

Title (en)

METHOD AND APPARATUS FOR SEPARATING AIR BY CRYOGENIC DISTILLATION

Title (de)

VERFAHREN UND VORRICHTUNG ZUR LUFTTRENNUNG DURCH KRYOGENE DESTILLATION

Title (fr)

PROCEDE ET APPAREIL DE SEPARATION D'AIR PAR DISTILLATION CRYOGENIQUE

Publication

EP 2569584 A2 20130320 (FR)

Application

EP 11717684 A 20110325

Priority

- FR 1053616 A 20100510
- FR 2011050647 W 20110325

Abstract (en)

[origin: WO2011141652A2] In a method for the cryogenic distillation of air to produce gaseous oxygen with a purity of between 75 and 95 mol% and a pressure lower than 5 bar abs with a triple column comprising a high-pressure column (5), a medium-pressure column (3) and a low-pressure column (7), the medium-pressure column being wholly or partially thermally coupled to the low-pressure column by means of a first dephlegmator, air being sent to the medium-pressure column, a vessel liquid is sent from the high pressure column to the low-pressure column and/or to the top of the medium-pressure column, a head gas is sent from the medium-pressure column to the bottom of the high-pressure column via a compressor, a vessel liquid from the high-pressure column is sent to the top of the low-pressure column, a gas is withdrawn from the top of the low-pressure column and a fluid containing between 75 and 95 mol% of oxygen is withdrawn from the bottom of the low-pressure column, and the high-pressure column is also wholly or partially thermally coupled to the low-pressure column by means of a second dephlegmator.

IPC 8 full level

F25J 3/04 (2006.01)

CPC (source: EP US)

B01D 3/00 (2013.01 - US); **F25J 3/0406** (2013.01 - EP US); **F25J 3/0409** (2013.01 - EP US); **F25J 3/04454** (2013.01 - EP US); **F25J 3/0463** (2013.01 - EP US); **F25J 3/08** (2013.01 - US); **F25J 2200/08** (2013.01 - EP US); **F25J 2200/32** (2013.01 - EP US); **F25J 2215/50** (2013.01 - EP US); **F25J 2245/42** (2013.01 - EP US); **F25J 2290/12** (2013.01 - EP US)

Citation (search report)

See references of WO 2011141652A2

Cited by

CN105985231A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

FR 2959802 A1 20111111; **FR 2959802 B1 20130104**; CN 102985776 A 20130320; CN 102985776 B 20150819; EP 2569584 A2 20130320; JP 2013531211 A 20130801; US 2013247611 A1 20130926; WO 2011141652 A2 20111117; WO 2011141652 A3 20121213

DOCDB simple family (application)

FR 1053616 A 20100510; CN 201180023260 A 20110325; EP 11717684 A 20110325; FR 2011050647 W 20110325; JP 2013509590 A 20110325; US 201113695162 A 20110325