

Title (en)

Method for producing gaseous oxygen and a cryogenic plant in which said method can be carried out.

Title (de)

Verfahren zur Herstellung gasförmigen Sauerstoffs und kryogenische Anlage zur Durchführung dieses Verfahrens.

Title (fr)

Méthode de production d'oxygène gazeux et installation cryogénique pour la mise en oeuvre de cette méthode.

Publication

EP 0042676 A1 19811230 (EN)

Application

EP 81302417 A 19810602

Priority

- GB 8019739 A 19800617
- GB 8037913 A 19801126

Abstract (en)

A method for producing gaseous oxygen, preferably at pressures in excess of 35 bars A, by the fractional distillation of air using a conventional double column having a high pressure column (6) and a low pressure column (11). Liquid oxygen is withdrawn from the bottom of the low pressure column (11) and is pressurized to just above the desired product pressure by pump (13). The liquid oxygen is then vapourized in heat exchanger (15) using nitrogen from the top of the high pressure column (6). The nitrogen is compressed in compressor (28) to 41 bars A and in compressors (32 and 34) to 80 bars A. The stream (35) is sub-cooled in heat exchanger 15 and, after expansion at valve (36), the liquid nitrogen is returned to the high pressure column as reflux. The stream (31) is cooled in heat exchanger (15) and is expanded in an expander (40). The gas leaving the expander (40) is used to cool the stream (35) in heat exchanger (15) and is subsequently recycled to the inlet of compressor 28.

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Citation (search report)

- EP 0029656 A1 19810603 - AIR PROD & CHEM [US]
- US 3083544 A 19630402 - FRITZ JAKOB
- EP 0024962 A1 19810311 - AIR LIQUIDE [FR]
- US 3605422 A 19710920 - PRYOR JOHN A, et al

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DOCDB simple family (application)

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