

Title (en)

Process and apparatus for the separation of air by cryogenic distillation

Title (de)

Verfahren und Vorrichtung zur Abscheidung von Luft durch kryogene Destillation

Title (fr)

Processus et appareil pour la séparation de l'air par distillation cryogénique

Publication

EP 2741036 A1 20140611 (EN)

Application

EP 12306527 A 20121206

Priority

EP 12306527 A 20121206

Abstract (en)

In a process for the separation of air by cryogenic distillation in a triple column (100, 200, 300), the ratio between the amount of nitrogen rich gas produced and the amount of oxygen rich gas produced, is less than 3 or even less than 2.5 and a second nitrogen rich gas removed from the column system is expanded in a turboexpander (99) having an inlet temperature lower than the ambient temperature, the turboexpander being driven by a cold compressor (96).

IPC 8 full level

F25J 3/04 (2006.01)

CPC (source: EP)

F25J 3/04054 (2013.01); **F25J 3/0406** (2013.01); **F25J 3/0409** (2013.01); **F25J 3/04296** (2013.01); **F25J 3/04315** (2013.01); **F25J 3/04387** (2013.01); **F25J 3/04393** (2013.01); **F25J 3/04448** (2013.01); **F25J 2200/20** (2013.01); **F25J 2205/02** (2013.01); **F25J 2235/42** (2013.01); **F25J 2240/10** (2013.01); **F25J 2245/42** (2013.01); **F25J 2290/12** (2013.01)

Citation (applicant)

EP 0518491 A1 19921216 - AIR PROD & CHEM [US]

Citation (search report)

- [XYI] FR 2819046 A1 20020705 - AIR LIQUIDE [FR]
- [XYI] US 6286336 B1 20010911 - PROSSER NEIL MARK [US]
- [Y] FR 2686405 A1 19930723 - AIR LIQUIDE [FR]
- [Y] JP 2001133143 A 20010518 - TOSHIBA CORP

Cited by

CN107166872A; CN115092891A; US2022090856A1

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)

EP 2741036 A1 20140611

DOCDB simple family (application)

EP 12306527 A 20121206