

Title (en)

Apparatus for the cryogenic separation of a gaseous mixture in particular of air

Title (de)

Vorrichtung zur Tieftemperaturzerlegung eines Gasgemisches, insbesondere von Luft

Title (fr)

Installation pour la séparation cryogénique d'un mélange gazeux en particulier d'air

Publication

**EP 1666822 A1 20060607 (DE)**

Application

**EP 04028681 A 20041203**

Priority

- EP 04028681 A 20041203
- EP 04028682 A 20041203
- EP 04028683 A 20041203

Abstract (en)

Device (A) for generating a product (B) by cryogenic resolution of a gas mixture (C), especially air. Device (A) for generating a product (B) by cryogenic resolution of a gas mixture (C), especially air, comprises: (A) a compressor (2) for (C); (B) a direct-contact cooler for precooling (C); (C) a purification unit for precooled (C); (D) a cryogenic part (7), including a main heat exchanger (8a) for cooling purified (C) to about its dew point and a distillation column (9a) for cryogenic fractionation of cooled (C); and (E) a coolant recycle line (61) to supply coolant to (3), where (61) includes an evaporative cooler (15) that cools coolant in direct heat exchange with a gas stream from (7). The new feature is that the ratio (R) of (a) the distance (d1) between (15) and (3) and (b) the distance (d2) between (15) and (8a) is at least 0.5, especially at least 1.

IPC 8 full level

**F25J 3/04** (2006.01)

CPC (source: EP US)

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Citation (search report)

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- [A] "OXYGEN-NITROGEN GENERATORS", PUBLICATION BOC CRYOPLANTS, BOC CRYOPLANTS ENGINEERING CENTRE, GUILDFORD, GB, May 1992 (1992-05-01), pages 1 - 5, XP001223905

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**US 2006156759 A1 20060720**; **US 7516626 B2 20090414**; CA 2528735 A1 20060603; CA 2528735 C 20130806; CN 100575838 C 20091230; CN 1782644 A 20060607; EP 1666822 A1 20060607; EP 1666823 A1 20060607; EP 1672301 A1 20060621; EP 1672301 B1 20180815; PL 1672301 T3 20190131; RU 2005137481 A 20070620; RU 2382963 C2 20100227

DOCDB simple family (application)

**US 29228205 A 20051202**; CA 2528735 A 20051202; CN 200510128991 A 20051205; EP 04028681 A 20041203; EP 04028683 A 20041203; EP 05024947 A 20051115; PL 05024947 T 20051115; RU 2005137481 A 20051202