : 2294952 KIND CODE OF REF DOCUMENT : A FORMAT OF REF DOCUMENT (F/P) : F
WO9910452 A1	19991222	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2294952 COUNTRY OF REF DOCUMENT : CA
WO9910452 A1	20000201	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 90406/98 COUNTRY OF REF DOCUMENT : AU
WO9910452 A1	20000328	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1998942323 COUNTRY OF REF DOCUMENT : EP
WO9910452 A1	20001227	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998942323 COUNTRY OF REF DOCUMENT : EP
WO9910452 A1	20011101	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 90406/98 COUNTRY OF REF DOCUMENT : AU
WO9910452 A1	20020227	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1998942323 COUNTRY OF REF DOCUMENT : EP

Title: Process for reducing total acid number of crude oil

Abstract: Source: US5891325A The instant invention is directed to a process for reducing organic acids in petroleum feeds containing organic acids comprising: (a) thermally treating a petroleum feed containing organic acids in a thermal reaction zone comprising a plurality of stages in series, at a temperature and pressure sufficient to decompose at least a portion of said organic acids while sweeping said plurality of stages with an inert gas, to produce a volatile organic acid containing hydrocarbon fraction and a non-volatile hydrocarbon fraction; (b) treating said volatile hydrocarbon fraction to neutralize at least a portion of said organic acids therein and to produce a treated volatile hydrocarbon fraction; (c) collecting said non-volatile hydrocarbon fraction from said thermal reaction zone; and (d) blending said treated volatile hydrocarbon fraction of step (b) with said collected non-volatile hydrocarbon fraction.

Classifications:

International (IPC 8-9): C10G19/073 C10G31/06 C10G53/12

C10G55/04 (Advanced/Invention);

C10G17/00 (Advanced/Non-invention);

C10G19/00 C10G31/00 C10G53/00 C10G55/00 (Core/Invention)

International (IPC 1-7): C01G45/02 C10G C10G 45/02 C10G17/00

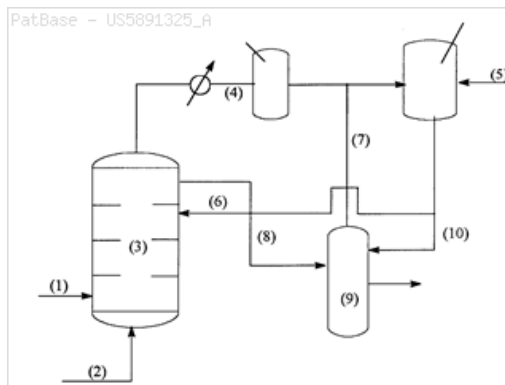
C10G19/02 C10G19/073 C10G29/06 C10G31/06 C10G45/02

C10G53/12 C10G55/04

CPC: C10G31/06

European: C10G31/06

US: 208/263 208/283 208/284 208/285



Family:

Publication number	Publication date	Application number	Application date
AR022360 AA	20020904	AR1999P103842	19990802
AT236235 E	20030415	AT19990934076T	19990716
AU199949991 A1	20000306	AU19990049991	19990716
AU199949991 A5	20000306	AU19990049991	19990716
AU750406 B2	20020718	AU19990049991	19990716
BRPI9912882 A	20010508	BR1999PI12882	19990716
CA2338623 AA	20010124	CA19992338623	19990716
CN1312849 A	20010912	CN19998009440	19990716
DE69906549 D1	20030508	DE19996006549	19990716
DE69906549 T2	20040115	DE19996006549T	19990716
DK1109879 T3	20030422	DK19990934076T	19990716
EP1109879 A1	20010627	EP19990934076	19990716
EP1109879 B1	20030402	EP19990934076	19990716
ES2194485 T3	20031116	ES19990934076T	19990716
ID28396 A	20010517	ID20010000560	19990716
JP2003534391 T2	20031118	JP20000565068T	19990716
KR20010088788 A	20010928	KR20017001702	20010209
NO20010599 A	20010205	NO20010000599	20010205
NO20010599 A0	20010205	NO20010000599	20010205
NO315709 B1	20031013	NO20010000599	20010205
RU2001103893 A	20030627	RU20010103893	19990716
RU2207366 C2	20030627	RU20010103893	19990716
TH40152 A	20000914	TH19991002558	19990712
TW500796 B	20020901	TW19990113759	19990817
US5891325 A	19990406	US19980132295	19980811
WO0009631 A1	20000224	WO1999US16058	19990716

Priority:

US19980132295 19980811 WO1999US16058 19990716

Probable Assignee: EXXON RESEARCH AND ENGINEERING CO

Assignee(s): (std): EHKSSON RISERCH EHND EHNDZHINI ; EXXON RESEARCH ENGINEERING CO ; EXXONMOBIL RES AND ENG CO

Assignee(s): EXXONMOBIL RESEARCH AND ENGINEERING COMPANY ; EXXONMOBIL RESEARCH AND ENGINEERING CO ANNANDALE ; EXXONMOBIL RESEARCH AND ENGINEERING CO ; ROBBINS WINSTON KARL ; OLMSTEAD WILLIAM NEERGAARD ; EHKSSON RISERCH EHND EHNDZHINIRING KOMPANI ; EXXON RESEARCH AND ENGINEERING CO ; EXXON RESEARCH AND ENGINEERING COMPANY ; BEARDEN ROBY JR ; BLUM SAUL CHARLES

Inventor(s): (std): BEARDEN JR ; BEARDEN JR ROBY ; BEARDEN R JR ; BEARDEN ROBY ; BEARDEN ROBY JR ; BIRDEN ROBI MLADSHIJ ; BLAM SOL CHARLZ ; BLUM CHARLES ; BLUM S C ; BLUM SAUL C ; BLUM SAUL CHARLES ; OLMSTEAD NEERGAARD ; OLMSTEAD W N ; OLMSTEAD WILLIAM ; OLMSTEAD WILLIAM N ; OLMSTEAD WILLIAM NEERGAARD ; OLMSTEAD UIL JAM NIRGARD ; OMSTEAD WILLIAM NEERGAARD ; ROBBINZ UINSTON KARL ; ROBBINS KARL ; ROBBINS WINSTON KARL

Inventor(s): ROBBINS WINSTONKARL ; ROBY BEARDEN ; ROBY BEARDEN JR ; S C BLUM ; SAUL C BLUM ; SAUL CHARLES BLUM ; SC BLUM ; W N OLMSTEAD ; WILLIAM N OLMSTEAD ; WILLIAM NEERGAARD OLMSTEAD ; WILLIAM NEERGAARD OMSTEAD ; WINSTON KARL ROBBINS ; WN OLMSTEAD ; R JR BEARDEN ; RJR BEARDEN ; OLMSTED UIL'JAM NIRGARD ; OLMSTEAD WILLIAMNEERGAARD ; BLUM SAULCHARLES ; BEARDEN ROBYJR

Agent(s): WATERMARK PATENT AND TRADE MARKS ATTORNEYS; WATERMARK INTELLECTUAL PROPERTY PTY LTD; BORDEN LADNER GERVAIS LLP

Designated states: AT AU BE BR CA CH CN CY DE DK ES FI FR GB GR ID IE IT JP KR LI LU MC MX NL NO PT RU SE SG

Legal status (INPADOC)
[View legal status timeline](#)

Patent	Date recorded	Event group	Code	Event	Details
AR022360 AA	20020904	LSPB	+	published / reissued	
AR022360 AA	20060929	LSGT	+FG	GRANT, REGISTRATION	
AT236235 E	20030415	LSGT	+	granted / extensions (spc, cpc, pte)	
AT236235 E	20031015	LSLE	-RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES	
AU199949991 A1	20000306	LSPB	+	published / reissued	
AU199949991 A5	20000306	LSPB	+	published / reissued	
AU750406 B2	20020718	LSGT	+	granted / extensions (spc, cpc, pte)	
AU750406 B2	20020606	LSAS	TC	CHANGE OF APPLICANT'S NAME (SEC. 104)	PARTYTYPE : OWNER OWNER : EXXONMOBIL RESEARCH AND ENGINEERING COMPANY OLDPARTY : FORMER NAME: EXXON RESEARCH AND ENGINEERING COMPANY
AU750406 B2	20021121	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED (STANDARD PATENT)	
BRPI9912882 A	20010508	LSPB	+	published / reissued	
BRPI9912882 A	20091229	LSRV	-B11B	DISMISSAL ACC. ART. 36, PAR 1 OF IPL - NO REPLY WITHIN 90 DAYS TO FULLFIL THE NECESSARY REQUIREMENTS	
CA2338623 AA	20010124	LSPB	+	published / reissued	
CA2338623 AA	20010124	LSNP	+AFNE	NATIONAL PHASE ENTRY	
CA2338623 AA	20040630	LSES	+EEER	EXAMINATION REQUEST	
CA2338623 AA	20100716	LSLE	-FZDE	DEAD	
CA2338623 AA	20100913	LSLE	-FZDE	DEAD	EFFECTIVE DATE : 20100716
CN1312849 A	20010912	LSPB	+	published / reissued	
CN1312849 A	20010912	LSPB	+C06	PUBLICATION	
CN1312849 A	20040602	LSDW	-C02	DEEMED WITHDRAWAL OF PATENT APPLICATION AFTER PUBLICATION (PATENT LAW 2001)	
CN1312849 A	20080222	LSWD	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : HK REF LEGAL EVENT CODE : WD REF DOCUMENT NUMBER : 1039144 COUNTRY OF REF DOCUMENT : HK
DE69906549 D1	20040429	LSGT	+8364	NO OPPOSITION DURING TERM OF OPPOSITION	
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DE69906549 T2	20040115	LSGT	+	granted / extensions (spc, cpc, pte)	
DK1109879 T3	20030422	LSGT	+	granted / extensions (spc, cpc, pte)	

EP1109879 A1	20010627	LSPB	+	published / reissued	
EP1109879 A1	20010627	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20010308
EP1109879 A1	20020731	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20020617
EP1109879 A1	20030402	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : FI DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT EFFECTIVE DATE : 20030402
EP1109879 A1	20030402	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : CH DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT EFFECTIVE DATE : 20030402
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EP1109879 A1	20030402	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : GB REF LEGAL EVENT CODE : FG4D
EP1109879 A1	20030415	LSNP	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : EP
EP1109879 A1	20030430	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : FG4D
EP1109879 A1	20030702	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : PT DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT EFFECTIVE DATE : 20030702
EP1109879 A1	20030702	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : SE DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT EFFECTIVE DATE : 20030702
EP1109879 A1	20030702	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : GR DESCRIPTION : LAPSE BECAUSE OF FAILURE TO SUBMIT A TRANSLATION OF THE DESCRIPTION OR TO PAY THE FEE WITHIN THE PRESCRIBED TIME- LIMIT EFFECTIVE DATE : 20030702
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EP1109879 A1	20030716	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM	REF COUNTRY CODE : IE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20030716

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EP1109879 A1	20031015	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : CH REF LEGAL EVENT CODE : PL
EP1109879 A1	20031116	LSGT	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FG2A REF DOCUMENT NUMBER : 2194485 KIND CODE OF REF DOCUMENT : T3
EP1109879 A1	20040324	LSGT	+26N	NO OPPOSITION FILED	EFFECTIVE DATE : 20040105
EP1109879 A1	20040505	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : IE REF LEGAL EVENT CODE : MM4A
EP1109879 A1	20080731	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : DK PAYMENT DATE : 20080617 YEAR OF FEE PAYMENT : 10
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EP1109879 A1	20081128	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : FR PAYMENT DATE : 20080707 YEAR OF FEE PAYMENT : 10
EP1109879 A1	20081231	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : GB PAYMENT DATE : 20080616 YEAR OF FEE PAYMENT : 10
EP1109879 A1	20090227	LSFE	+PGFP	POSTGRANT: ANNUAL FEES PAID TO NATIONAL OFFICE	REF COUNTRY CODE : BE PAYMENT DATE : 20080730 YEAR OF FEE PAYMENT : 10
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EP1109879 A1	20100308	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : DK REF LEGAL EVENT CODE : EBP
EP1109879 A1	20100324	LSLE	-GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE	EFFECTIVE DATE : 20090716
EP1109879 A1	20100401	LSLE	-NLV4	NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE	EFFECTIVE DATE : 20100201
EP1109879 A1	20100423	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : FR REF LEGAL EVENT CODE : ST EFFECTIVE DATE : 20100331
EP1109879 A1	20100430	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA	REF COUNTRY CODE : FR DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20090731

				POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	
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EP1109879 A1	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : BE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20090731
EP1109879 A1	20100630	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DE DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20100202
EP1109879 A1	20100730	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : DK DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20090731
EP1109879 A1	20100928	LSLE	REG	REFERENCE TO A NATIONAL CODE	REF COUNTRY CODE : ES REF LEGAL EVENT CODE : FD2A EFFECTIVE DATE : 20090717
EP1109879 A1	20101029	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : ES DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20090717
EP1109879 A1	20110331	LSLE	-PG25	LAPSED IN A CONTRACTING STATE ANNOUNCED VIA POSTGRANT INFORM. FROM NAT. OFFICE TO EPO	REF COUNTRY CODE : IT DESCRIPTION : LAPSE BECAUSE OF NON-PAYMENT OF DUE FEES EFFECTIVE DATE : 20090716
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EP1109879 B1	20030402	LSGT	+	granted / extensions (spc, cpc, pte)	
ES2194485 T3	20031116	LSGT	+	granted / extensions (spc, cpc, pte)	
ID28396 A	20010517	LSPB	+	published / reissued	
JP2003534391 T2	20031118	LSPB	+	published / reissued	
JP2003534391 T2	20060616	LSES	+A621	WRITTEN REQUEST FOR APPLICATION EXAMINATION	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A621 EFFECTIVE DATE : 20060615
JP2003534391 T2	20090203	LSES	-A131	NOTIFICATION OF REASONS FOR REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A131 EFFECTIVE DATE : 20090203
JP2003534391 T2	20090721	LSRV	-A02	DECISION OF REFUSAL	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A02 EFFECTIVE DATE : 20090721
KR20010088788 A	20010928	LSPB	+	published / reissued	
NO20010599 A	20010205	LSPB	+	published / reissued	
NO315709 B1	20031013	LSGT	+	granted /	

				extensions (spc, cpc, pte)		
NO315709 B1	20100301	LSLE	-MM1K	LAPSED BY NOT PAYING THE ANNUAL FEES		
RU2001103893 A	20030627	LSPB	+	published / reissued		
RU2207366 C2	20030627	LSGT	+	granted / extensions (spc, cpc, pte)		
RU2207366 C2	20100720	LSLE	-MM4A	THE PATENT IS INVALID DUE TO NON-PAYMENT OF FEES	EFFECTIVE DATE : 20090717	
TH40152 A	20000914	LSPB	+	published / reissued		
TW500796 B	20020901	LSGT	+	granted / extensions (spc, cpc, pte)		
TW500796 B	20021227	LSGT	+GD4A	ISSUE OF PATENT CERTIFICATE FOR GRANTED INVENTION PATENT		
TW500796 B	20100621	LSLE	-MM4A	ANNULMENT OR LAPSE OF PATENT DUE TO NON- PAYMENT OF FEES		
US5891325 A	19990406	LSGT	+	granted / extensions (spc, cpc, pte)		
US5891325 A	19990114	LSAS	AS	ASSIGNMENT	OWNER NAME : EXXON RESEARCH AND ENGINEERING CO., NEW JERSEY DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:BEARDEN, R., JR.; OLMSTEAD, W.N.; BLUM, S.C.; AND OTHERS; REEL/FRAME:009700/0475; SIGNING DATES FROM 19980728 TO 19980731	
US5891325 A	20020916	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4	
US5891325 A	20060926	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8	
US5891325 A	20110406	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES		
US5891325 A	20110524	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20110406	
WO0009631 A1	20000224	LSPB	+	published / reissued		
WO0009631 A1	20010124	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : CA REF DOCUMENT NUMBER : 2338623 KIND CODE OF REF DOCUMENT : A FORMAT OF REF DOCUMENT (F/P) : F	
WO0009631 A1	20010124	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2338623 COUNTRY OF REF DOCUMENT : CA	
WO0009631 A1	20010131	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2001/001166 COUNTRY OF REF DOCUMENT : MX	
WO0009631 A1	20010209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1020017001702 COUNTRY OF REF DOCUMENT : KR	
WO0009631 A1	20010209	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 49991/99 COUNTRY OF REF DOCUMENT : AU	
WO0009631 A1	20010308	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 1999934076 COUNTRY OF REF DOCUMENT : EP	
WO0009631 A1	20010627	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL	REF DOCUMENT NUMBER : 1999934076 COUNTRY OF REF DOCUMENT : EP	

				OFFICE	
WO0009631 A1	20010928	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020017001702 COUNTRY OF REF DOCUMENT : KR
WO0009631 A1	20021107	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 49991/99 COUNTRY OF REF DOCUMENT : AU
WO0009631 A1	20030402	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999934076 COUNTRY OF REF DOCUMENT : EP
WO0009631 A1	20040717	LSWD	-WWW	WIPO INFORMATION: WITHDRAWN IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1020017001702 COUNTRY OF REF DOCUMENT : KR

Title: Process to upgrade crude oils by destruction of naphthenic acids, removal of sulfur and removal of salts

Abstract: Source: US5985137A A method for upgrading an oil stream containing naphthenic acid and sulfur contaminants is described. In this method, an oil stream with naphthenic acid and sulfur contaminants is upgraded by the following steps. First, the oil stream is mixed with an alkaline earth metal oxide in an amount effective to convert substantially all of the naphthenic acid contaminants to non-acidic compounds and alkaline earth metal carbonate and also to convert substantially all of the sulfur contaminants to alkaline earth metal sulfide. Then, the mixture is heated under a pressure sufficient to prevent vaporization of the mixture to a temperature sufficient and for a time sufficient to react the naphthenic acid contaminants with the alkaline earth oxide to form the corresponding non-acidic compounds and alkaline earth carbonates. In the meantime, substantially all of the sulfur contaminants react with the alkaline earth oxide to form the alkaline earth sulfide. After the desired reaction is complete, the alkaline earth carbonate and the alkaline earth sulfide is separated from the oil stream. Upgraded oil is thus obtained.

Classifications:

International (IPC 8-9): C10G19/073 C10G29/16

C10G53/02 (Advanced/Invention);

C10G19/00 C10G29/00 (Core/Invention)

International (IPC 1-7): B01F23/90 B01J8/00 B01J8/02 B01J8/04

C09K3/00 C10G17/00 C10G19/00 C10G19/073 C10G29/16

C10G31/08 C10G53/02 F28D7/00 F28D8/04

CPC: C10G19/073 C10G29/16

European: C10G19/073 C10G29/16

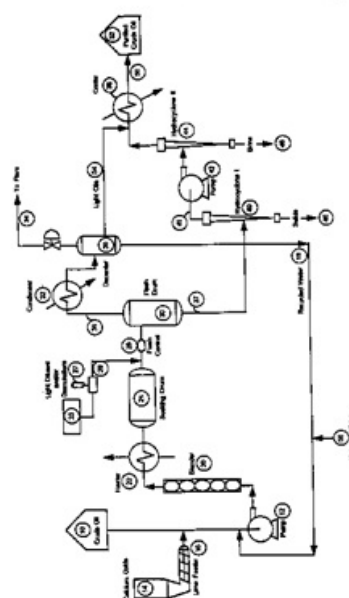
US: 208/226 208/229 208/263 208/283 208/284 208/286

PatBase - US5985137_R

U.S. Patent

Nov. 16, 1999

5,985,137



Family:

Publication number	Publication date	Application number	Application date
AU199925974 A1	19990915	AU19990025974	19990210
AU746498 B2	20020502	AU19990025974	19990210
CA2235691 AA	19990826	CA19982235691	19980423
CA2235691 C	20030708	CA19982235691	19980423
EP1060230 A1	20001220	EP19990936086	19990210
EP1060230 A4	20040908	EP19990936086	19990210
US5985137 A	19991116	US19980031343	19980226
WO9943766 A1	19990902	WO1999US02909	19990210

Priority:

CA19982235691 19980423 US19980031343 19980226 WO1999US02909 19990210

Probable Assignee: QUADRANT MANAGEMENT INC

Assignee(s): (std): UNIPURE CORP

Assignee(s): GILLESPIE THOMAS E ; OHSOL ERNEST O ; PINKERTON JOHN W ; QUADRANT MANAGEMENT INC

Inventor(s): (std): ERNEST O OHSOL ; GILLESPIE THOMAS E ; JOHN W PINKERTON ; OHSOL ERNEST O ; PINKERTON JOHN W ; THOMAS E GILLESPIE

Agent(s): GRIFFITH HACK; MCCARTHY TETRAULT LLP

Designated states: AM AT AU AZ BE BY CH CN CY DE DK ES FI FR GB GR IE IT JP KG KZ LI LU MC MD MX NL PT RU SE TJ TM

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
AU199925974 A1	19990915	LSPB	+	published / reissued	
AU746498 B2	20020502	LSGT	+	granted / extensions (spc, cpc, pte)	
AU746498 B2	20020829	LSGT	+FGA	LETTERS PATENT SEALED OR GRANTED	

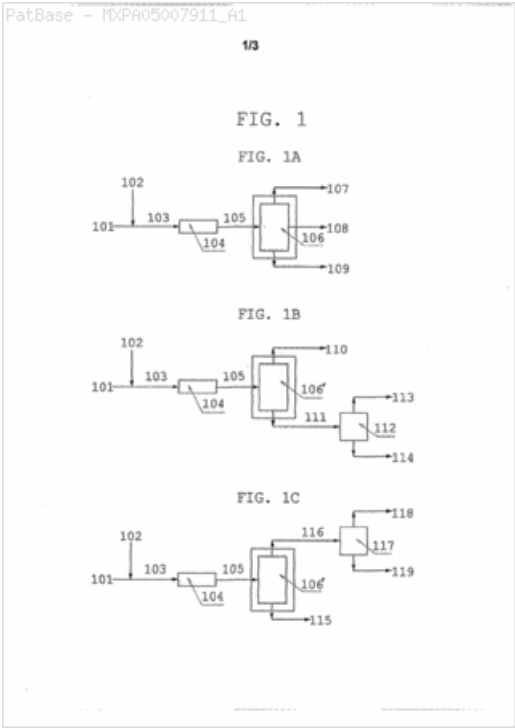
CA2235691 AA	19990826	LSPB	+	(STANDARD PATENT) published / reissued	
CA2235691 AA	19980423	LSES	+EEER	EXAMINATION REQUEST	
CA2235691 AA	20110426	LSLE	-MKLA	LAPSED	
CA2235691 AA	20110607	LSLE	-MKLA	LAPSED	EFFECTIVE DATE : 20110426
CA2235691 C	20030708	LSGT	+	granted / extensions (spc, cpc, pte)	
EP1060230 A1	20001220	LSPB	+	published / reissued	
EP1060230 A1	20001220	LSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20000920
EP1060230 A1	20010711	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : PINKERTON, JOHN, W.
EP1060230 A1	20010711	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : GILLESPIE, THOMAS, E.
EP1060230 A1	20010711	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : OHSOL, ERNEST, O.
EP1060230 A1	20040908	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20040728
EP1060230 A1	20040908	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : 7C 10G 29/16 A
EP1060230 A1	20040908	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : 7C 10G 19/073 B
EP1060230 A1	20040908	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : 7C 10G 31/08 B
EP1060230 A1	20070502	LSAS	RAP1	TRANSFER OF RIGHTS OF AN EP PUBLISHED APPLICATION	OWNER NAME : QUADRANT MANAGEMENT, INC.
EP1060230 A1	20080514	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20080415
EP1060230 A1	20110309	LSDW	-18D	DEEMED TO BE WITHDRAWN	EFFECTIVE DATE : 20100901
US5985137 A	19991116	LSGT	+	granted / extensions (spc, cpc, pte)	
US5985137 A	19980226	LSAS	AS	ASSIGNMENT	OWNER NAME : UNIPURE CORPORATION, TEXAS DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:OHSOL, GILLESPIE, PINKERTON; REEL/FRAME:009000/0412 EFFECTIVE DATE : 19980226
US5985137 A	20030509	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4
US5985137 A	20050824	LSAS	AS	ASSIGNMENT	OWNER NAME : QUADRANT MANAGEMENT INC., NEW YORK DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:UNIPURE CORPORATION; REEL/FRAME:016438/0940 EFFECTIVE DATE : 20050818
US5985137 A	20070515	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 8
US5985137 A	20111116	LSLE	-LAPS	LAPSE FOR FAILURE TO PAY MAINTENANCE FEES	
US5985137 A	20120103	LSLE	-FP	EXPIRED DUE TO FAILURE TO PAY MAINTENANCE FEE	EFFECTIVE DATE : 20111116
WO9943766 A1	19990902	LSPB	+	published / reissued	
WO9943766 A1	20000818	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL	REF DOCUMENT NUMBER : 1999936086 COUNTRY OF REF DOCUMENT : EP

				PHASE	
WO9943766 A1	20000824	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : 25974/99 COUNTRY OF REF DOCUMENT : AU
WO9943766 A1	20000825	LSNP	+WWE	WIPO INFORMATION: ENTRY INTO NATIONAL PHASE	REF DOCUMENT NUMBER : PA/A/2000/008363 COUNTRY OF REF DOCUMENT : MX
WO9943766 A1	20001220	LSPB	+WWP	WIPO INFORMATION: PUBLISHED IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 1999936086 COUNTRY OF REF DOCUMENT : EP
WO9943766 A1	20020815	LSGT	+WWG	WIPO INFORMATION: GRANT IN NATIONAL OFFICE	REF DOCUMENT NUMBER : 25974/99 COUNTRY OF REF DOCUMENT : AU

Title: PROCESS FOR REDUCING NAPHTHENIC ACIDITY IN OIL OR FRACTIONS THEREOF.

Abstract: DESCRIBED IS A PROCESS FOR REDUCING NAPHTHENIC ACIDITY IN PETROLEUM OIL OR ITS FRACTION COMPRISES: PROVIDING THE OIL SUPPLY (103)/ (203)/ (303) (0.1-99 WEIGHT PERCENT) IN WATER THAT IS EMULSIFIED/DISPERSED IN THE OIL, WHERE THE OIL CONTAIN SALTS AND NAPHTHENIC ACID CONTENT IS 0.1-10 MG THAT ARE MEASURED BY TOTAL ACID NUMBER (TAN) MEASUREMENT USING KOFI/G; SENDING THE OIL WITH THE WATER TOWARDS A DEVICE, WHICH IS EMITTING MICROWAVE RADIATION, WHERE THE OIL IS SUBJECTED UNDER THE MICROWAVE RADIATIONS IN LIQUID PHASE AT 50-350[DEG]C UNDER 0.7-4.5 MPA IN WHICH THE MICROWAVE RADIATIONS HAVE INFLUENCING DISTANCE OF 1 MM-30 CM OF THE OIL, IN THE PRESENCE OF SALTS, APPLIED TEMPERATURE AND THE HIGH PERMITTIVITY OF THE WATER DROPLETS INVOLVE ABSORPTION OF HEAT PREFERABLY HEATING WATER IN THE PLACE OF OIL, THE NAPHTHENIC COMPOUNDS INTERFACE BETWEEN THE DROPLETS, AND THE OIL ABSORB THE HEAT; DECOMPOSING CARBOXYLIC ACIDS (THAT IS RESPONSIBLE FOR

Classifications:
International (IPC 8-9): C10G32/00 (Advanced/Invention);
C10G32/00 (Core/Invention)



Family:

Publication number	Publication date	Application number	Application date
MXPA05007911 A1	20070125	MX2005PA07911	20050726

Priority:

MX2005PA07911 20050726

Probable Assignee: PETROLEO BRASILEIRO SA

Assignee(s): (std): PETROLEO BRASILEIRO SA

Assignee(s): PETROLEO BRASILEIRO S A PETROBRAS

Inventor(s): (std): CARDOSO MAURI JOSE BALDINI ; COUTINHO RAQUEL CAMPOS CAUBY ; CUNHA PATRICIA SUEMAR MELLO DU ; MOREIRA ELIZABETH MARQUES ; NAVES GABRIELA POLY ALT PEREIR ; PINHO ANDREA DE REZENDE

Inventor(s): RAQUEL CAMPOS CAUBY COUTINHO ; PATRICIA SUEMAR MELLO DUARTE DA CUNHA ; ELIZABETH MARQUES MOREIRA ; GABRIELA POLY ALT PEREIRA NAVES ; MAURI JOSE BALDINI CARDOSO ; ANDREA DE REZENDE PINHO

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
MXPA05007911 A1	20070125	LSPB	+	published / reissued	
MXPA05007911 A1	20090819	LSGT	+FG	GRANT OR REGISTRATION	

Title: PROCESS FOR TREATING HEAVY OILS

Abstract: Source: US2008217211A A process for treating a heavy oil which comprises subjecting a heavy oil to cavitation to reduce the viscosity of the heavy oil. The treated heavy oil, which has a reduced viscosity and specific gravity, thus is more pumpable and transportable, which facilitates further processing. The treated heavy oil also can be fractionated with less severity than untreated heavy oil.

Classifications:

International (IPC 8-9): C07C7/20 C10G15/08 C10G31/06

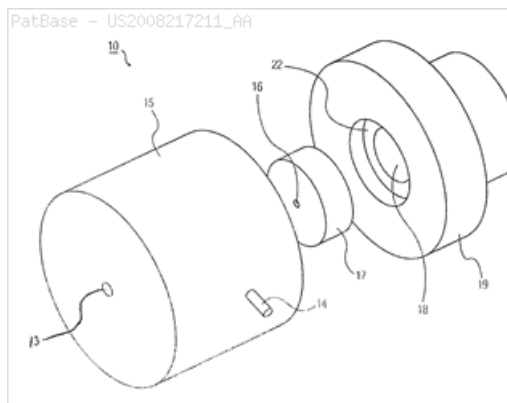
C10G71/00 C10G9/00 C10G9/34 (Advanced/Invention);

C10G31/00 C10G71/00 C10G9/00 (Core/Invention)

CPC: C10G2300/107 C10G2300/1077 C10G2300/4012 C07C7/20 C10G9/007 C10G15/08 C10G31/06 C10G2300/1011 C10G2300/302 C10G2300/4006 Y02P30/20 B01J19/008 B01J19/24 B01J19/2405 B01J2219/00087 B01J2219/00159

European: C10G15/08 C10G31/06 C10G9/00V

US: 208/106 208/125 208/46 208/85 585/13



Family:

Publication number	Publication date	Application number	Application date
CA2611251 AA	20080906	CA20072611251	20071120
CA2611251 C	20140121	CA20072611251	20071120
CA2814773 AA	20080906	CA20072814773	20071120
CA2814773 C	20140812	CA20072814773	20071120
CN101663378 A	20100303	CN200880007265	20080108
CN101663378 B	20140716	CN200880007265	20080108
CO6231048 A2	20101220	CO20090105298	20090925
ECSP099657 A	20091228	EC2009SP09657	20090928
EP2118240 A1	20091118	EP20080700491	20080108
EP2118240 A4	20121010	EP20080700491	20080108
MX2009009205 A1	20100212	MX20090009205	20080108
US2008217211 AA	20080911	US20070983842	20071113
US2013096354 AA	20130418	US20110336054	20111223
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Priority:

CA20072611251	20071120	CA20072814773	20071120	US20070905171P	20070306
US20070983842	20071113	US20110336054	20111223	CA20132611251	20130521
WO2008CA00010	20080108				

Probable Assignee: FRACTAL SYSTEMS INC

Assignee(s): (std): CHORNET ESTEBAN ; CHORNET MICHEL ; FRACTAL SYSTEMS INC

Assignee(s): FRACTAL SYSTEMS INC4070 PORTLAND BLVD.SHERBROOKEQ1J1L 2Y4CA ; CHORNET MICHEL2706 BEAUDRYSHERBROOKEQ1J1L 2N6CA ; CHORNET ESTEBAN470 MONTMAGNYSHERBROOKEQ1J1L 1H3CA

Inventor(s): (std): CHORNET ESTEBAN ; CHORNET MICHAEL ; CHORNET MICHEL ; ESTEBAN CHORNET ; MICHEL CHORNET

Inventor(s): CHORNET MICHEL2706 BEAUDRYSHERBROOKEQ1J1L 2N6CA ; CHORNET ESTEBAN470 MONTMAGNYSHERBROOKEQ1J1L 1H3CA ; MICHAEL CHORNET

Agent(s): SMART AND BIGGAR; ALVARO CORREA ORDONEZ; WALCHER ARMIN; RAYMOND J LILLIE ESQ C O CARELLA BYRNE BAIN GILFILLAN; ELLIOT M; RAYMOND J

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

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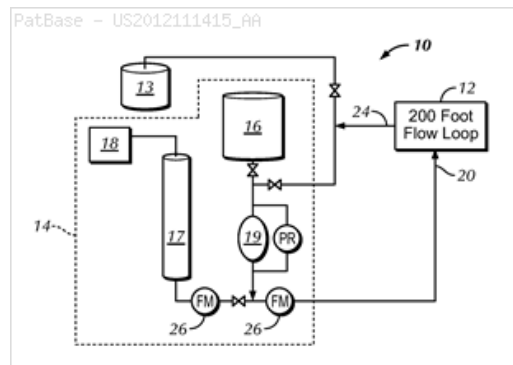
Patent	Date recorded	Event group	Code	Event	Details
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CA2611251 AA	20071123	LSES	+EEER	EXAMINATION REQUEST	
CA2611251 C	20140121	LSGT	+	granted / extensions (spc, cpc, pte)	
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CA2814773 AA	20130610	LSES	+EEER	EXAMINATION	EFFECTIVE DATE : 20130429

REQUEST					
CA2814773 C	20140812	LSGT	+	granted / extensions (spc, cpc, pte)	
CN101663378 A	20100303	LSPB	+	published / reissued	
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CN101663378 A	20140716	LSGT	+C14	GRANT OF PATENT OR UTILITY MODEL	
CN101663378 B	20140716	LSGT	+	granted / extensions (spc, cpc, pte)	
CO6231048 A2	20101220	LSPB	+	published / reissued	
CO6231048 A2	20130829	LSGT	+FG	APPLICATION GRANTED	
ECSP099657 A	20091228	LSPB	+	published / reissued	
EP2118240 A1	20091118	LSPB	+	published / reissued	
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EP2118240 A1	20100113	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : CHORNET, ESTEBAN
EP2118240 A1	20100113	LSRE	RIN1	INVENTOR (CORRECTION)	INVENTOR NAME : CHORNET, MICHEL
EP2118240 A1	20121010	LSES	+A4	DESPATCH OF SUPPLEMENTARY SEARCH REPORT	EFFECTIVE DATE : 20120906
EP2118240 A1	20121010	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : C10G 15/08 20060101ALI20120831BHEP
EP2118240 A1	20121010	LSRE	RIC1	CLASSIFICATION (CORRECTION)	IPC : C10G 31/06 20060101AFI20120831BHEP
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EP2118240 A1	20141015	LSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20140911
MX2009009205 A1	20100212	LSPB	+	published / reissued	
MX2009009205 A1	20121206	LSGT	+FG	GRANT OR REGISTRATION	
US2008217211 AA	20080911	LSPB	+	published / reissued	
US2008217211 AA	20080220	LSAS	AS	ASSIGNMENT	OWNER NAME : FRACTAL SYSTEMS, INC., CANADA DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:CHORNET, MICHEL; CHORNET, ESTEBAN; REEL/FRAME:020534/0274 EFFECTIVE DATE : 20080125
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US8871081 BB	20141028	LSGT	+	granted / extensions (spc, cpc, pte)	
WO08106765 A1	20080912	LSPB	+	published / reissued	

WO08106765 A1	20090908	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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Abstract: Source: US201211145A There is disclosed a system adapted to transport two fluids, comprising a nozzle comprising a first nozzle portion comprising the first fluid; and a second nozzle portion comprising the second fluid, wherein the second nozzle portion has a larger diameter than and is about the first nozzle portion; and a tubular fluidly connected to and downstream of the nozzle, the tubular comprising the first fluid in a core, and the second fluid about the core; the first fluid comprising a crude oil having a total acid number greater than 1, and the second fluid comprising a basic solution having a pH greater than 8.

US: 137/1 137/13 137/1P 137/605 138/114 138/114S 166/300
166/369



Publication number	Publication date	Application number	Application date
CA2766188 AA	20111220	CA20102766188	20100706
US2012111415 AA	20120510	US20100382328	20100706
US8857457 BB	20141014	US20100382328	20100706
WO11005744 A1	20110113	WO20100541042	20100706

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 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 TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Patent	Date recorded	Event group	Code	Event	Details
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US8857457 BB	20141014	LSGT	+	granted / extensions (spc, cpc, pte)	
WO11005744 A1	20110113	LSPB	+	published / reissued	
WO11005744 A1	20111220	LSNP	ENP	ENTRY INTO THE NATIONAL PHASE IN:	REF DOCUMENT NUMBER : 2766188 COUNTRY OF REF DOCUMENT : CA
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WO11005744 A1	20120105	LSNP	+WWE	WIPO	REF DOCUMENT NUMBER : 13382328

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WO11005744 A1	20120109	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
WO11005744 A1	20120801	LSNE	-122	EP: PCT APPLICATION NON-ENTRY IN EUROPEAN PHASE	REF DOCUMENT NUMBER : 10797707 COUNTRY OF REF DOCUMENT : EP KIND CODE OF REF DOCUMENT : A1

Title: CRUDE TREATMENT SYSTEM

Abstract: Source: US2011168523A [Task] To provide a crude treatment system capable of treating crude containing a comparatively large content of a corrosive material. [Means for Resolution] A primary distillation tower 11 fractionates first crude into a target fraction. A secondary distillation tower 21 which fractionates second crude having a corrosive material content greater than that of the first crude into a light fraction of which the content of the corrosive material is an amount not causing corrosion in the primary distillation tower 11 and a heavy fraction as the remainder thereof. Also, a light fraction supply line supplies the light fraction from the secondary distillation tower 21 to the primary distillation tower 11 so as to treat the light fraction in the primary distillation tower 11. Here, the secondary distillation tower 21 and the supply line for supplying second crude to the secondary distillation tower 21 are made from a material having corrosion resistance with respect to the corrosive material under circumstances in which the secondary distillation tower 21 and the supply line contact with the second crude and the heavy fraction.

Classifications:

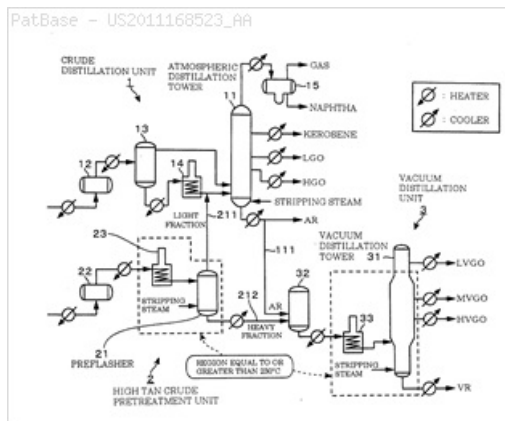
International (IPC 8-9): B01D3/14 B01D3/32 B01J19/02 C10G31/06 C10G7/00 C10G7/10 C10G75/00 C10G75/02 (Advanced/Invention)

International (IPC 1-7): C10G07/00 C10G07/06 C10G07/10

CPC: C10G75/00 C10G7/00 C10G7/10

European: C10G7/00 C10G7/10 C10G75/00

US: 196/100 196/114 196/133 196/46 196/46P 202/154 202/267.1

**Family:**

Publication number	Publication date	Application number	Application date
EP2354211 A1	20110810	EP20100192160	20101123
JP2011144225 A2	20110728	JP20100004350	20100112
JP5421794 B2	20140219	JP20100004350	20100112
MY153072 A	20141231	MY20100005516	20101123
US2011168523 AA	20110714	US20100927887	20101129
US8771474 BB	20140708	US20100927887	20101129
VN15756 A1	20160926	VN20100003498	20101223

Priority:

JP20100004350 20100112

Probable Assignee: JGC CORP

Assignee(s): (std): JGC CORP ; SAWAI NAOAKI

Inventor(s): (std): SAWAI NAOAKI

Inventor(s): NAOAKI SAWAI

Agent(s): TBK; JORDAN AND HAMBURG 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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
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EP2354211 A1	20120321	LSSES	+17P	REQUEST FOR EXAMINATION FILED	EFFECTIVE DATE : 20120209
EP2354211 A1	20121024	LSSES	+17Q	FIRST EXAMINATION REPORT	EFFECTIVE DATE : 20120820
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JP2011144225 A2	20131128	LSFE	+A61	FIRST PAYMENT OF ANNUAL FEES (DURING GRANT PROCEDURE)	DESCRIPTION : JAPANESE INTERMEDIATE CODE: A61 EFFECTIVE DATE : 20131122
JP5421794 B2	20140219	LSGT	+	granted / extensions (spc, cpc, pte)	
JP5421794 B2	20161025	LSFE	+R250	RECEIPT OF ANNUAL	DESCRIPTION : JAPANESE

				FEES	INTERMEDIATE CODE: R250
MY153072 A	20141231	LSGT	+	granted / extensions (spc, cpc, pte)	
US2011168523 AA	20110714	LSPB	+	published / reissued	
US2011168523 AA	20101129	LSAS	AS	ASSIGNMENT	OWNER NAME : JGC CORPORATION, JAPAN DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR:SAWAI, NAOAKI; REEL/FRAME:025465/0384 EFFECTIVE DATE : 20101111
US8771474 BB	20140708	LSGT	+	granted / extensions (spc, cpc, pte)	
VN15756 A1	20160926	LSPB	+	published / reissued	

Title: CRUDE PRODUCT COMPOSITION

Abstract: Source: US2011210043A A crude product composition is provided. The crude product composition contains from 0.001 weight percent to 5 weight percent residue. The crude product composition contains hydrocarbons having a boiling point in the ranges of at most 204 degrees centigrade, from 204 degrees centigrade to 300 degrees centigrade, from 300 degrees centigrade to 400 degrees centigrade, and from 400 degrees centigrade to 538 degrees centigrade The hydrocarbons boiling in a range of at most 204 degrees centigrade comprise paraffins, where the paraffins comprise iso-paraffins and n-paraffins, and the weight ratio of iso-paraffins to n-paraffins is at most 1.4.

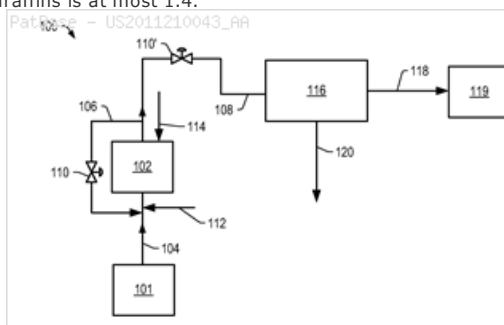
Classifications:

International (IPC 8-9): B01J27/02 C01B3/26 C10G45/00 C10G47/00 C10G47/06 C10G65/02 C10G65/04 C10L1/00 C10L1/04 C10M101/02 (Advanced/Invention)

CPC: C10G45/00 C10G65/04 C10L1/04 Y02P20/142

European: C10G45/00 C10G65/04 C10L1/04 Y02E60/12

US: 208/14 208/14P 208/15 208/16 208/17 44/300 585/14

**Family:**

Publication number	Publication date	Application number	Application date
US2011210043 AA	20110901	US20110087084	20110414
US8394254 BB	20130312	US20110087084	20110414

Priority:

US20030531506P 20031219 US20040014004 20041216 US20040618814P 20041014
US20110087084 20110414

Probable Assignee: SHELL OIL CO

Assignee(s): (std): MILAM STANLEY NEMEC ; SHELL OIL CO ; WELLINGTON SCOTT LEE

Assignee(s): SHELL OIL COMPANY

Inventor(s): (std): MILAM STANLEY NEMEC ; WELLINGTON SCOTT LEE

Legal status (INPADOC)

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Patent	Date recorded	Event group	Code	Event	Details
US2011210043 AA	20110901	LSPB	+	published / reissued	
US8394254 BB	20130312	LSGT	+	granted / extensions (spc, cpc, pte)	
US8394254 BB	20160901	LSFE	+FPAY	FEE PAYMENT	YEAR OF FEE PAYMENT : 4

Title: SYSTEMS AND METHODS FOR REFINING CORROSIVE CRUDES

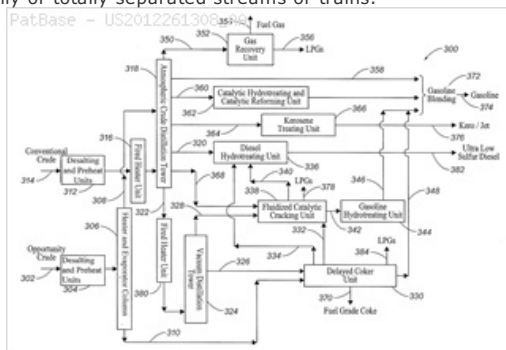
Abstract: Source: US2012261308A Systems and methods for refining conventional crude and heavy, corrosive, contaminant-laden carbonaceous crude (Opportunity Crude) in partially or totally separated streams or trains.

Classifications:

International (IPC 8-9): C10G57/00 C10G7/00 C10G7/02 C10G7/06 C10G9/00 (Advanced/Invention)

CPC: C10G2300/1033 C10G2300/1077 C10G2300/301 C10G2400/02 C10G2400/04 C10G2400/06 C10G2400/08 C10G7/02 C10G7/06 C10G9/005

US: 196/106 196/98 208/106 208/347 208/85 208/92



Family:

Publication number	Publication date	Application number	Application date
US2012261308 AA	20121018	US20120447957	20120416
US2015014120 AA	20150115	US20140501516	20140930
WO12142580 A1	20121018	WO2012US33781	20120416

Priority:

US20110475519P 20110414 US20120447957 20120416 US20140501516 20140930

Probable Assignee: BECHTEL HYDROCARBON TECHNOLOGY SOLUTIONS INC

Assignee(s): (std): BECHTEL HYDROCARBON TECHNOLOGY SOLUTIONS INC ; ENG ODETTE ; KLEIN BENJAMIN

Inventor(s): (std): KLEIN BENJAMIN ; ENG ODETTE

Agent(s): JENSEN WILLIAM P

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 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

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Patent	Date recorded	Event group	Code	Event	Details
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US2012261308 AA	20120705	LSAS	AS	ASSIGNMENT	OWNER NAME : BECHTEL HYDROCARBON TECHNOLOGY SOLUTIONS, INC., TE DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLEIN, BENJAMIN; ENG, ODETTE; REEL/FRAME:028495/0122 EFFECTIVE DATE : 20110425
US2015014120 AA	20150115	LSPB	+	published / reissued	
US2015014120 AA	20160701	LSAS	AS	ASSIGNMENT	OWNER NAME : BECHTEL HYDROCARBON TECHNOLOGY SOLUTIONS, INC, TEX DESCRIPTION : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNORS:KLEIN, BENJAMIN; ENG, ODETTE; REEL/FRAME:039064/0581 EFFECTIVE DATE : 20110425
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WO12142580 A1	20131014	LSNE	NENP	NON-ENTRY INTO THE NATIONAL PHASE IN:	REF COUNTRY CODE : DE
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