

Title (en)
Process and apparatus for the separation of air by cryogenic distillation

Title (de)
Verfahren und Vorrichtung zur Luftzerlegung durch Tieftemperaturdestillation

Title (fr)
Procédé et installation pour la séparation de l'air par distillation cryogénique

Publication
EP 2597409 A1 20130529 (EN)

Application
EP 11306552 A 20111124

Priority
EP 11306552 A 20111124

Abstract (en)
An apparatus for the separation of air by cryogenic distillation comprises a column system including a double column (100, 101), an intermediate pressure column (103), operating a pressure between that of the high pressure column and that of the low pressure column, and an argon column (102), a heat exchanger (200), a conduit for sending purified compressed air to be cooled in the heat exchanger, a conduit for sending cooled purified compressed air from the heat exchanger at least in part to the high pressure column, means for pressurizing and vaporizing oxygen rich liquid (30) from the low pressure column, means for pressurizing and vaporizing nitrogen rich liquid (40), a conduit for sending argon enriched gas (50, 54) from the low pressure column to the argon column, said argon column having a top condenser (105), a conduit for removing argon rich fluid (80) from the top of the argon column, a conduit for sending a liquid air stream (4, 20, 22) at least in part to a top condenser (107) of the intermediate pressure column where it is partially vaporized to form a vapor and a liquid, a conduit for sending the vapor (123) formed in the top condenser of the intermediate pressure column to the low pressure column and a conduit for sending the liquid (24) from the top condenser of the intermediate pressure column to the intermediate pressure column to be separated.

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Citation (applicant)
EP 0828123 A2 19980311 - BOC GROUP PLC [GB]

Citation (search report)

- [AD] EP 0828123 A2 19980311 - BOC GROUP PLC [GB]
- [A] EP 1055891 A1 20001129 - AIR LIQUIDE [FR]
- [A] DE 10061908 A1 20020627 - MESSER AGS GMBH [DE]
- [AD] ANONYMOUS: "Intermediate pressure column in air separation", RESEARCH DISCLOSURE, MASON PUBLICATIONS, HAMPSHIRE, GB, vol. 425, no. 44, 1 September 1999 (1999-09-01), XP007124790, ISSN: 0374-4353

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FR3010778A1; US9976803B2; WO2015040306A3; EP2634517B1

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DOCDB simple family (application)
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