

Search history

Search IC=(F23D1 OR F23D11) (Results 47977)

1:

Search 1 and nozzle* (Results 16927)

2:

Search 1 and (nozzle* near air) (Results 5508)

3:

Search 3 and (multi-tubular or (multi near (tub* or pipe*))) (Results 43)

4:

Search 4 and PD<20160511 (Results 38)

5:

Search [SP]: method to enhance burner efficiency and burnera burner barrel includes a concentric multi-tubular structure, formed by pipes and at the end downstream the burner barrel is provided a burner tip in which various nozzles to inject fuel and primary air are perforated. the burner tip includes at least one series of nozzles intended to inject an external air flow a second series of nozzles intended to inject tangential air flow and a third series of apertures intended to inject the fuel and transport air. the ends downstream of the first and second burner pipes are joined and define a continuous external annular surface of the burner tip. the nozzles are arranged within an inscribed area, being the dimension of the nozzles limited by a rate between the open area a of the nozzles and the complementary closed area a. (Results 0)

Search [SP]: 1. a burner, of the type used in rotary kilns for cement production, and comprising a concentric multi-tubular structure, formed by pipes and between which respective cylindrical feeding channels are defined, wherein a burner tip is provided at an end downstream a burner barrel in which various fuel injection and primary air nozzles are perforated, whereas at an end upstream the burner barrel are arranged connection means with fuel and primary air sources, and wherein said burner tip comprises: a first series of nozzles for injecting an external air flow a second series of nozzles, with an annular arc section, and intended to inject tangential air flow a third series of apertures, with an annular arc section, and intended to inject fuel and transport air, wherein: the ends downstream the first and second pipes of the burner barrel are joined together to define a continuous external annular surface of the burner tip, wherein between the first pipe the second pipe is defined an external primary air flow feeding channelsaid nozzles of circular cross-section being arranged within an inscribed area which is externally bounded by a radius external circumference which is tangent to a radially outermost point of each one of the nozzles, and internally bounded by a radius inner circumference which is tangent to a radially innermost point of each one of the nozzles, wherein, in said inscribed area, the rate between the open area ao of the nozzles and the closed area ac is limited to: $0.12ao/ac0.27$ wherein the open area ao corresponds to the sum of the areas of each one of the nozzles multiplied by the number of nozzles of the burner head and the closed area ac corresponds to the inscribed area minus the open area.2. the burner according to claim 1, wherein the rate between the nozzles open area ao and the closed area ac is limited to: $0.19ao/ac0.25$.3. the burner according to claim 1, wherein the burner comprises an expansion joint arranged in the region between the end upstream the second pipe and a flange.4. the burner according to claim 1, wherein the burner comprises an expansion joint arranged in the region between the end upstream the first pipe and a flange. (Results 0)

Search 4 and (area near nozzle*) (Results 6)

8:

Search FT=(burner and kilns and nozzle*) (Results 1512)

9:

Search 9 and concentric* (Results 292)

10:

Search 10 and (multi-tubular or (multi near (tub* or pipe*))) (Results 29)

11:

Title: PREPARATION OF A QUARTZ GLASS BODY

Abstract: The invention relates to a process for the preparation of a quartz glass body comprising the process steps (501) Providing a silicon dioxide granulate; (502) Making a first glass melt out of the silicon dioxide granulate; (503) Making a glass product out of at least one part of the glass melt; (504) Reducing the size of the glass product to obtain a quartz glass grain; (505) Making a further glass melt from the quartz glass grain and (506) Making a quartz glass body out of at least one part of the further glass melt. Furthermore, the invention relates to a quartz glass body obtainable by this process.

Classifications:

International (IPC 8-9): C03B17/04 C03B19/01 C03B19/09 C03B19/10 C03B20/00 C03C3/06 (Advanced/Invention)

CPC: C03B17/04 C03B19/01 C03B19/09 C03B19/1005 C03B2201/03 C03B2201/04 C03C1/026 C03C3/06

PatBase - WO18229151_A1

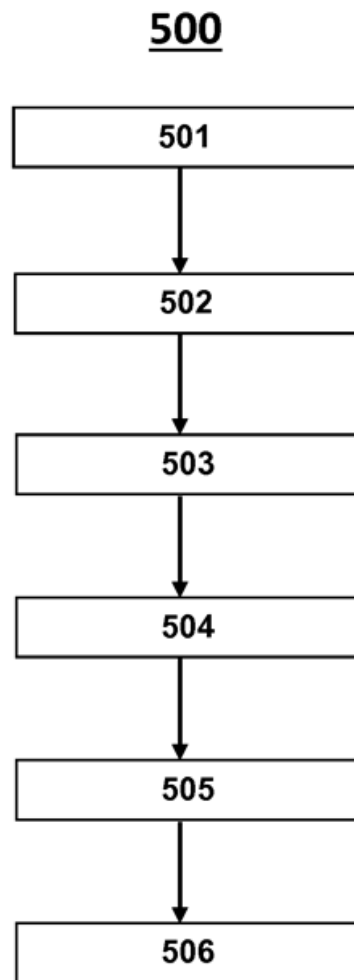


Fig. 5

Family:

Publication number	Publication date	Application number	Application date
■ TW201904893 A	20190201	TW20180120348	20180613
■ WO18229151 A1	20181220	WO2018EP65706	20180613

Priority:

EP20170176042 20170614

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): GROMANN BORIS ; GOEBEL MARCUS CONSTANTIN ; NIELSEN NILS CHRISTIAN ; HUENERMANN MICHAEL ; WISSEL STOLL KATHRIN ; GÖBEL MARCUS CONSTANTIN ; HUNERMANN MICHAEL

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB

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 DJ 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 JO JP KE KG KH KM KN KP KR KW 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 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: DISTILLATION REACTOR MODULE

Abstract: The distillation reactor consists of a reactor apparatus with corresponding method of upstream distilling and purification of carbon based liquid or liquidized streams for use as fuels, lubricating oils and or gaseous energy and electricity production. The distillation reactor consolidates the atmospheric and vacuum distillation processes along with desalting, defueling, deasphalting, fractionation, thin/wiped film evaporation and Hydro finishing into an advanced high velocity, high volume single reactor system. Carbon based feed streams include either a single stream or preferably, a combined stream of liquefied coal slurries, crude oils, spent oils, Pyrolytic oils and or peat or other plant carbon derived liquids, vapors, mists or gases. The method further consists of controlling the mix ratio, flow velocity, sequential fractionation and filtration technology and processing atmospheres of the carbon feeds with the reactor apparatus. The combined apparatus and method allows for a refinery to consistently produce a finished barrel of oil well below traditional costs and at a higher efficiency than current art and prior art.

Classifications:

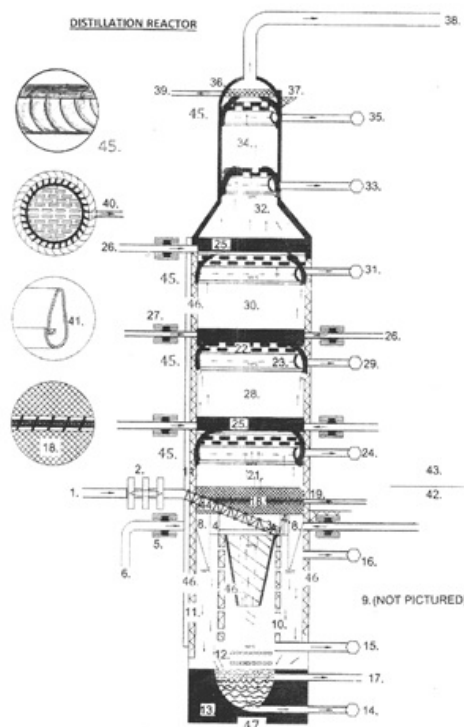
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H02K7/09 (Advanced/Invention)

CPC: Y02E30/40 G21D1/00 B01J19/0093 B01J2219/00864 B01J2219/00867 B01J2219/00871 C01G21/02 C01B3/32 C01B13/02 C01B17/02 C01B2203/0205 C01B2203/0283 C01B2203/043 C01B2203/0445 C01B2203/0475 C10G1/02 C10G1/10 C10G31/08 C10G75/04 Y02P20/129 B09B5/00 Y02P30/446 Y02E30/30 B01D3/10 B01D3/006 B01D3/06 B01D39/2027 F03G7/00 B01D3/009 C10G7/06 G21C1/00 G21D5/00 C10G7/00 C10G57/00 C10G7/003 C10L9/10 C10J3/72 C10G1/00 C01B17/027 C01B17/74 B01J6/008 B01J2/00 B01J19/24 B01D53/48 B01D53/62 C22B9/00 F27B17/00 C02F1/00 C22B7/00 B29B17/00 B22F3/10 B22F9/00 C22B21/00 C22B15/00 C22B13/00 H01M8/00 H01M10/54 H02K55/02 H02K7/09 B02C23/00 B03C1/00 C10L2290/544 C10J2300/093 C10J2300/0946 B22F2009/001 C01B17/48 C10G11/18 C10G33/00 C10G45/00 Y02E20/16 Y02E20/18 Y02W10/33 Y02W10/37 Y02W30/84 C01B32/05 C01B32/20 C01B32/50 Y02P10/143

US: 196/46 202/232 209/213 210/251 241/301 241/65 266/160 310/90.5 422/129 422/170 422/187 422/198 422/255 423/522 423/567.1 429/49 505/163 505/166 60/698

PatBase - US2016030856_AA

**Family:**

Publication number	Publication date	Application number	Application date
CA2907677 AA	20150921	CA20142907677	20140318
EP2969180 A2	20160120	EP20140762668	20140318
EP2969180 A4	20161005	EP20140762668	20140318
IL242590 A0	20160131	IL20140242590	20140318
JP2016512165 T2	20160425	JP20160502609T	20140318
US2016030856 AA	20160204	US20140776734	20140318
US2016032904 AA	20160204	US20140776736	20140318
US2016045841 AA	20160218	US20140776732	20140515
WO14146129 A2	20140918	WO2014US31118	20140318
WO14146129 A3	20150129	WO2014US31118	20140318
WO14153570 A2	20140925	WO2014US38290	20140515
WO14153570 A3	20150219	WO2014US38290	20140515
WO14153570 A9	20150806	WO2014US38290	20140515
WO14200605 A2	20141218	WO2014US31116	20140318
WO14200605 A3	20150326	WO2014US31116	20140318
WO14200605 A4	20150430	WO2014US31116	20140318
WO14200605 A9	20150205	WO2014US31116	20140318

Priority:

US20130800209P 20130315	US20130801170P 20130315	US20130801491P 20130315
US20140776734 20140318	US20140776736 20140318	WO2014US31118 20140318
WO2014US31116 20140318	US20140776732 20140515	WO2014US38290 20140515

Probable Assignee: TRANSTAR GROUP LLC

Assignee(s): (std): BRADLEY RANDALL ; KALPAN ALLEN ; KAPLAN ALLEN ; TRANSTAR GROUP LTD

Assignee(s): TRANSTAR GROUP LLC

Inventor(s): (std): KAPLAN ALLEN ; BRADLEY RANDALL ; KALPAN ALLEN

Agent(s): ADE AND CO INC; NELLIGAN OBRIEN PAYNE LLP; PERRONACE ANDREA; HERSHKOVITZ ABRAHAM ET AL; HERSHKOTIZ ABRAHAM ET AL

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
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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: LOW NOX PARTICULATE FUEL **BURNER**

Abstract: A pulverized fuel **burner** having reduced NOx emissions comprises a first precessing jet **nozzle** surrounded by a second **nozzle**. The second **nozzle** feeds pulverized fuel into a precessing jet of air formed by the first **nozzle**.

Classifications:

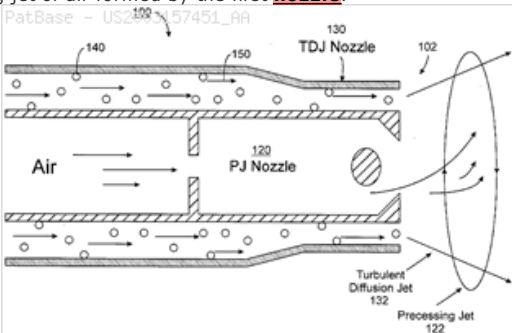
International (ipc 8-9): F23D1/02 (Advanced/Invention)

International (ipc 1-7): F23C7/00 F23D1/02

CPC: F23D1/02 F23D2900/01001 F23D2900/14482

European: F23D1/02 R23D900/01001 R23D900/14482

US: 431/187 431/187P



Family:

Publication number	Publication date	Application number	Application date
AU2002346728 AA	20030623	AU20020346728	20021213
US2003157451 AA	20030821	US20020319796	20021213
WO03050449 A1	20030619	WO2002US40006	20021213

Priority:

US20010341396P 20011213 US20020319796 20021213 WO2002US40006 20021213

Probable Assignee: CEMEX INC

Assignee(s): (std): CEMEX INC

Assignee(s): MCCABE MICHAEL I

Inventor(s): (std): MCCABE MICHAEL I ; MCCABE MICHAEL IGNATIUS ; SCHNARRE RICHARD GEORGE

Inventor(s): MICHAEL IGNATIUS MCCABE ; RICHARD GEORGE SCHNARRE

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 LK LR LS LT LU LV MA MC MD MG MK ML MN MR MW MX MZ NE NL NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW

Title: Variable flame burner configuration

Abstract: PCT No. PCT/AU93/00476 Sec. 371 Date May 15, 1995 Sec. 102(e) Date May 15, 1995 PCT Filed Sep. 17, 1993 PCT Pub. No. WO94/07086 PCT Pub. Date Mar. 31, 1994A burner configuration includes at least one processing jet nozzle and at least one further burner nozzle having mixing characteristics different from the processing jet nozzle. A means is preferably provided to control the proportions of fuel flow to the nozzles. The nozzles of the set are in sufficient proximity that a combined flame of the burner configuration can be determined or controlled by setting or varying the relative flows of fuel to the nozzle of the set.

Classifications:

International (IPC 8-9): F23D14/04 F23D14/20 F23D14/48 F23D14/62 F23D14/84 F23D23/00 F27B7/34 F27D99/00 (Advanced/Invention);

F23D14/04 F23D14/46 F23D23/00 (Core/Invention)

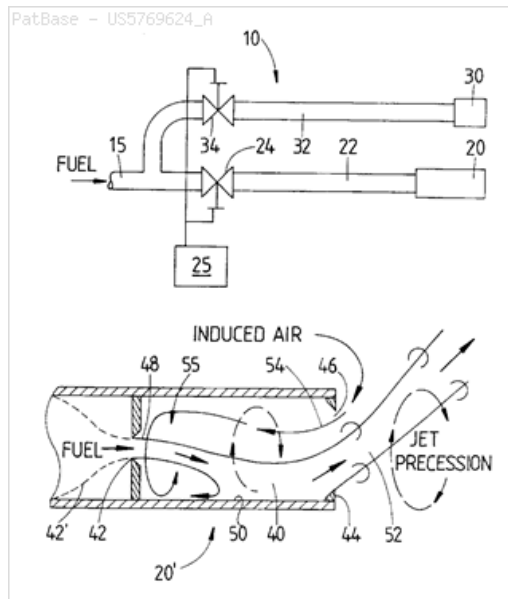
International (IPC 1-7): C04B7/44 F23D1/00 F23D14/04 F23D14/62 F23D14/84 F23D23/00

CPC: F23D14/20 F23D14/48 F23D23/00 F23D2900/14003

F23D2900/14482 F27B7/34 F27D99/0033

European: F23D14/20 F23D14/48 F23D23/00 F27B7/34 F27D99/00A5 R23D900/14003 R23D900/14482

US: 431/187 431/278 431/284 431/8



Family:

Publication number	Publication date	Application number	Application date
AU199348107 A1	19940412	AU19930048107	19930917
AU673686 B2	19961121	AU19930048107	19930917
EP0662208 A1	19950712	EP19930920602	19930917
EP0662208 A4	19971022	EP19930920602	19930917
MX9305747 A1	19940531	MX19930005747	19930920
NZ255966 A	19951026	NZ19930255966	19930917
TH11751 B	20020124	TH19931001668	19930917
TH14270 A	19940622	TH19931001668	19930917
US5769624 A	19980623	US19950403706	19950515
WO9407086 A1	19940331	WO1993AU00476	19930917

Priority:

AU1992PL04827 19920918 AU19930048107 19930917 WO1993AU00476 19930917

Probable Assignee: LUMINIS PTY LTD

Assignee(s): (std): LUMINIS PTY LTD ; LUXTON RUSSELL ESTCOURT ; NATHAN GRAHAM JERROLD

Assignee(s): LUMINIS PTY LIMITED

Inventor(s): (std): LUXTON RUSSELL ESTCOURT ; NATHAN GRAHAM JERROLD

Inventor(s): RUSSELL ESTCOURT LUXTON ; GRAHAM JERROLD NATHAN

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

Designated states: AT AU BB BE BF BG BJ BR BY CA CF CG CH CI CM CZ DE DK ES FI FR GA GB GN GR HU IE IT JP KP KR KZ LI LK LU LV MC MG ML MN MR MW NE NL NO NZ PL PT RO RU SD SE SK SN TD TG UA US UZ VN

Abstract: Method and apparatus for drying wet bio-solids by utilizing waste heat from a clinker cooler in a cement making process.

International (IPC 8-9): C04B11/036 C04B2/10 C04B7/44 C04B7/45
C10L5/00 C10L5/40 C10L5/44 F26B3/00 F27B7/20

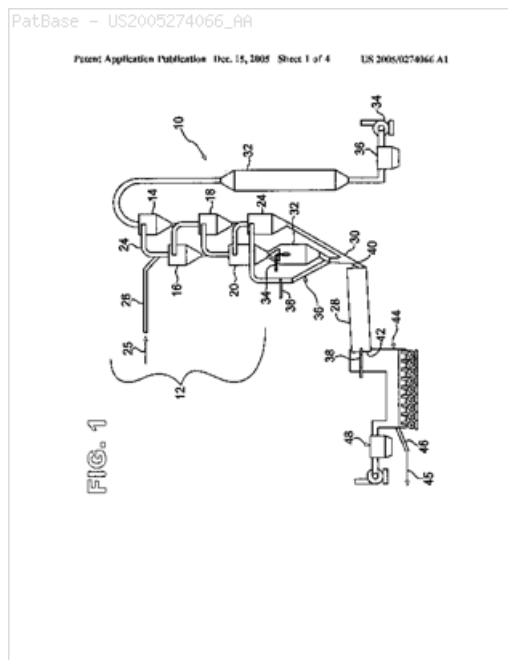
F27D17/00 (Advanced/Invention);
C04B11/00 C04B2/00 C04B7/00 C10L5/00 C10L5/40
F26B3/00 (Core/Invention)

International (IPC 1-7): C04B11/036 C04B2/10 C04B7/44 C04B7/45
C10L5/00 C10L5/40 F27D17/00

CPC: Y02P10/283 F27D17/00 C04B7/4407 F27B7/2025 C10L5/44
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C10L5/48 C10L2250/06 C10L2290/02 C10L2290/06 C10L2290/08
European: C04B7/44B C10L5/44 F27B7/20B1 F27D17/00 Y02E50/10
Y02E50/30

US: 106/745 34/201 34/468 34/469 432/66 44/606 44/606P



Publication number	Publication date	Application number	Application date
CA2570278 AA	20061212	CA20052570278	20050613
CA2570278 C	201110301	CA20052570278	20050613
US2005274066 AA	20051215	US20040866999	20040614
US2005274067 AA	20051215	US20040958756	20041005
US2005274068 AA	20051215	US20040958850	20041005
US2005274293 AA	20051215	US20050146642	20050607
US7434332 BB	20081014	US20040958756	20041005
US7461466 BB	20081209	US20040866999	20040614
WO05123885 A1	20051229	WO2005US20577	20050613

US20040866999 20040614	US20040958756 20041005	US20040958850 20041005
US20050146642 20050607	WQ2005US20577 20050613	

Assignee(s): (std): ALESI SHANE ; LEHIGH CEMENT CO ; LEHIGH CEMENT COMPANY ; MORTON EDWARD L ; NOBIS RAINER ; SZABO LASZLO

Inventor(s): (std): ALESI SHANE ; MORTON EDWARD L ; NOBIS RAINER ; SZABO LASZLO

Agent(s): BLAKE CASSELS AND GRAYDON LLP; RATNERPRESTIA

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 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 UI UZ VC VZ VN YU ZA ZM ZW

Title: POLYSILOCARB MATERIALS AND METHODS

Abstract: Silicon (Si) based materials and methods of making those materials. More specifically, methods and materials having silicon, oxygen and carbon that form filled and unfilled plastic materials and filled and unfilled ceramics.

Classifications:

International (IPC 8-9): A61K8/25 A61K8/89 A61Q3/02 B01D39/20

B01D53/22 B01D67/00 B01D71/04 B01J2/02 B01J2/04 B01J2/06
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H01L29/66 (Advanced/Invention);
C01B33/113 C08G77/00 C08G77/12 C08G77/20 C09K8/80 C30B29/36
F41H5/02 (Advanced/Non-invention)

CPC: C09K2208/00 E21B43/01 B01D53/228 B01D67/0067 B01D71/04
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US: 1/1 106/197.01 106/203.3 106/217.7 106/285 106/287.13 106/31.68 106/31.69 106/475 106/482 106/491 106/504 117/101
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Family:

Publication number	Publication date	Application number	Application date
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PatBase - US2014274658_AA

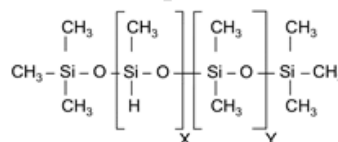


FIG. 1

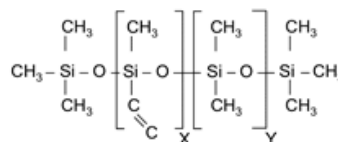


FIG. 2

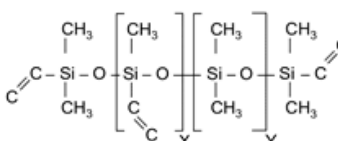


FIG. 3

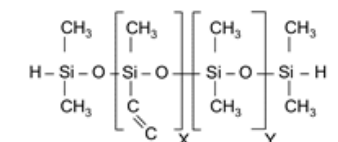


FIG. 4

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Probable Assignee: PALIDUS INC

Assignee(s): (std): BRICCO BRUCE A ; DUKES DOUGLAS ; KEITH GEORGE ; HOPKINS ANDREW ; ELY JOHN ; DYK THOMAS ; HOPKINS ANDREW R ; DUKES DOUGLAS M ; DIWANJI ASHISH P ; MUELLER MICHAEL ; LAND MARK ; MELIOR TECHNOLOGY INC ; MELIOR INNOVATIONS INC ; MOELLER TIMOTHY ; LAND MARK S ; MOELLER TIM C ; MUELLER MICHAEL J ; MOLNAR MICHAEL ; MOELLER TIMOTHY C ; MELIOR TECH INC ; BENAC BRIAN ; BENAC BRIAN L ; PALIDUS INC ; MELIOR INNOVATIONS ; SHERWOOD WALTER ; WILDING JR OLIVER ; SHERWOOD WALTER J

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Agent(s): SPRUSON AND FERGUSON; CASSAN MACLEAN; CASSAN MACLEAN IP AGENCY INC; BUNGARTZ CHRISTOPHERSEN PARTNERSCHAFT MBB PATENTANWALTE; BUNGARTZ CHRISTOPHERSEN PARTNERSCHAFT MBB PATENTANWALTE; ITOH SHIGERU; YURIDICHESKAYA GORODISSKIJ I PARTNER Y OOO FA; STEPTOE AND JOHNSON LLP; GLEN P; BELVIS LAW LLC; BELVIS GLEN P; BELVIS GLEN P ET AL

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 DJ 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 JO JP KE KG KH KM KN KP KR KW 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: REFUSE INCINERATION COMBUSTION CHAMBER - HAS CASING BASEPLATE WITH CENTRAL AND PERIPHERAL OPENINGS FOR OXIDATION GAS UNDER PRESSURE

Abstract: The incineration combustion chamber has a hollow casing with top outlet (12) and closed at the bottom by a baseplate (14) with a central opening through which oxidation gas is introduced under pressure, also a series of peripheral ones for this gas (16). Heat transfer particles (32) inside the casing (12) fluidise the gas delivered, and a mechanism (28) is included for loading the refuse into it. The baseplate can be conical, enclosed in a chamber (18) to which the gas is delivered, and with a pipe (24) connected to its central opening. A smaller pipe (19) is mounted inside this one, to form an intervening annular space through which any ash etc. is discharged.

Classifications:

International (IPC 8-9): B01J8/18 B01J8/24 B01J8/44 F23G5/16

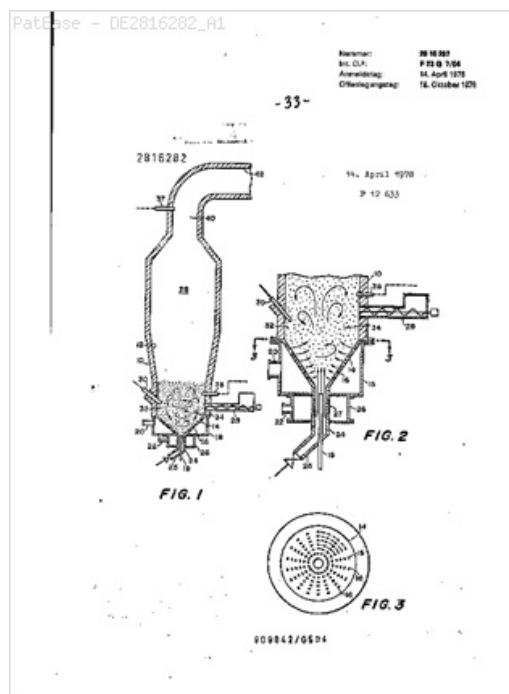
F23G5/30 F23M5/08 (Advanced/Invention);

B01J8/18 B01J8/24 F23G5/16 F23G5/30 F23M5/00 (Core/Invention)

International (IPC 1-7): F23C9/00 F23G7/00 F23G7/04

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European: B01J8/18G B01J8/24 B01J8/44 F23G5/16 F23G5/30 F23M5/08A L01J208/00F2 L01J208/00F4 R23G203/50



Family:

Publication number	Publication date	Application number	Application date
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DE2857527 C2	19821118	DE19782857527	19780414

Priority:

DE19782816282 19780414 DE19782857527 19780414

Probable Assignee: BABCOCK HITACHI KK

Assignee(s): (std): BABCOCK HITACHI KK

Assignee(s): BABCOCK HITACHI K K ; BABCOCK HITACHI K K ; BABCOCK HITACHI K K TOKYO JP

Inventor(s): (std): ISHIKAWA TOMIHISA ; KAJIMOTO NOBORU ; KAWADA SHIN ; KURE HIROSHIMA ; MASUMOTO YOJI ; UEMURA TOSHIO ; WATANABE YOSHIKI

Inventor(s): KURE HIROSHIMA KAWASA TOKYO JP ; KAWADA SHIN TOKYO JP

Title: METHODS OF COMBUSTION OF POWDERED FUELS AND POWDERED FUEL DISPERSIONS

Abstract: Methods of combustion include metering a substantially explosible powder into an oxidizing gas using a positive displacement powder dispersion device to suspend the powder in the gas and directing the powder in the gas to form a controlled stream of a moving explosible powder dispersion. In some embodiments, the method further includes igniting the dispersion with an ignition source to produce a stationary deflagrating combustion wave and sustaining combustion by continuing to meter the powder into the gas. In other embodiments, the method further includes adjusting a **nozzle** velocity of the dispersion to reflect properties of the dispersion to create a sustainable flame and igniting the dispersion to produce a stationary deflagrating wave of the dispersion. In other embodiments, the method further includes igniting the dispersion in a combustion area to produce a stationary deflagrating wave such that a conductive heat transfer from combustion brings the powder to combustion temperature.

Classifications:

International (IPC 8-9): A01G13/06 B22F1/00 C06B39/00 C06B43/00 C06B45/02 C06B47/10 C10L5/00 C10L5/44 C10L9/12 F02B13/00 F02B45/00 F02B45/02 F02B9/00 F02D19/04 F02D19/08 F02D45/00 F02M21/02 F02M21/08 F02M21/12 F03G3/00 F23B30/02 F23C1/10 F23C1/12 F23C5/08 F23C6/02 F23C6/04 F23C7/00 F23C99/00 F23D1/00 F23D1/02 F23D14/58 F23D14/60 F23D14/62 F23G5/033 F23G5/44 F23G5/46 F23G5/50 F23G7/10 F23K3/00 F23L9/06 F23M3/04 F23N1/00 F23N1/02 F23N5/00 F23R5/00 F27B17/00 (Advanced/Invention); C10L5/36 C10L5/44 F02M21/12 F02M29/02 F03G3/00 F03G7/00 F23R7/00 (Advanced/Non-invention);

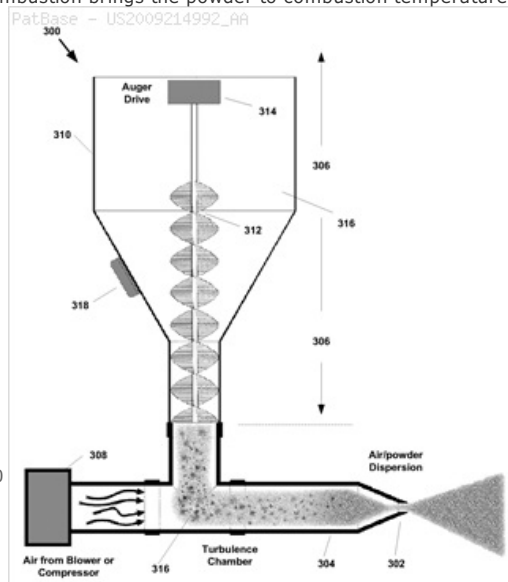
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EP2094970 B1	20170111	EP20070867481	20071116
EP2279378 A2	20110202	EP20090729630	20090407
IN03448CN2009 A	20160831	IN2009CN03448	20090617
JP2010510469 T2	20100402	JP20090537216T	20071116
KR101547583 B1	20150827	KR20107024902	20090407
KR101590447 B1	20160218	KR20097012614	20071116
KR20090105916 A	20091007	KR20097012614	20071116
KR20110091437 A	20110811	KR20107024902	20090407
KR20150052879 A	20150514	KR20157010766	20071116
US2009214992 AA	20090827	US20090464416	20090512
US2009223467 AA	20090910	US20090466873	20090515
US2009223612 AA	20090910	US20090464449	20090512
US2009274985 AA	20091105	US20090419946	20090407
US2010055629 AA	20100304	US20090466899	20090515
US2015285494 AA	20151008	US20150688263	20150416
US8100095 BB	20120124	US20090466873	20090515
US9016216 BB	20150428	US20090464416	20090512
US9039407 BB	20150526	US20090419946	20090407
US9057522 BB	20150616	US20090466899	20090515

US9958158 BB	20180501	US20150688263	20150416
WO08063549 A2	20080529	WO2007US24044	20071116
WO08063549 A3	20090430	WO2007US24044	20071116
WO08063549 A8	20090813	WO2007US24044	20071116
WO09126660 A2	20091015	WO2009US39820	20090407
WO09126660 A3	20100107	WO2009US39820	20090407

Priority:

US20060859779P	20061117	US20060868408P	20061204	US20070993221P	20070910
WO2007US24044	20071116	US20080042996P	20080407	US20080042996	20080407
US20080074244	20080620	US20080074244P	20080620	US20090419946	20090407
WO2009US39820	20090407	US20090464416	20090512	US20090464449	20090512
US20090466873	20090515	US20090466899	20090515	US20150688263	20150416

Probable Assignee: SUMMERHILL BIOMASS SYSTEMS INC

Assignee(s): (std): JAMES MCKNIGHT ; KEN WHITE ; MCKNIGHT JAMES ; MCKNIGHT JAMES K ; WHITE KEN W ; MCKNIGHT JAMES T ; THORNE ROBERT E ; SUMMERHILL BIOMASS SYSTEMS INC ; WHITE KEN ; BACORN EDWARD

Assignee(s): EDWARD BACORN

Inventor(s): (std): WHITE KEN W ; MCKNIGHT JAMES T ; BACORN EDWARD ; MCKNIGHT JAMES K ; THORNE ROBERT E ; EDWARD BACORN

Inventor(s): MCKNIGHT JAMES J ; JAMES K MCKNIGHT ; JAMES T MCKNIGHT ; KEN W WHITE

Agent(s): ADAMS PLUCK; CULLENS PATENT AND TRADE MARK ATTORNEYS; SPRUSON AND FERGUSON; CULLENS PTY LTD; GOWLING LAFLEUR HENDERSON LLP; GOWLING WLG CANADA LLP; AVENTUM IP LAW LLP; GARAVELLI PAOLO; JONES GRAHAM HENRY; SAEKI NORIO; BROWN AND MICHAELS PC 400 M AND T BANK BUILDING; EDWARDS ANGELL PALMER AND DODGE LLP; BROWN AND MICHAELS PC; MARBURY LAW GROUP PLLC; LAURO PETER C; BROWN MICHAEL 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 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 ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

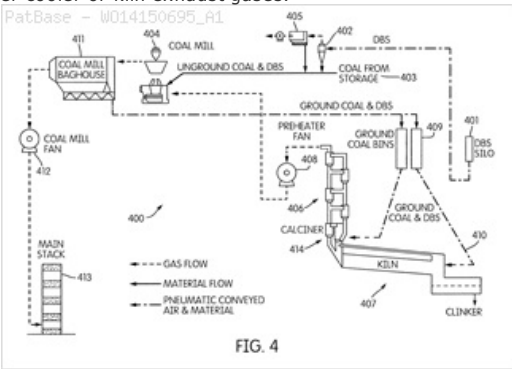
Title: USING KILN WASTE HEAT TO REDUCE MOISTURE CONTENT OF CLASS A BIOSOLIDS AND OTHER BIOMASS FUELS

Abstract: A method and apparatus for preparing an improved fuel or fuel additive for a cement-making process by drying Class A biosolids or other dried biomass materials utilizing waste heat from clinker cooler or kiln exhaust gases.

Classifications:

International (IPC 8-9): C10B53/08 C10L5/02 (Advanced/Invention)

CPC: C04B7/4407 C10L5/04 C10L5/10 C10L5/442 Y02E50/30 C04B7/475 C04B2290/20 Y02P20/129 Y02P40/123 Y02P40/128



Family:

Publication number	Publication date	Application number	Application date
WO14150695 A1	20140925	WO2014US24007	20140312

Priority:

US20130782454P 20130314

Probable Assignee: LEHIGH CEMENT CO LLC

Assignee(s): (std): LEHIGH CEMENT CO LLC

Inventor(s): (std): LUCKIN JEREMY ; MARTIN KENT D ; PIVAR NICHOLAS H ; WHITTAKER BRIAN M

Agent(s): SPADT JONATHAN H ET AL

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 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

Abstract: A burner which prevents obstruction by combustion products has a circularly concentric multi-tube construction of three or more tubes, comprising a central tube which emits a liquid containing a chemical element that forms a solid oxide by combustion or flame hydrolysis, a first outer tube disposed concentrically outside the central tube for emitting a combustion-supporting gas and/or a non-combustible gas, a second outer tube disposed concentrically outside the first outer tube for emitting a combustion-supporting gas and/or a non-combustible gas, and optionally, a passage disposed outside the second outer tube for supplying a combustion-supporting gas and/or a non-combustible gas. The liquid emitted from the central tube is atomized and burned by the combustion-supporting gases and/or non-combustible gases supplied from the outer tubes and the optional passage disposed outside thereof. The flame thereby generated is covered by the combustion-supporting gases and/or non-combustible gases supplied from the outer tubes and the optional passage disposed outside thereof.

A cross-sectional diagram of a catheter assembly. The assembly consists of an outer sheath (4) and an inner tube (1). The inner tube has a proximal end (2) and a distal end (3). A dashed circle highlights the proximal end of the inner tube. A side port (8) is located on the outer sheath. The distal end of the inner tube is connected to a multi-lumen connector (5). The outer sheath is labeled 4, the inner tube is labeled 1, the proximal end of the inner tube is labeled 2, the distal end of the inner tube is labeled 3, the side port is labeled 8, the multi-lumen connector is labeled 5, the proximal end of the outer sheath is labeled 7, and the distal end of the outer sheath is labeled 6.

Publication number	Publication date	Application number	Application date
DE69943956 D1	20120308	DE19996043956	19990406
EP1087177 A1	20010328	EP19990912120	19990406
EP1087177 A4	20020821	EP19990912120	19990406
EP1087177 B1	20111228	EP19990912120	19990406
US2004216494 AA	20041104	US20040857880	20040602
WO0060286 A1	20001012	WO1999JP01821	19990406

EP19990912120 19990406 WO1999JP01821 19990406 US20000646536 20000919
US20040857880 20040602

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

Title: METHOD TO ENHANCE **BURNER** EFFICIENCY AND **BURNER**

Abstract: A **burner** barrel includes a **concentric multi-tubular** structure, formed by **pipes** and at the end downstream the **burner** barrel is provided a **burner** tip in which various **nozzles** to inject fuel and primary air are perforated. The **burner** tip includes at least one series of **nozzles** intended to inject an external air flow; a second series of **nozzles** intended to inject tangential air flow; and a third series of apertures intended to inject the fuel and transport air. The ends downstream of the first and second **burner** pipes are joined and define a continuous external annular surface of the **burner** tip. The **nozzles** are arranged within an inscribed area, being the dimension of the **nozzles** limited by a rate between the open area A of the **nozzles** and the complementary closed area A.

Classifications:

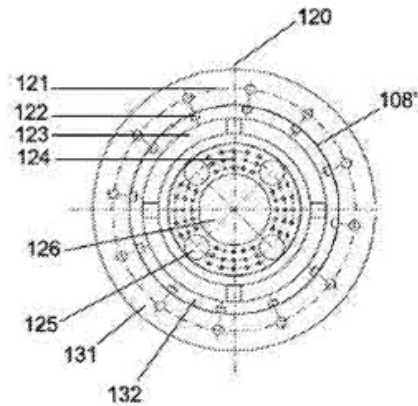
International (IPC 8-9): F23D1/00 F23D1/04 F23D11/40 F23D5/00 F23D99/00 F23N1/02 F27B7/10 (Advanced/Invention)

International (IPC 1-7): F23D1/00 F23D1/04 F23D11/40 F23D5/00 F23N1/02

CPC: F23D1/005 F27B7/10 F23C6/045 F23C7/002 F23C2201/20 F23C2900/06041 F23C2900/06043 F23D1/00 F23D1/02 F23D1/04 F23D2900/01001

US: 1/1

PatBase - US2019113225_AA



Family:

Publication number	Publication date	Application number	Application date
BR102016010608 A2	20171205	BR20161010608	20160511
BR102017009706 A2	20181204	BR20171009706	20170509
BR102017009733 A2	20181204	BR20171009733	20170509
CO20180010550 A2	20181010	CO20180010550	20181001
EP3455554 A1	20190320	EP20170795204	20170510
MX2018012055 A1	20190110	MX20180012055	20170510
US2019113225 AA	20190418	US20170090369	20170510
WO17193191 A1	20171116	WO2017BR50111	20170510

Priority:

BR20161006087 20160511 BR20161010608 20160511 BR20171009706 20170509
BR20171009733 20170509 BR20171097064 20170509 WO2017BR50111 20170510

Probable Assignee: DYNAMIS ENGENHARIA E COMERCIO LTDA

Assignee(s): (std): DYNAMIS ENGENHARIA E COMERCIO LTDA

Inventor(s): (std): DE SOUSA BORGES RODRIGO ; MARTINS FERREIRA GUILHERME ; VON RAINER FABIANI LUIS FILIPE ; DE PINHO LUIZ FELIPE ; GUILHERME MARTINS FERREIRA ; LUIS FILIPE VON RAINER FABIANI ; LUIZ FELIPE DE PINHO ; RODRIGO DE SOUSA BORGES ; DE PINHO LUIZFELIPE

Agent(s): ISERN PATENTES Y MARCAS SL; ARIBONI FABBRI E SCHMIDT SOCIEDADE DE ADVOGADOS

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 DJ 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 KH KM KN KP KR KW 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

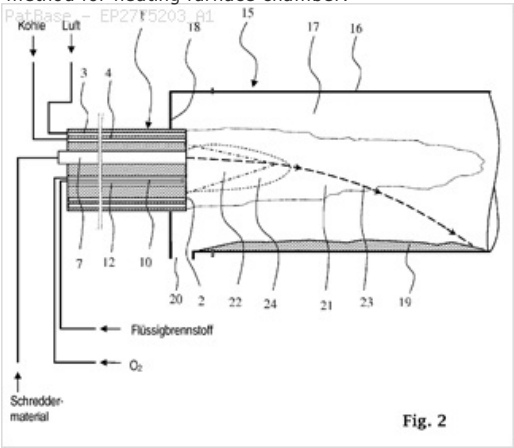
Title: MULTI-FUEL **BURNER** AND METHOD FOR HEATING AN OVEN BRULEUR MULTI-COMBUSTIBLES ET PROCEDE DE CHAUFFAGE D'UN FOUR

Abstract: The multi-substance **burner** (1) has a primary fuel feeder (4), primary oxidant feeder (3) and a secondary fuel feeder (7-10) that are accommodated into a furnace chamber. A feeder (12) is provided for supplying second oxidant in the region of secondary fuel feeder (10). An atomizing unit is provided for atomizing the secondary fuel. The secondary fuel feeder is arranged radially inward into the feeder (12). An independent claim is included for a method for heating furnace chamber.

Classifications:

International (IPC 8-9): F23D1/04 F23D17/00 (Advanced/Invention); F23D1/00 (Core/Invention)

CPC: F23D2204/30 F23D1/04 F23G5/008 F23G5/20 F23G7/12 F23G2209/28 F23L7/007 Y02E20/344



Family:

Publication number	Publication date	Application number	Application date
DE102013004016 A1	20140911	DE201310004016	20130308
DE502014004384 D1	20170810	DE201450004384T	20140304
EP2775203 A1	20140910	EP20140157701	20140304
EP2775203 B1	20170628	EP20140157701	20140304
ES2640058 T3	20171031	ES20140157701T	20140304
HR20171452 T1	20171117	HR20170001452	20170927
HU034444 T2	20180228	HU20140157701T	20140304
RS56363 B1	20171229	RS20170000952	20140304
SI2775203 T1	20171130	SI20140030397T	20140304

Priority:

DE201310004016 20130308 EP20140157701 20140304

Probable Assignee: MESSER AUSTRIA GMBH

Assignee(s): (std): MESSER AUSTRIA GMBH

Inventor(s): (std): DEMUTH MARTIN

Agent(s): MUENZEL JOACHIM R; LEHMANN MARIA ISABEL

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

Title: PREPARATION OF A QUARTZ GLASS BODY IN A HANGING METAL SHEET CRUCIBLE

Abstract: One aspect relates to a process for the provision of a quartz glass body, including providing a silicon dioxide granulate, making a glass melt from the silicon dioxide granulate in an oven and making a quartz glass body from at least part of the glass melt. The oven includes a hanging metal sheet crucible. One aspect also relates to a quartz glass body which is obtainable by this process. One aspect further relates to a light guide, an illuminant and a formed body which are obtainable by processing the quartz glass body further.

Classifications:

International (IPC 8-9): C01B33/12 C03B17/04 C03B19/10 C03B19/14 C03B20/00 C03B37/012 C03B5/06 C03C3/06

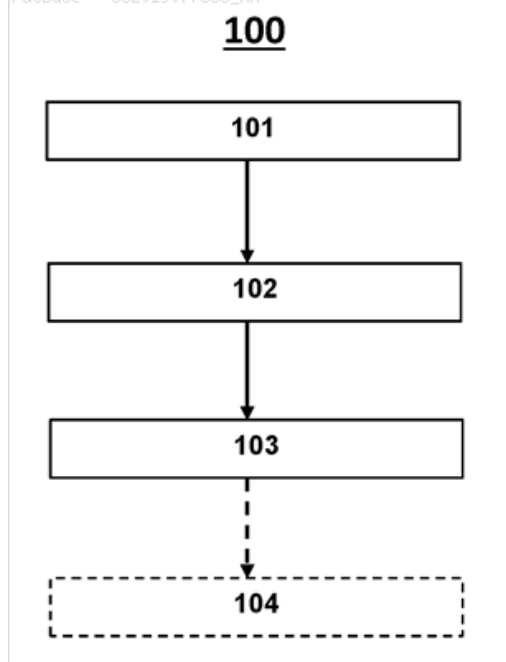
G02B6/02 (Advanced/Invention);

C03B17/04 C03B19/10 C03B5/06 (Advanced/Non-invention)

CPC: C03B20/00 C03B37/01211 C03C3/06 C03B2201/02 C03C2203/10 C03C1/022 C03C12/00 C03C2201/02 C03C2201/11 C03C2201/26 C03C2201/32 C03C2201/54 C03C2203/40 C03C2203/44 C03C2203/50 C03B19/14 C01B33/12 C03B2201/32 C03B2201/20 C01P2006/14 C03B2201/40 C03B2207/81 C03B2207/90 C01P2004/51 C01P2006/10 C01P2006/11 C03B2201/04 C03B5/06 C03B17/04 C03B19/106

US: 1/1

PatBase - US2019077688_AA



Family:

Publication number	Publication date	Application number	Application date
■ CN108698889 A	20181023	CN201680082115	20161216
■ EP3390299 A1	20181024	EP20160815832	20161216
■ JP2019506349 T2	20190307	JP20180531073T	20161216
■ KR20180095620 A	20180827	KR20187020268	20161216
■ TW201731780 A	20170916	TW20160141756	20161216
■ US2019077688 AA	20190314	US20160062290	20161216
■ WO17103112 A1	20170622	WO2016EP81435	20161216
■ WO17103112 A9	20171123	WO2016EP81435	20161216

Priority:

EP20150201117 20151218 WO2016EP81435 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): LEHMANN WALTER ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; OTTER MATTHIAS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; HUENERMANN MICHAEL ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: PREPARATION OF A QUARTZ GLASS BODY IN A HANGING SINTER CRUCIBLE

Abstract: The invention relates to a process for the preparation of a quartz glass body comprising the process steps i.) Providing a silicon dioxide granulate, ii.) Making a glass melt from the silicon dioxide granulate in an oven, and iii.) Making a quartz glass body from at least a part of the glass melt, wherein the oven comprises a hanging sinter crucible. The invention also relates to a quartz glass body which is obtainable by this process. The invention further relates to a light guide, an illuminant and a formed body which are each obtainable by further processing the quartz glass body.

Classifications:

International (IPC 8-9): C03B17/04 C03B19/06 C03B19/10 C03B20/00 C03B37/012 C03B37/014 C03B5/06 C03C1/02 C03C3/06

F27B14/10 (Advanced/Invention);

C03B17/04 C03B19/10 C03B5/06 (Advanced/Non-invention)

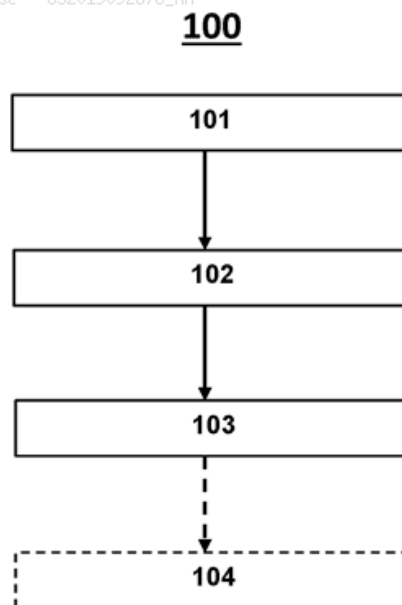
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C03C3/06 C03C2201/11 C03C2201/26 C03C2201/32 C03C2203/10

US: 1/1

PatBase - US2019092676_AA



Family:

Publication number	Publication date	Application number	Application date
■ CN108698895 A	20181023	CN201680082182	20161216
■ EP3390306 A2	20181024	EP20160822145	20161216
■ JP2019503962 T2	20190214	JP20180531077T	20161216
■ KR20180095621 A	20180827	KR20187020269	20161216
■ TW201736288 A	20171016	TW20160141731	20161216
■ US2019092676 AA	20190328	US20160062382	20161216
■ WO17103114 A2	20170622	WO2016EP81437	20161216
■ WO17103114 A3	20171123	WO2016EP81437	20161216

Priority:

EP20150201122 20151218 WO2016EP81437 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): LEHMANN WALTER ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; OTTER MATTHIAS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; HUENERMANN MICHAEL ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: PREPARATION OF A QUARTZ GLASS BODY IN A MELTING CRUCIBLE OF REFRACTORY METAL

Abstract: The invention relates to a process for preparing a quartz glass body comprising the process steps i.) Providing a silicon dioxide granulate, ii.) Making a glass melt from the silicon dioxide granulate in a melting crucible, and iii.) Making a quartz glass body from at least a part of the glass melt, wherein the melting crucible is comprised in an oven and is made of at least one material comprising tungsten or molybdenum or a combination thereof. The invention further relates to a quartz glass body which can be obtained by this process. Further, the invention relates to a light guide, an illuminant and a formed body, each of which can be obtained by processing the quartz glass body further.

Classifications:

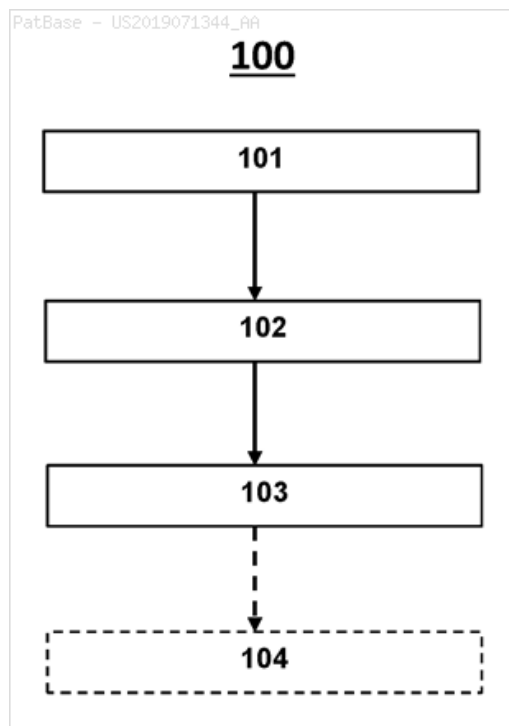
International (IPC 8-9): C03B17/04 C03B20/00 C03B37/012 C03B5/06 C03C3/06 F27D7/02 (Advanced/Invention);

C03B17/04 C03B5/06 (Advanced/Non-invention)

CPC: C03B2201/07 C03B2201/23 C03B2207/42 C03B2201/04 C03B37/01211 C03B5/06 C03B17/04 C03B20/00 C03C3/06

C03C2201/02 C03C2203/10

US: 1/1



Family:

Publication number	Publication date	Application number	Application date
■ CN108698893 A	20181023	CN201680082160	20161216
■ EP3390302 A2	20181024	EP20160816655	20161216
■ JP2019502638 T2	20190131	JP20180531100T	20161216
■ KR20180095622 A	20180827	KR20187020271	20161216
■ TW201731779 A	20170916	TW20160141733	20161216
■ US2019071344 AA	20190307	US20160062658	20161216
■ WO17103115 A2	20170622	WO2016EP81438	20161216
■ WO17103115 A3	20170810	WO2016EP81438	20161216
■ WO17103115 A9	20170928	WO2016EP81438	20161216

Priority:

EP20150201137 20151218 WO2016EP81438 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): LEHMANN WALTER ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; OTTER MATTHIAS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; HUENERMANN MICHAEL ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: PREPARATION OF QUARTZ GLASS BODIES WITH DEW POINT MONITORING IN THE MELTING OVEN

Abstract: The invention relates to a process for the preparation of a quartz glass body comprising the process steps i.) Providing silicon dioxide particles, ii.) Making a glass melt out of the silicon dioxide particles in an oven and iii.) Making a quartz glass body out of at least part of the glass melt, wherein the oven has a gas outlet through which gas is removed from the oven, wherein the dew point of the gas on exiting the oven through the gas outlet is less than 0 degrees centigrade The invention further relates to a quartz glass body which is obtainable by this process. The invention further relates to a light guide, an illuminant and a formed body, which are each obtainable by further processing of the quartz glass body.

Classifications:

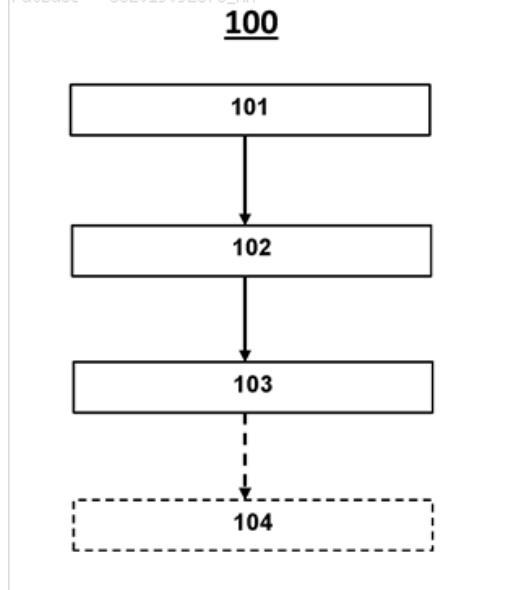
International (IPC 8-9): C03B17/04 C03B19/06 C03B19/10 C03B20/00 C03B37/012 C03B37/02 C03B5/06 C03C1/02 C03C3/06 F27D21/00 F27D7/02 G02B6/00 (Advanced/Invention);

C03B17/04 C03B19/10 C03B5/06 (Advanced/Non-invention)

CPC: C03B5/06 C03B17/04 C03B19/108 C03B37/01211 C03B2201/07 C03C2201/23 C03C2201/50 C03C2203/40 C03B19/066 C03C1/022 C03B2201/04 C03C2204/04 C03C2203/10 C03B20/00 C03B2201/23 C03C3/06 C03C2201/11 C03C2201/26 C03C2201/32

US: 1/1

PatBase - US2019092675_AA



Family:

Publication number	Publication date	Application number	Application date
■ CN108698890 A	20181023	CN201680082118	20161216
■ EP3390303 A2	20181024	EP20160816656	20161216
■ JP2019502644 T2	20190131	JP20180531565T	20161216
■ KR20180095616 A	20180827	KR20187020258	20161216
■ TW201738188 A	20171101	TW20160141690	20161216
■ US2019092675 AA	20190328	US20160062348	20161216
■ WO17103123 A2	20170622	WO2016EP81448	20161216
■ WO17103123 A3	20170824	WO2016EP81448	20161216

Priority:

EP20150201147 20151218 WO2016EP81448 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): WHIPPEY NIGEL ROBERT ; GROMANN BORIS ; SOEHN MATTHIAS ; SOHN MATTHIAS

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: INCREASE IN SILICON CONTENT IN THE PREPARATION OF QUARTZ GLASS

Abstract: A quartz glass body and a process for the preparation of a quartz glass body is disclosed. In one aspect, the process includes providing a silicon dioxide granulate from a pyrogenic silicon dioxide powder, making a glass melt out of the silicon dioxide granulate and making a quartz glass body out of at least part of the glass melt. In at least one process a silicon component different from silicon dioxide is added. One aspect further relates to a quartz glass body which is obtainable by this process. A light guide, an illuminant and a formed body, are each obtainable by further processing of the quartz glass body.

Classifications:

International (IPC 8-9): B01J2/04 C03B17/04 C03B19/10 C03B20/00 C03B37/012 C03B37/02 C03B37/027 C03B5/08 C03C3/06 G02B6/02 H01J61/30 (Advanced/Invention);

C03B17/04 C03B19/10 (Advanced/Non-invention)

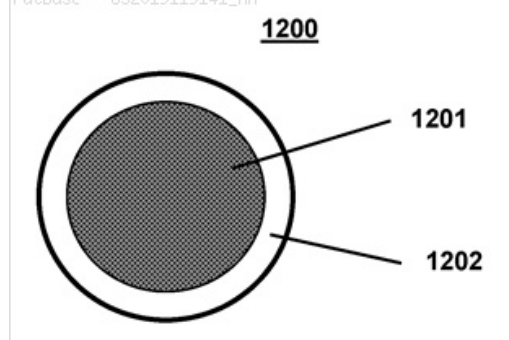
CPC: C03B19/106 C03B2201/58 C03C3/06 C03B20/00 C03B5/08

B01J2/04 C03B37/027 C03B37/01282 H01J61/302 G02B6/02042

C03B17/04 C03B19/108 C03B19/1095 C03B37/01211

US: 1/1

PatBase - US2019119141_AA

**Family:**

Publication number	Publication date	Application number	Application date
■ CN108698885 A	20181023	CN201680082011	20161216
■ EP3390293 A2	20181024	EP20160809874	20161216
■ JP2019502641 T2	20190131	JP20180531382T	20161216
■ KR20180095619 A	20180827	KR20187020261	20161216
■ TW201736291 A	20171016	TW20160141903	20161216
■ US2019119141 AA	20190425	US20160062387	20161216
■ WO17103124 A2	20170622	WO2016EP81449	20161216
■ WO17103124 A3	20170928	WO2016EP81449	20161216

Priority:

EP20150201149 20151218 WO2016EP81449 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): GOEBEL MARCUS CONSTANTIN ; WHIPPEY NIGEL ROBERT ; GROMANN BORIS ; SCHEICH GERRIT ; GOBEL MARCUS CONSTANTIN

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: SPRAY GRANULATION OF SILICON DIOXIDE IN THE PREPARATION OF QUARTZ GLASS

Abstract: One aspect relates to a process for the preparation of a quartz glass body. The process includes providing a silicon dioxide granulate, making a glass melt out of the silicon dioxide granulate, and making a quartz glass body out of at least a part of the glass melt. In one aspect, providing a silicon dioxide granulate includes providing of a silicon dioxide powder and processing of the powder to obtain a silicon dioxide granulate including the spray drying of a silicon dioxide slurry using a **nozzle**. The **nozzle** has a contact surface to the slurry made of glass, plastic or a combination thereof. Furthermore, one aspect relates to a quartz glass body obtainable by this process. Furthermore, one aspect relates to the preparation of a silicon dioxide granulate. One aspect also relates to a light guide, an illuminant, and a formed body, made from processing of the quartz glass body.

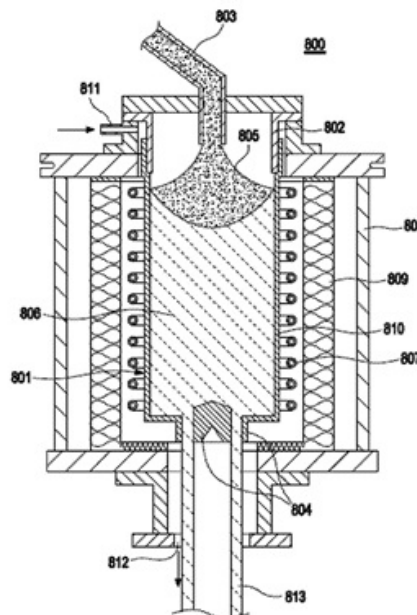
Classifications:

International (IPC 8-9): C01B33/18 C03B17/04 C03B19/10 C03B20/00 C03B37/012 C03C3/06 F26B3/12 G02B6/02 (Advanced/Invention)

CPC: C03B19/106 C03B37/0128 C03C3/06 F26B3/12 C03C1/026 C03C2201/11 C03C2201/23 C03C2201/26 C03C2201/32 C03C2201/50 C03C2203/10 C03B20/00 C01B33/18 G02B6/0238 C03B2201/23 C03B2201/32 C01P2006/14 C01P2004/61 C01P2006/10 C01P2006/11 C01P2006/12 C01P2006/80 C01P2006/60 C01P2004/51 C03B17/04 C03B19/108

US: 1/1

PatBase - US2019077691_AA

**Family:**

Publication number	Publication date	Application number	Application date
■ CN108698883 A	20181023	CN201680081966	20161216
■ EP3390304 A1	20181024	EP20160819513	20161216
■ TW201733925 A	20171001	TW20160141902	20161216
■ US2019077691 AA	20190314	US20160062366	20161216
■ WO17103125 A1	20170622	WO2016EP81451	20161216

Priority:

EP20150201148 20151218 WO2016EP81451 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): WITTRIN MIRKO ; WILDE MARKUS ; OTTER MATTHIAS

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB

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 DJ 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 KH KM KN KP KR KW 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: PREPARATION AND POST-TREATMENT OF A QUARTZ GLASS BODY

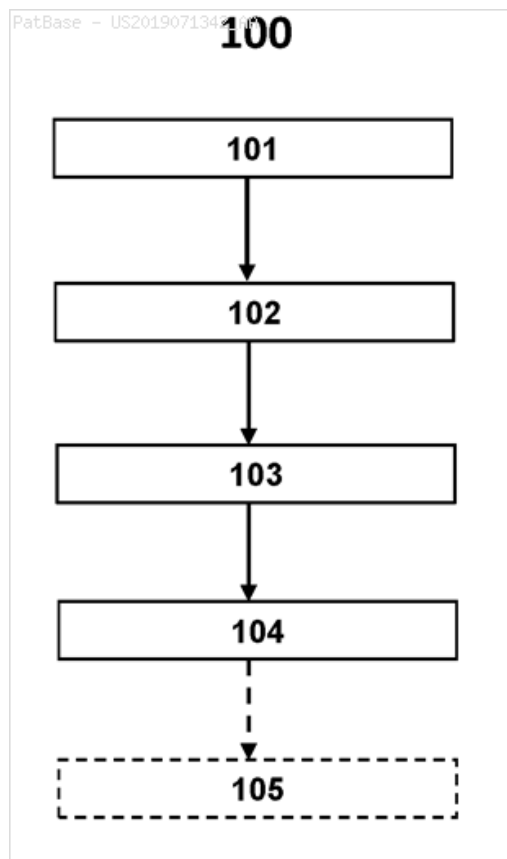
Abstract: One aspect relates to a process for preparing a quartz glass body, including providing a silicon dioxide granulate, making a glass melt from the silicon dioxide granulate in a melting crucible, making a quartz glass body from at least a part of the glass melt, and treating the quartz glass body with at least one procedure selected from the group consisting of chemical, thermal or mechanical treatment to obtain a treated quartz glass body. One aspect also relates to a quartz glass body which is obtainable by this process. One aspect also concerns a light guide, an illuminant and a formed body each obtainable by processing the quartz glass body further.

Classifications:

International (IPC 8-9): C03B17/04 C03B19/06 C03B19/10 C03B20/00 C03B33/00 C03B37/012 C03B37/02 C03C13/04 C03C15/00 C03C19/00 C03C23/00 C03C3/06 (Advanced/Invention); C03B17/04 C03B19/06 C03B19/10 (Advanced/Non-invention)

CPC: C03B17/04 C03B19/06 C03B37/01231 C03B20/00 C03C13/045 C03B19/066 C03B37/01228 C03C3/06 C03C23/0075 C03C2203/10

US: 1/1



Family:

Publication number	Publication date	Application number	Application date
■ CN108698896 A	20181023	CN201680082183	20161216
■ EP3390298 A1	20181024	EP20160810409	20161216
■ JP2019504810 T2	20190221	JP20180531170T	20161216
■ KR20180095623 A	20180827	KR20187020273	20161216
■ TW201736290 A	20171016	TW20160141752	20161216
■ US2019071342 AA	20190307	US20160062685	20161216
■ WO17103133 A1	20170622	WO2016EP81464	20161216
■ WO17103133 A9	20180201	WO2016EP81464	20161216

Priority:

EP20150201139 20151218 WO2016EP81464 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): LEHMANN WALTER ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; OTTER MATTHIAS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; HUENERMANN MICHAEL ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: PREPARATION OF CARBON-DOPED SILICON DIOXIDE GRANULATE AS AN INTERMEDIATE IN THE PREPARATION OF QUARTZ GLASS

Abstract: One aspect relates to a process for the preparation of a quartz glass body. The process includes providing a silicon dioxide granulate I prepared from a pyrogenically produced silicon dioxide powder, treating the silicon dioxide granulate I with a reactant at a temperature in a range from 1000 to 1300 degrees centigrade, and making a glass melt out of the silicon dioxide granulate. A quartz glass body is made out of at least a part of the glass melt. Furthermore, one aspect relates to a quartz glass body obtainable by this process. Furthermore, one aspect relates to a light guide, an illuminant, and a formed body, each of which is obtainable by further processing of the quartz glass body. One aspect additionally relates to a process for the preparation of a silicon dioxide granulate II.

Classifications:

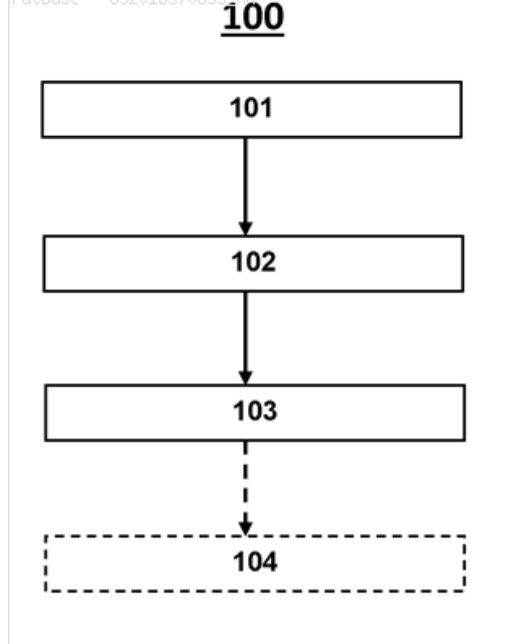
International (IPC 8-9): C01B33/18 C03B1/02 C03B17/04 C03B19/06 C03B19/10 C03B20/00 C03B37/012 C03B37/014 C03C1/02 C03C3/06 G02B6/02 (Advanced/Invention);

C03B17/04 C03B19/10 (Advanced/Non-invention)

CPC: C03B19/1095 C03B2207/32 C03C1/022 C03C3/06 C03C2201/11 C03C2201/23 C03C2201/26 C03C2201/32 C03C2201/50 C03C2203/10 C03B20/00 C03B1/02 C03B19/066 C01B33/184 C03B2201/075 C01P2006/14 C01P2004/51 C01P2006/10 C01P2006/11 C01P2006/12 C03B17/04 C03B19/106 C03B2207/36

US: 1/1 65/144

PatBase - US2018370835_00



Family:

Publication number	Publication date	Application number	Application date
■ CN108698888 A	20181023	CN201680082036	20161216
■ EP3390294 A1	20181024	EP20160809876	20161216
■ JP2019506352 T2	20190307	JP20180531601T	20161216
■ KR20180095879 A	20180828	KR20187020270	20161216
■ TW201733923 A	20171001	TW20160141700	20161216
■ US2018370835 AA	20181227	US20160061927	20161216
■ WO17103131 A1	20170622	WO2016EP81462	20161216

Priority:

EP20150201145 20151218 WO2016EP81462 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): WITTRIN MIRKO ; OTTER MATTHIAS ; KAYSER THOMAS

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: PREPARATION OF QUARTZ GLASS BODIES FROM SILICON DIOXIDE POWDER

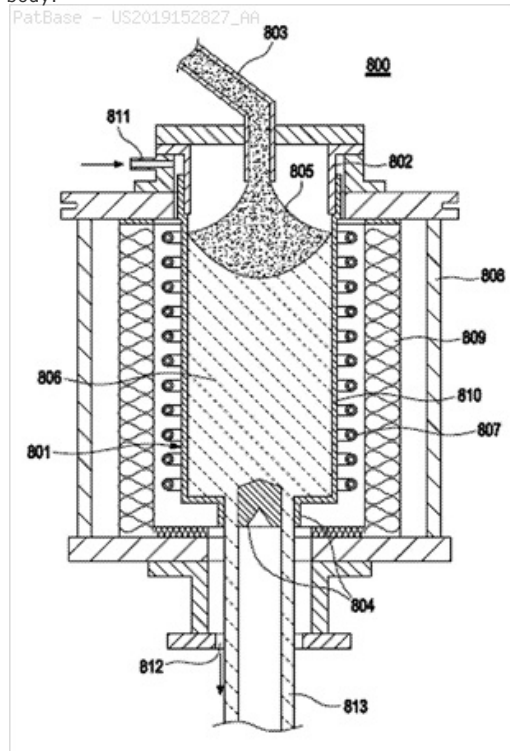
Abstract: One aspect relates to a process for the preparation of a quartz glass body, including providing a silicon dioxide granulate, making a glass melt out of silicon dioxide granulate and making a quartz glass body out of at least part of the glass melt. The silicon dioxide granulate is obtained by providing and processing a silicon dioxide powder. One aspect also relates to silicon dioxide granulate, which is obtained by providing a silicon dioxide powder and processing it. One aspect further relates to a quartz glass body which is obtainable by this process. One aspect further relates to a light guide, an illuminant and a formed body, which are each obtainable by further processing of the quartz glass body.

Classifications:

International (IPC 8-9): C01B33/12 C01B33/18 C03B17/04 C03B19/10 C03B20/00 C03B37/012 C03B37/02 C03B37/027 C03B5/033 C03B5/06 C03C12/00 C03C3/06 (Advanced/Invention)

CPC: C03B5/0336 C03B5/06 C03B19/106 C03B19/108 C03B19/1095 C03B2201/03 C03B2201/23 C03B37/027 G02B6/02042 C03C3/06 C03B2201/04 C03B2203/34 C01B33/12 C03B20/00 C03B17/04 C03B37/01211 C03B2201/07 H01J9/247

US: 1/1

**Family:**

Publication number	Publication date	Application number	Application date
■ CN108779015 A	20181109	CN201680082068	20161216
■ EP3390295 A2	20181024	EP20160809879	20161216
■ JP2019502635 T2	20190131	JP20180530539T	20161216
■ KR20180095878 A	20180828	KR20187020256	20161216
■ TW201731767 A	20170916	TW20160141904	20161216
■ US2019152827 AA	20190523	US20160061451	20161216
■ WO17103156 A2	20170622	WO2016EP81506	20161216
■ WO17103156 A3	20170928	WO2016EP81506	20161216

Priority:

EP20150201089 20151218 WO2016EP81506 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): NIELSEN NILS CHRISTIAN ; TROMMER MARTIN ; OTTER MATTHIAS ; HUENERMANN MICHAEL ; LEHMANN WALTER ; LEHMAN WALTER ; HUNERMANN MICHAEL

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

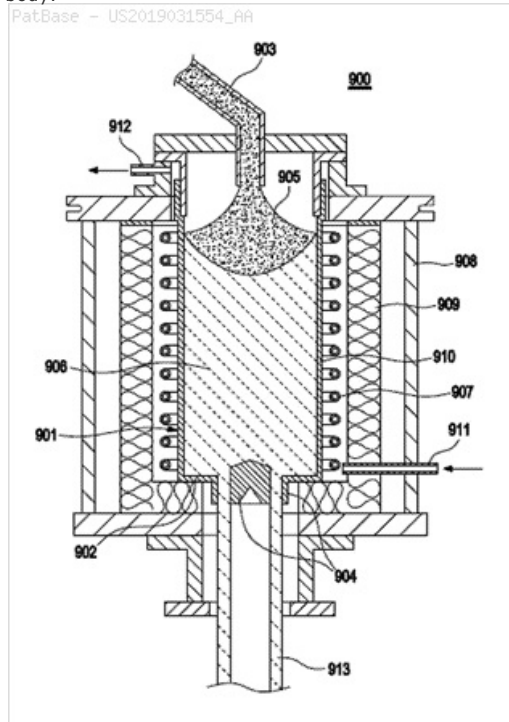
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN 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: PREPARATION OF A QUARTZ GLASS BODY IN A STANDING SINTER CRUCIBLE

Abstract: The invention relates to a process for the preparation of a quartz glass body comprising the process steps i.) Providing a silicon dioxide granulate, ii.) Making a glass melt out of silicon dioxide granulate in an oven and iii.) Making a quartz glass body out of at least part of the glass melt, wherein the oven comprises a standing sinter crucible. The invention further relates to a quartz glass body which is obtainable by this process. The invention further relates to a light guide, an illuminant and a formed body, which are each obtainable by further processing of the quartz glass body.

Classifications:

International (IPC 8-9): B01J2/04 B01J2/12 C01B33/18 C03B17/04 C03B19/10 C03B20/00 C03B33/06 C03B37/012 C03B37/027 C03B5/06 C03B5/167 C03B5/235 C03B5/43 C03C1/02 C03C3/06 (Advanced/Invention); C03B17/04 C03B19/10 C03B5/06 (Advanced/Non-invention) **CPC:** C03B5/06 C03B19/106 C03B37/01211 C03C2201/11 C03C2201/23 C03C2201/32 C03C2201/06 G02B6/02042 B01J2/12 C03B5/167 C03B5/235 C03B33/06 C03B37/02754 C03B37/01274 C01B33/183 C03C2203/20 B01J2/04 C03C3/06 C03B17/04 C03B20/00 C03C1/026 C03C2201/02 G02B6/0005 **US:** 1/1 29/592.1

**Family:**

Publication number	Publication date	Application number	Application date
■ CN108779014 A	20181109	CN201680082038	20161216
■ EP3390300 A1	20181024	EP20160815838	20161216
■ JP2019502632 T2	20190131	JP20180530535T	20161216
■ KR20180095617 A	20180827	KR20187020259	20161216
■ TW201731781 A	20170916	TW20160141907	20161216
■ US2019031554 AA	20190131	US20160061585	20161216
■ WO17103162 A1	20170622	WO2016EP81515	20161216

Priority:

EP20150201095 20151218 WO2016EP81515 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): LEHMANN WALTER ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; OTTER MATTHIAS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; HUENERMANN MICHAEL ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

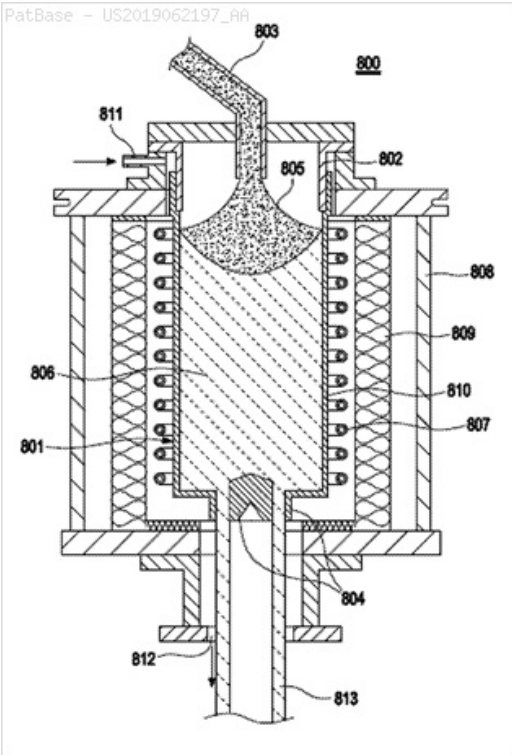
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN 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: PREPARATION OF QUARTZ GLASS BODIES FROM SILICON DIOXIDE GRANULATE

Abstract: The invention relates to a process for the preparation of a quartz glass body comprising the process steps i.) Providing a silicon dioxide granulate obtainable from a silicon dioxide powder, wherein the silicon dioxide granulate has a larger particle size than the silicon dioxide powder, ii.) Making a glass melt out of silicon dioxide granulate and iii.) Making a quartz glass body out of at least part of the glass melt, wherein the melting crucible has at least one inlet and at least one outlet, wherein at least part of the glass melt is removed via the melting crucible outlet. The invention further relates to a quartz glass body which is obtainable by this process. The invention further relates to a light guide, an illuminant and a formed body, which are each obtainable by further processing of the quartz glass body.

Classifications:

International (IPC 8-9): C03B17/04 C03B19/10 C03B20/00 C03B37/012 C03B37/027 C03C1/02 C03C3/06 (Advanced/Invention); C03B17/04 (Advanced/Non-invention)
CPC: C03B17/04 C03B19/108 C03B19/1085 C03B37/01211 C03B2201/03 C03B2201/07 C03C2201/02 Y02P40/57 C03B37/027 C03B37/01291 C03C2201/40 C03C2203/10 C03B2201/02 C03C1/026 C03B20/00 C03C3/06 C03C2201/11 C03C2201/23 C03C2201/32
US: 1/1



Family:

Publication number	Publication date	Application number	Application date
CN108698892 A	20181023	CN201680082150	20161216
EP3390305 A1	20181024	EP20160819871	20161216
JP2019502630 T2	20190131	JP20180530492T	20161216
KR20180094087 A	20180822	KR20187020257	20161216
TW201731778 A	20170916	TW20160141908	20161216
US2019062197 AA	20190228	US20160061558	20161216
WO17103160 A1	20170622	WO2016EP81512	20161216

Priority:

EP20150201093 20151218 WO2016EP81512 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): WITTRIN MIRKO ; LEHMANN WALTER ; WILDE MARKUS ; OTTER MATTHIAS ; NIELSEN NILS CHRISTIAN ; HUENERMANN MICHAEL ; LEHMAN WALTER ; HUNERMANN MICHAEL

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: PREPARATION OF A QUARTZ GLASS BODY IN A MULTI-CHAMBER OVEN

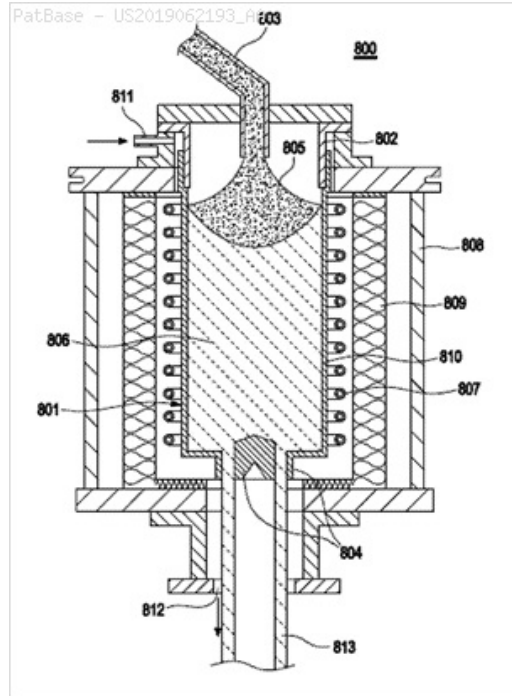
Abstract: The invention relates to a process for the preparation of a quartz glass body comprising the process steps i.) Providing a silicon dioxide granulate, wherein the silicon dioxide granulate was made from pyrogenic silicon dioxide powder and the silicon dioxide granulate has a BET surface area in a range from 20 to 40 m²/g, ii.) Making a glass melt out of silicon dioxide granulate in an oven and iii.) Making a quartz glass body out of at least part of the glass melt, wherein the oven has at least a first and a further chamber connected to one another via a passage, wherein the temperature in the first chamber is lower than the temperature in the further chambers. The invention further relates to a quartz glass body which is obtainable by this process. The invention further relates to a light guide, an illuminant and a formed body, which are each obtainable by further processing of the quartz glass body.

Classifications:

International (IPC 8-9): C03B17/04 C03B19/10 C03B20/00 C03B37/012 C03B37/027 C03B5/06 C03C1/02 C03C3/06 (Advanced/Invention); C03B17/04 C03B19/10 (Advanced/Non-invention)

CPC: C03B19/106 C03B19/1095 Y02P40/57 C03C1/022 C03C12/00 C03C2201/02 C03C2201/54 C03C2203/40 C03C2203/44 C03C2203/50 C03B37/027 C03C1/026 C03C2201/40 C03C2201/23 C03B2201/04 C03B20/00 C03B17/04 C03B37/01211 C03C3/06 C03C2201/11 C03C2201/26 C03C2201/32 C03C2203/10

US: 1/1

**Family:**

Publication number	Publication date	Application number	Application date
■ CN108698894 A	20181023	CN201680082168	20161216
■ EP3390296 A2	20181024	EP20160809881	20161216
■ JP2019502636 T2	20190131	JP20180530540T	20161216
■ KR20180095618 A	20180827	KR20187020260	20161216
■ TW201731782 A	20170916	TW20160141911	20161216
■ US2019062193 AA	20190228	US20160061929	20161216
■ WO17103166 A2	20170622	WO2016EP81519	20161216
■ WO17103166 A3	20170810	WO2016EP81519	20161216
■ WO17103166 A9	20170928	WO2016EP81519	20161216

Priority:

EP20150201097 20151218 WO2016EP81519 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): LEHMANN WALTER ; HUENERMANN MICHAEL ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; SOEHN MATTHIAS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; OTTER MATTHIAS ; HUNERMANN MICHAEL ; SOHN MATTHIAS ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: GAS FLUSHING FOR MELTING OVENS AND PROCESS FOR PREPARATION OF QUARTZ GLASS

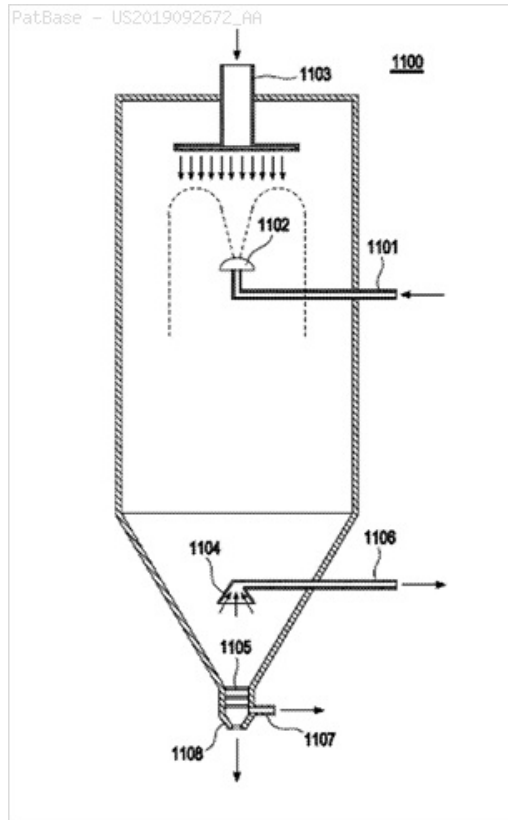
Abstract: One aspect is an oven including a melting crucible with a crucible wall, a solids feed with an outlet, a gas inlet and a gas outlet, wherein in the melting crucible the gas inlet is arranged below the solids feed outlet and the gas outlet is arranged at the same height as or above the solids feed outlet. One aspect further relates to a process for making a quartz glass body, including providing and introducing a bulk material selected from silicon dioxide granulate and quartz glass grain into the oven and providing a gas, making a glass melt from the bulk material, and making a quartz glass body from at least a part of the glass melt. One aspect relates to a quartz glass body obtainable by this process and a light guide, an illuminant and a formed body which are each obtainable by processing the quartz glass body further.

Classifications:

International (IPC 8-9): C03B17/04 C03B20/00 C03B37/012 C03B5/033 C03B5/06 C03B5/16 C03B5/167 C03B5/18 C03B5/26 C03C13/04 C03C3/06 F27B14/10 F27B14/16 (Advanced/Invention); C03B17/04 (Advanced/Non-invention)

CPC: C03B5/167 C03B2201/07 C03B2201/23 C03C3/06 C03C2201/11 C03C2201/23 C03B5/163 C03B5/26 C03B5/18 C03B17/04 C03B5/06 C03B20/00 C03B37/01211 C03C13/045 C03C2201/32 C03C2203/10

US: 1/1



Family:

Publication number	Publication date	Application number	Application date
■ CN108698891 A	20181023	CN201680082148	20161216
■ EP3390297 A1	20181024	EP20160809882	20161216
■ TW201736287 A	20171016	TW20160141686	20161216
■ US2019092672 AA	20190328	US20160062243	20161216
■ WO17103168 A1	20170622	WO2016EP81521	20161216

Priority:

EP20150201104 20151218 WO2016EP81521 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): GROMANN BORIS ; WHIPPEY NIGEL ROBERT

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWALTE PARTG MBB

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 DJ 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 KH KM KN KP KR KW 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: REDUCING CARBON CONTENT OF SILICON DIOXIDE GRANULATE AND THE PREPARATION OF A QUARTZ GLASS BODY

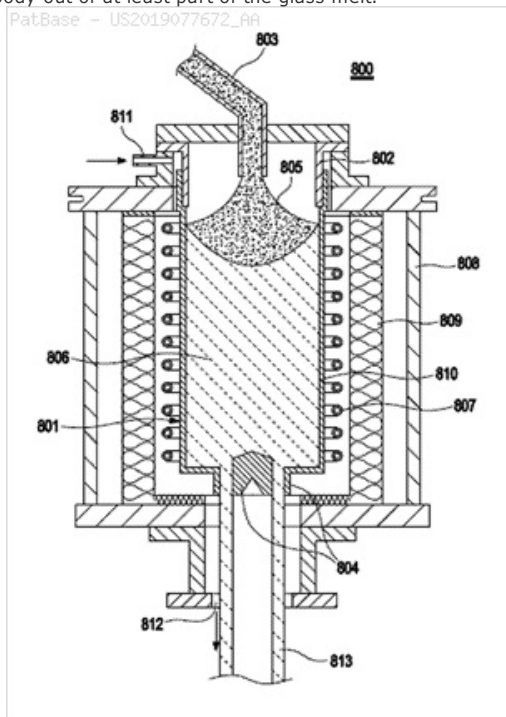
Abstract: One aspect is a process for the preparation of a quartz glass body including providing a silicon dioxide granulate wherein the provision includes providing silicon dioxide powder, and processing the silicon dioxide powder to obtain a silicon dioxide granulate. The silicon dioxide granulate has a larger particle diameter than the silicon dioxide powder. The processing includes processing the silicon dioxide powder to obtain a silicon dioxide granulate I, wherein the silicon dioxide granulate I has a first carbon content $wC(1)$, treating the silicon dioxide granulate I with a reactant to obtain a silicon dioxide granulate II with a further carbon content $wC(2)$, wherein the further carbon content $wC(2)$ is less than the first carbon content $wC(1)$, making a glass melt out of the silicon dioxide granulate and making a quartz glass body out of at least part of the glass melt.

Classifications:

International (IPC 8-9): C01B33/18 C03B17/04 C03B19/10 C03B20/00 C03B37/012 C03C1/02 C03C3/06 G02B6/12 (Advanced/Invention); C03B17/04 C03B19/10 (Advanced/Non-invention)

CPC: C03B19/1095 C03B2201/07 C03C1/022 C03C3/06 C03C12/00 C03C2201/02 C03C2201/11 C03C2201/26 C03C2201/32 C03C2201/54 C03C2203/10 C03C2203/40 C03C2203/44 C03C2203/50 C01B33/181 C03B20/00 G02B6/12 C01P2006/80 C01P2006/12 C01P2004/51 C01P2004/61 C01P2006/10 C01P2006/11 C03B17/04 C03B19/106 C03B2201/075 C03B2207/32 C03B2207/36

US: 1/1



Family:

Publication number	Publication date	Application number	Application date
■ CN108698886 A	20181023	CN201680082012	20161216
■ EP3390307 A2	20181024	EP20160822148	20161216
■ JP2019502631 T2	20190131	JP20180530493T	20161216
■ TW201733924 A	20171001	TW20160141758	20161216
■ US2019077672 AA	20190314	US20160062234	20161216
■ WO17103167 A2	20170622	WO2016EP81520	20161216
■ WO17103167 A3	20171123	WO2016EP81520	20161216

Priority:

EP20150201098 20151218 WO2016EP81520 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): KAYSER THOMAS ; LEHMANN WALTER ; HUENERMANN MICHAEL ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; OTTER MATTHIAS ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWAELTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: AMMONIA TREATMENT OF SILICON DIOXIDE POWDER IN THE PREPARATION OF QUARTZ GLASS

Abstract: One aspect relates to a process for the preparation of a quartz glass body, including provision of a silicon dioxide granulate, making a glass melt from the silicon dioxide granulate and making a quartz glass body from at least part of the glass melt. The provision includes making a silicon dioxide powder with at least two particles prepared from a silicon-chlorine compound, bringing the silicon dioxide powder into contact with ammonia to obtain a treated silicon dioxide powder, and granulating the treated silicon dioxide powder to obtain a silicon dioxide granulate. The chlorine content of the silicon dioxide powder is greater than the chlorine content of the silicon dioxide granulate. One aspect relates further to a quartz glass body which is obtainable by this process. One aspect also relates to a process for the preparation of a silicon dioxide granulate.

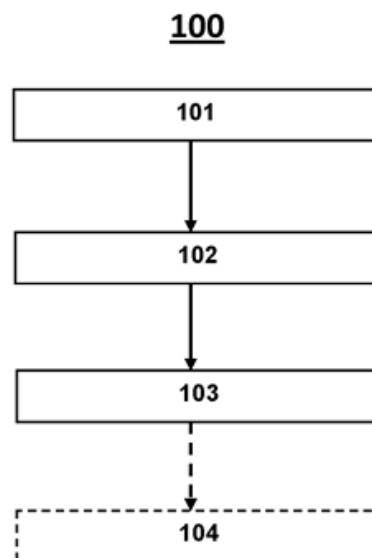
Classifications:

International (IPC 8-9): C01B33/18 C03B19/06 C03B19/10 C03B20/00 C03B37/012 C03B37/014 C03C12/00 C03C3/06 G02B6/02 (Advanced/Invention)

CPC: C03B17/04 C03B2201/07 C03B2201/23 C03C3/06 C03C13/045 C03C2201/11 C03C2201/23 C03C2201/26 C03C2201/32 C03C2203/44 C03C2203/54 C03B19/1065 C01P2004/61 C01P2006/12 C01P2006/10 C01P2006/14 C01P2004/51 C01B33/18 C03B19/066 C03B19/106 C03B19/108 C03B19/1095

US: 1/1 65/21.1

PatBase - US2018370838_AA



Family:

Publication number	Publication date	Application number	Application date
■ CN108698882 A	20181023	CN201680081955	20161216
■ EP3390301 A1	20181024	EP20160815839	20161216
■ JP2019503961 T2	20190214	JP20180530538T	20161216
■ TW201733930 A	20171001	TW20160141761	20161216
■ US2018370838 AA	20181227	US20160062280	20161216
■ WO17103171 A1	20170622	WO2016EP81525	20161216
■ WO17103171 A9	20171123	WO2016EP81525	20161216

Priority:

EP20150201116 20151218 WO2016EP81525 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): KAYSER THOMAS ; LEHMANN WALTER ; HUENERMANN MICHAEL ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; OTTER MATTHIAS ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWAELTE PARTG MBB; FUJITA KAZUKO

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 DJ 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 KH KM KN KP KR KW 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: STEAM TREATMENT OF SILICON DIOXIDE POWDER IN THE PREPARATION OF QUARTZ GLASS

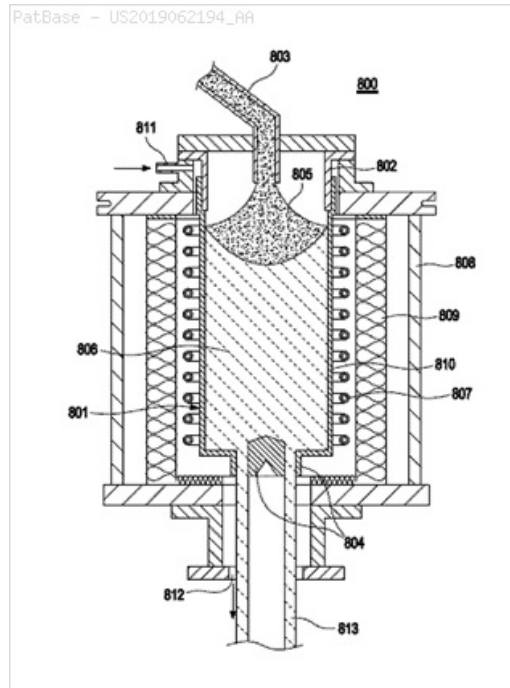
Abstract: The invention relates to a process for the preparation of a quartz glass body comprising the process steps i.) Providing a silicon dioxide granulate, ii.) Making a glass melt out of the silicon dioxide granulate and iii) Making a quartz glass body out of at least part of the glass melt, wherein the provision comprises the steps I. Providing a silicon dioxide powder with at least two particles made from a silicon-chlorine compound, II. Bringing the silicon dioxide powder into contact with steam to obtain a treated silicon dioxide powder and III. Granulating the treated silicon dioxide powder to obtain a silicon dioxide granulate, and wherein the chlorine content of the silicon dioxide powder is greater than the chlorine content of the silicon dioxide granulate. The invention further relates to a quartz glass body which is obtainable by this process. The invention further relates to a process for providing a silicon dioxide granulate. The invention further relates to a light guide, an illuminant and a formed body, which are each obtainable by further processing of the quartz glass body.

Classifications:

International (IPC 8-9): C01B33/12 C03B17/04 C03B19/06 C03B19/10 C03B19/14 C03B20/00 C03B37/012 C03B37/027 C03C12/00 C03C3/06 G02B6/02 H01J61/30 H01J9/24 (Advanced/Invention)

CPC: C03B19/066 C03B19/106 C03B19/1095 C03B2201/03 C03C13/045 C03C2201/26 C03C2203/44 C03C2203/54 C03B20/00 C01P2004/61 C03B37/01222 C03B37/027 C01B33/12 H01J61/302 H01J9/247 G02B6/02042 C03C2203/10 C01P2006/12 C01P2006/11 C01P2006/14 C01P2006/82 C01P2004/51 C03B17/04 C03B19/108 C03B2201/04 C03C3/06 C03C2201/11 C03C2201/23 C03C2201/32

US: 1/1

**Family:**

Publication number	Publication date	Application number	Application date
■ CN108698884 A	20181023	CN201680081978	20161216
■ EP3390309 A1	20181024	EP20160822951	20161216
■ JP2019502634 T2	20190131	JP20180530537T	20161216
■ TW201733932 A	20171001	TW20160141684	20161216
■ US2019062194 AA	20190228	US20160062248	20161216
■ WO17103170 A1	20170622	WO2016EP81523	20161216

Priority:

EP20150201111 20151218 WO2016EP81523 20161216

Probable Assignee: HERAEUS QUARZGLAS

Assignee(s): (std): HERAEUS QUARZGLAS

Assignee(s): HERAEUS QUARZGLAS GMBH AND CO KG

Inventor(s): (std): KAYSER THOMAS ; LEHMANN WALTER ; HUENERMANN MICHAEL ; KPEBANE ABDOUL GAFAR ; GROMANN BORIS ; WHIPPEY NIGEL ROBERT ; NIELSEN NILS CHRISTIAN ; OTTER MATTHIAS ; HUNERMANN MICHAEL ; LEHMAN WALTER

Agent(s): HERZOG FIESSER AND PARTNER PATENTANWAELTE PARTG MBB; FUJITA KAZUKO

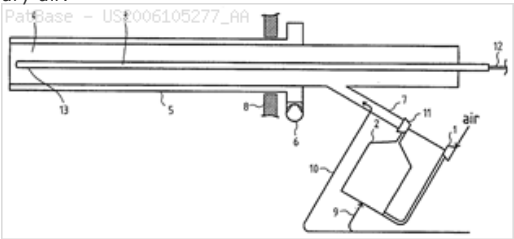
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN 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: METHOD AND BURNER FOR ROTARY KILNS

Abstract: The present invention relates to a method of and a burner for generating a flame in a combustion zone of a rotary kiln. The burner comprises at least a burner tube (4) extending into the kiln from outside of the kiln and means (3) for introducing fuel into the burner tube and means for leading primary air via the burner tube into the combustion zone of the kiln. A characteristic feature of the invention is that the burner is connected to a gas turbine (1, 2) via a connecting tube (7) for leading flue gas generated in the gas turbine into the burner tube as primary air.

Classifications:

International (IPC 8-9): C04B2/10 C04B7/43 F23C7/00 F23C99/00 F23D11/38 F23D11/44 F23D17/00 F23L7/00 F27B7/10 F27B7/34 F27B7/36 F27D7/02 (Advanced/Invention); F27D23/00 F27D99/00 (Advanced/Non-invention)
International (IPC 1-7): C04B2/10 C04B7/43 F23C11/00 F23C7/00 F23D17/00 F23D21/00 F23L5/00 F23L7/00 F27B7/10 F27B7/34 F27B7/36 F27D7/02
CPC: F23C7/002 F23D11/383 F23L7/00 F27B7/34 F27D99/0033
European: F23C7/00A F23D11/38B F23L7/00 F27B7/34 R27D99/00A5
US: 431/11 431/11P 431/162 431/162S 431/215 431/215S



Family:

Publication number	Publication date	Application number	Application date
AU2003240914 AA	20040106	AU20030240914	20030616
BRPI0312073 A	20050322	BR2003PI12073	20030616
CA2490637 AA	20041222	CA20032490637	20030616
CA2490637 C	20080805	CA20032490637	20030616
EP1537371 A1	20050608	EP20030730280	20030616
FI20021223 A	20031225	FI20020001223	20020624
FI20021223 A0	20020624	FI20020001223	20020624
JP2005530980 T2	20051013	JP20040514893T	20030616
RU2005101417 A	20051027	RU20050101417	20030616
RU2317499 C2	20080220	RU20050101417	20030616
US2006105277 AA	20060518	US20030518521	20030616
WO04001310 A1	20031231	WO2003FI00479	20030616

Priority:

FI20020001223 20020624 WO2003FI00479 20030616

Probable Assignee: ANDRITZ OY

Assignee(s): (std): AHVENAINEN ARTO ; ANDRITZ OY ; ARPALAHTI OLLI ; NIKUNEN HANNU

Inventor(s): (std): ARPALAHTI OLLI ; NIKUNEN HANNU ; NIKUNEN HANNU ILMARI ; AHVENAINEN ARTO ; ILM MYOEH

Inventor(s): AKHVENAJNEN ARTO ; NIKUNEN KHANNU ; OLLI ARPALAHTI ; ARPALAKHTI OLLI ; ARTO AHVENAINEN ; HANNU NIKUNEN

Agent(s): GOWLING LAFLEUR HENDERSON LLP; NIXON AND VANDERHYE PC

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 PH PL PT RO RU SC SD SE SG SI SK SL SN SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW