

Title (en)

EVAPORATOR-CONDENSER FOR A DOUBLE COLUMN AIR SEPARATION APPARATUS

Publication

EP 0410832 B1 19921216 (FR)

Application

EP 90401934 A 19900704

Priority

FR 8910223 A 19890728

Abstract (en)

[origin: EP0410832A1] The double column (1, 2) comprises an apparatus for vaporising oxygen and condensing nitrogen, which includes, on the one hand, an oxygen trickle main heat exchanger (7) partially immersed when the plant is stopped and, on the other hand, an auxiliary heat exchanger (20) which is on its own responsible for vaporising the liquid when the plant is restarted. <IMAGE>

IPC 1-7

F25J 3/04

IPC 8 full level

F25J 3/00 (2006.01); **F25J 3/04** (2006.01)

CPC (source: EP KR US)

F25J 3/04 (2013.01 - KR); **F25J 3/04412** (2013.01 - EP US); **F25J 3/04793** (2013.01 - EP US); **F25J 3/04818** (2013.01 - EP US); **F25J 3/04884** (2013.01 - EP US); **F25J 5/005** (2013.01 - EP); **F25J 2235/06** (2013.01 - EP US); **F25J 2235/50** (2013.01 - EP US); **F25J 2245/50** (2013.01 - EP US); **F25J 2250/02** (2013.01 - EP US); **F25J 2250/04** (2013.01 - EP US); **F25J 2250/10** (2013.01 - EP US); **F25J 2250/20** (2013.01 - EP US); **Y10S 62/903** (2013.01 - EP US)

Cited by

EP0469780A1; EP1094286A1; US6430961B1; EP0567360B2

Designated contracting state (EPC)

BE DE ES FR GB IT NL SE

DOCDB simple family (publication)

EP 0410832 A1 19910130; EP 0410832 B1 19921216; AU 5985790 A 19910131; AU 625706 B2 19920716; BR 9003676 A 19910903; CA 2022168 A1 19910129; CA 2022168 C 19950314; DE 69000593 D1 19930128; DE 69000593 T2 19930422; ES 2036408 T3 19930516; FR 2650379 A1 19910201; FR 2650379 B1 19911018; JP 2985892 B2 19991206; JP H0370977 A 19910326; KR 910003342 A 19910227; PT 94834 A 19931029; US 5071458 A 19911210; ZA 905895 B 19910529

DOCDB simple family (application)

EP 90401934 A 19900704; AU 5985790 A 19900725; BR 9003676 A 19900727; CA 2022168 A 19900727; DE 69000593 T 19900704; ES 90401934 T 19900704; FR 8910223 A 19890728; JP 19639490 A 19900726; KR 900011359 A 19900726; PT 9483490 A 19900727; US 55809190 A 19900725; ZA 905895 A 19900726