

Title (en)

Process and apparatus for producing gaseous oxygen under pressure

Title (de)

Verfahren und Einrichtung zur Herstellung von gasförmigem Drucksauerstoff

Title (fr)

Procédé et installation de production d'oxygène gazeux sous pression

Publication

EP 0689019 B1 19990728 (FR)

Application

EP 95401443 A 19950619

Priority

FR 9407531 A 19940620

Abstract (en)

[origin: EP0689019A1] 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

C01B 13/02 (2006.01); **F25J 3/04** (2006.01)

CPC (source: EP KR US)

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F25J 2215/54 (2013.01 - EP KR US); **F25J 2290/62** (2013.01 - EP KR US); **Y10S 62/913** (2013.01 - EP KR US)

Cited by

EP1067345A1; FR2943772A1; FR3014545A1; CN114909189A; EP2176610A4; EP0789208A1; FR2744795A1; US5735142A; WO2010109149A3;
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DE 69511013 D1 19990902; DE 69511013 T2 20000120; ES 2136259 T3 19991116; FR 2721383 A1 19951222; FR 2721383 B1 19960719;
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