

Title (en)

METHOD AND DEVICE FOR SEPARATING AIR BY CRYOGENIC DISTILLATION

Title (de)

VERFAHREN UND VORRICHTUNG ZUR LUFTZERLEGUNG DURCH KRYOGENE DESTILLATION

Title (fr)

PROCÉDÉ ET APPAREIL DE SÉPARATION D'AIR PAR DISTILLATION CRYOGÉNIQUE

Publication

**EP 2694898 A2 20140212 (FR)**

Application

**EP 12720248 A 20120405**

Priority

- FR 1153070 A 20110408
- FR 2012050742 W 20120405

Abstract (en)

[origin: WO2012136939A2] The invention relates to a method for separating air by cryogenic distillation in a separation unit including a medium-pressure column (23) and a low-pressure column (25), in which a flow of oxygen-rich liquid is sent to the top of the column of pure oxygen, having a vessel reboiler (61), in which said flow is purified in order to form a vessel liquid containing at least 98 mol % of oxygen and the vessel liquid is drawn off as a product; a supercharged airflow at a second pressure higher than the first pressure is sent to the vessel reboiler of the pure oxygen column and to a liquid oxygen vaporiser (51); a nitrogen-rich gas is drawn from the top of the medium-pressure column; said gas is sent to an intermediate reboiler of the low-pressure column and the condensed gas is sent to the top of the medium-pressure column; and a nitrogen-rich gas or air is sent to a vessel reboiler (36) of the low-pressure column and the liquid that condenses therein is sent to the medium-pressure column.

IPC 8 full level

**F25J 3/04** (2006.01)

CPC (source: EP US)

**F25J 3/04** (2013.01 - US); **F25J 3/0406** (2013.01 - EP US); **F25J 3/0409** (2013.01 - EP US); **F25J 3/04181** (2013.01 - EP US); **F25J 3/04206** (2013.01 - EP US); **F25J 3/04224** (2013.01 - US); **F25J 3/04254** (2013.01 - EP US); **F25J 3/04309** (2013.01 - EP US); **F25J 3/04351** (2013.01 - EP US); **F25J 3/04418** (2013.01 - EP US); **F25J 3/04454** (2013.01 - EP US); **F25J 3/0486** (2013.01 - EP US); **F25J 2200/34** (2013.01 - EP US); **F25J 2200/54** (2013.01 - EP US); **F25J 2210/42** (2013.01 - EP US); **F25J 2215/52** (2013.01 - EP US); **F25J 2250/40** (2013.01 - EP US); **F25J 2250/50** (2013.01 - EP US)

Citation (search report)

See references of WO 2012136939A2

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)

**WO 2012136939 A2 20121011**; **WO 2012136939 A3 20150122**; AU 2012238460 A1 20131031; AU 2012238460 B2 20161222; CA 2830826 A1 20121011; CA 2830826 C 20181016; CN 103842753 A 20140604; CN 103842753 B 20161207; EP 2694898 A2 20140212; EP 2694898 B1 20200617; FR 2973865 A1 20121012; FR 2973865 B1 20151106; US 2014053601 A1 20140227; US 9696087 B2 20170704

DOCDB simple family (application)

**FR 2012050742 W 20120405**; AU 2012238460 A 20120405; CA 2830826 A 20120405; CN 201280027982 A 20120405; EP 12720248 A 20120405; FR 1153070 A 20110408; US 201214110356 A 20120405