

Title (en)

Process and apparatus for producing gaseous oxygen under pressure

Title (de)

Verfahren und Einrichtung zur Herstellung von gasförmigen Drucksauerstoff

Title (fr)

Procédé et installation de production d'oxygène gazeux sous pression

Publication

EP 0689019 A1 19951227 (FR)

Application

EP 95401443 A 19950619

Priority

FR 9407531 A 19940620

Abstract (en)

Prodn. of gaseous oxygen is performed under pressure by air distn. in a double distn. column (7) contg. a medium pressure column (8), a low pressure column (9), and a heat exchanger (6) which contacts air to be distilled with prods. from the distn. columns. Liquid oxygen is extracted from the low pressure column. It is submitted to a vaporisation pressure of at least 13 bars and then vaporised and heated at this pressure by heat exchange with the inlet air. The process comprises: (i) compressing a first fraction of air to a medium pressure, cooling to its dew point in the heat exchanger and sending to the distn. columns; (ii) compressing a second fraction of the air to a high pressure of ≥ 25 bars i.e. below the condensation pressure of the air in the heat exchanger. The air is cooled and partially liquefied, that part of which is introduced into the distn. columns, and the rest passes through the heat exchanger at an intermediate temp. and is expanded to the medium pressure in a first turbine (4, 51) before being introduced into the distn. columns; (iii) at least one liq. prod. is extracted. <IMAGE>

IPC 1-7

F25J 3/04

IPC 8 full level

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Citation (applicant)

- FR 9102917 A 19910311
- FR 9115935 A 19911220
- FR 9202462 A 19920302
- FR 9207662 A 19920623
- FR 9304274 A 19930409

Citation (search report)

- [A] EP 0504029 A1 19920916 - AIR LIQUIDE [FR]
- [A] FR 2688052 A1 19930903 - GRENIER MAURICE [FR]

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EP1067345A1; FR2943772A1; FR3014545A1; CN114909189A; EP0789208A1; FR2744795A1; US5735142A; EP2176610A4; WO2010109149A3; WO2015082860A3; KR100466917B1

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