

Title (en)

Process for the production of high pressure nitrogen and oxygen

Title (de)

Verfahren zur Herstellung von Hochdruck-Stickstoff und Sauerstoff

Title (fr)

Procédé de production d'azote sous haute pression et d'oxygène

Publication

**EP 0562893 B2 20001220 (FR)**

Application

**EP 93400522 A 19930302**

Priority

FR 9203501 A 19920324

Abstract (en)

[origin: EP0562893A1] According to this process, after the nitrogen originating from the low pressure column (11) is heated, it is compressed to the high pressure by means of a single nitrogen compressor (7) and the low-pressure column (11) is operated at a pressure of the order of PN/ rho N, where PN denotes the high pressure of nitrogen and rho N the compression ratio of the said nitrogen compressor. Application to the simultaneous production of, on the one hand, nitrogen of high purity at a pressure of between 50 and 60 bars and, on the other hand, oxygen at 65 bars, to feed a unit for producing ammonia. <IMAGE>

IPC 1-7

**F25J 3/04**

IPC 8 full level

**F25J 3/04** (2006.01)

CPC (source: EP US)

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**F25J 2230/50** (2013.01 - EP US); **F25J 2290/12** (2013.01 - EP US)

Citation (opposition)

Opponent :

- EP 0384483 A2 19900829 - LINDE AG [DE]
- SU 739316 A1 19800605 - BELYAKOV VIKTOR P [SU], et al
- Prospectus de l'entreprise Atlas Copco: "Process-Engineered Centrifugal Compressors", 1991, pages 1 à 24
- Rohde, W., "Plants with Molecular Sieve Absorbers, Comparison with other Processes and Operational Advantages", LINDE-Symposium "Air Separation Plats", juin 1986, pages 1 à 20
- Springmann, H., "Die Gewinnung von Hochdruck-Sauerstoff", LINDE-Berichte aus Wissenschaft und Technik, 46/1979

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CN106489059A; EP1120616A3; EP0834712A3; EP0982554A1; EP3059536A1; CN108207113A; CN106662394A; RU2691210C2; US6247333B1;  
US6871513B2; WO2016131545A1; WO2016005031A1; WO03016676A1; US7100692B2

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DE 69310429 D1 19970612; DE 69310429 T2 19971211; DE 69310429 T3 20010823; ES 2101256 T3 19970701; ES 2101256 T5 20010316;  
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