

Title (en)

Process and apparatus for air separation by cryogenic distillation

Title (de)

Verfahren und Vorrichtung zur Tieftemperaturzerlegung von Luft

Title (fr)

Procédé et installation de séparation d'air par distillation cryogénique

Publication

EP 1231440 A1 20020814 (DE)

Application

EP 01129565 A 20011212

Priority

DE 10061908 A 20001212

Abstract (en)

[origin: DE10061908A1] Device for low temperature decomposition of air to recover nitrogen, oxygen and argon comprises a two-stage rectifier column comprising a high pressure column (1) and a low pressure column (3) which are thermally connected together using a condenser (2). Device for low temperature decomposition of air to recover nitrogen, oxygen and argon comprises a two-stage rectifier column comprising a high pressure column (1) and a low pressure column (3) which are thermally connected together using a condenser (2). The columns are connected to a heat exchange network, a crude argon column (10) and a liquefied air column (17) via lines including measuring, controlling, regulating and conveying devices. An Independent claim is also included for a process for the low temperature decomposition of air to recover nitrogen, oxygen and argon using a rectifier system consisting of a pressure column and a low pressure column thermally connected using a main condenser, a crude argon column, and a liquefied air column.

Abstract (de)

Die Erfindung betrifft ein Verfahren und eine Vorrichtung zur Tieftemperaturzerlegung von Luft zur Gewinnung von Stickstoff, Sauerstoff und Argon mit einem Rektifiziersystem mit mindestens einer mittels Hauptkondensator (2) thermisch miteinander gekoppelten Druck- und Niederdrucksäule (1,3) aufweisenden Rektifiziersäule, welche mit mindestens einer Rohargonsäule (10) und mindestens einer Flüssigluftsäule (17) verbunden ist. Die eine zusätzliche, separate Luftvorfraktionierung nutzende Luftzerlegung ermöglicht eine kostengünstige Produktgewinnung bei optimalen Produktausbeuten. <IMAGE>

IPC 1-7

F25J 3/04

IPC 8 full level

F25J 3/04 (2006.01)

CPC (source: EP)

F25J 3/04448 (2013.01); **F25J 3/04709** (2013.01); **F25J 3/04727** (2013.01); **F25J 3/04872** (2013.01); **F25J 2200/50** (2013.01);
F25J 2205/02 (2013.01); **F25J 2250/20** (2013.01); **F25J 2290/10** (2013.01)

Citation (search report)

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- [A] US 4717409 A 19880105 - ATKINSON TIMOTHY D [GB]
- [A] EP 0694744 A1 19960131 - BOC GROUP PLC [GB]

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CN114949897A; DE102008016355A1; US11959701B2; WO2024026168A1; WO2024026165A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

EP 1231440 A1 20020814; EP 1231440 B1 20070718; AT E367563 T1 20070815; DE 10061908 A1 20020627; DE 50112737 D1 20070830;
PT 1231440 E 20071012

DOCDB simple family (application)

EP 01129565 A 20011212; AT 01129565 T 20011212; DE 10061908 A 20001212; DE 50112737 T 20011212; PT 01129565 T 20011212