Title (en)

Process for cryogenic air separation using a side condenser

Title (de)

Verfahren zur kryogenischen Luftabscheidung mit einem Nebenkondensator

Title (fr)

Procédé de séparation cryogénique de l'air à l'aide d'un condensateur latéral

Publication

**EP 2447653 A1 20120502 (EN)**

Application

**EP 10014198 A 20101102**

Priority

EP 10014198 A 20101102

Abstract (en)

The invention relates to a process for cryogenic air separation in a distillation system comprising a high pressure column (7), a low pressure column (8), a side condenser (10) having an evaporation space and a crude argon distillation system comprising at least a first crude argon column (12). Feed air is compressed and purified. At least a portion of the purified feed air (1) is cooled in a main heat exchanger. At least a portion of the cooled feed is fed to the high pressure column (7). A first liquid oxygen stream (48) withdrawn from the low pressure column (8) is at least partially evaporated in the evaporation space of the side condenser (10) by indirect heat exchange with a heating medium (49). A first gaseous oxygen stream (51) produced by the evaporation of the first liquid oxygen stream is withdrawn from the evaporation space of the side condenser (10), warmed in the main heat exchanger (3) and finally withdrawn as a first gaseous oxygen product stream (LP-GOX). A liquid purge stream (59) is withdrawn from the side condenser. The liquid purge stream (59) is introduced into the crude argon distillation system.

IPC 8 full level

**F25J 3/04** (2006.01)

CPC (source: EP)

**F25J 3/04084** (2013.01); **F25J 3/0409** (2013.01); **F25J 3/04096** (2013.01); **F25J 3/042** (2013.01); **F25J 3/04206** (2013.01); **F25J 3/04296** (2013.01); **F25J 3/04412** (2013.01); **F25J 3/04678** (2013.01); **F25J 3/04727** (2013.01); **F25J 3/0486** (2013.01); F25J 2200/94 (2013.01); F25J 2215/52 (2013.01); F25J 2215/54 (2013.01); F25J 2235/58 (2013.01); F25J 2250/40 (2013.01); F25J 2250/50 (2013.01)

Citation (applicant)

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