Title (en)

Device and process for producing gaseous oxygen under elevated pressure

Title (de)

Vorrichtung und Verfahren zur Erzeugung gasförmigen Sauerstoffs unter erhöhtem Druck

Title (fr)

Appareil et procédé de production d'oxygène gazeux sous pression élevée

Publication

EP 1319913 A1 20030618 (DE)

Application

EP 02027308 A 20021206

Priority

- EP 02027308 A 20021206
- DE 10161584 A 20011214
- EP 02002634 A 20020205

Abstract (en)

Device for producing gaseous oxygen under elevated pressure comprises distillation column system consisting of low pressure column arranged above high pressure column; condenser-evaporator having liquefying chamber and evaporation chamber; process air line connected to the high pressure column; transfer line; liquid line; and product line. <??>Device for producing gaseous oxygen under elevated pressure comprises a distillation column system consisting of a low pressure column (107) arranged above a high pressure column (106); a condenser-evaporator (102) having a liquefying chamber and an evaporation chamber and arranged below the sump of the low pressure column; a process air line (1-4) connected to the high pressure column; a transfer line (18, 19) for introducing a fraction from the high pressure column into the low pressure column; a liquid line (28) for removing a liquid oxygen fraction from the low pressure column; and a product line (29, 30) for gaseous oxygen under elevated pressure which is connected to the evaporation chamber of the condenser-evaporator. The condenser-evaporator is arranged below the high pressure column. <??>An Independent claim is also included for a process for producing gaseous oxygen under elevated pressure.

Abstract (de)

Die Vorrichtung und das Verfahren dienen zur Erzeugung gasförmigen Sauerstoffs unter erhöhtem Druck. Ein Destilliersäulen-System weist eine Hochdrucksäule (106) und eine Niederdrucksäule (107) auf. Die Niederdrucksäule (107) ist oberhalb der Hochdrucksäule (106) angeordnet. Ein Nebenkondensator (102), der einen Verflüssigungsraum und einen Verdampfungsraum aufweist, ist unterhalb des Sumpfs der Niederdrucksäule (107) angeordnet und dient zur Verdampfung einer flüssigen Sauerstofffraktion aus der Niederdrucksäule (107). Der Nebenkondensator (102) ist unterhalb der Hochdrucksäule (106) angeordnet. <IMAGE>

IPC 1-7

F25J 3/04; F25J 5/00

IPC 8 full level

F25J 3/04 (2006.01)

CPC (source: EP US)

F25J 3/0409 (2013.01 - EP US); **F25J 3/04103** (2013.01 - EP US); **F25J 3/04206** (2013.01 - EP US); **F25J 3/04236** (2013.01 - EP US); **F25J 3/04254** (2013.01 - EP US); **F25J 3/04303** (2013.01 - EP US); **F25J 3/04412** (2013.01 - EP US); **F25J 3/0486** (2013.01 - EP US); **F25J 3/04872** (2013.01 - EP US); **F25J 3/04884** (2013.01 - EP US); F25J 2205/02 (2013.01 - EP US); F25J 2205/04 (2013.01 - EP); F25J 2210/42 (2013.01 - EP US); F25J 2210/50 (2013.01 - EP US); F25J 2245/40 (2013.01 - EP US); F25J 2250/40 (2013.01 - EP US); F25J 2250/50 (2013.01 - EP US); Y10S 62/905 (2013.01 - EP US)

Citation (search report)

- [X] US 4560398 A 19851224 - BEDDOME ROBERT A [US], et al
- [A] US 5582032 A 19961210 - SHELTON JAMES T [US], et al
- [A] US 5979182 A 19991109 - GOTO MASAHIRO [JP], et al
- [A] US 4781739 A 19881101 - ERICKSON DONALD C [US]
- [A] EP 1041353 A2 20001004 - BOC GROUP INC [US]
- [A] US 4133662 A 19790109 - WAGNER NORBERT
- [A] EP 0464630 A1 19920108 - UNION CARBIDE IND GASES TECH [US]
- [DA] DE 19904526 A1 19990902 - AIR LIQUIDE [FR]

Cited by

WO2014102014A2; WO2014102014A3

Designated contracting state (EPC)

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

DOCDB simple family (publication)

EP 1319912 A1 20030618; DE 10161584 A1 20030626; EP 1319913 A1 20030618; US 2003110796 A1 20030619; US 6662594 B2 20031216

DOCDB simple family (application)

EP 02002634 A 20020205; DE 10161584 A 20011214; EP 02027308 A 20021206; US 31958202 A 20021216