

## Title (en)

Integrated process for air separation and energy generation and plant for carrying out the process

## Title (de)

Integriertes Verfahren zur Luftzerlegung und Energieerzeugung und Anlage zur Ausführung des Verfahrens

## Title (fr)

Procédé intégré de séparation d'air et installation pour la mise en oeuvre d'un tel procédé

## Publication

**EP 1406052 A3 20050105 (FR)**

## Application

**EP 03300172 A 20011218**

## Priority

- EP 01403286 A 20011218
- FR 0100403 A 20010112

## Abstract (en)

[origin: EP1223395A1] Air separation procedure produces fluid rich in oxygen and optionally a fluid rich in nitrogen in a plant comprising at least two air separators each having at least two distillation columns, an air compressor, a combustion chamber, and an expansion turbine. The amount of cryogenic liquid produced by the second separator in relation to the treated air flow is greater than that produced by the first separator. The air separation procedure produces a fluid rich in oxygen and optionally a fluid rich in nitrogen in a plant comprising at least two air separators (1, 101), each having at least two distillation columns, a first air compressor (13), a first combustion chamber (17), and a first expansion turbine (19). The first compressor feeds compressed air to the first separator and combustion chamber, while the second separator is fed with compressed air by an auxiliary compressor (21). A nitrogen-rich gas is fed to the first air separator upstream of the expansion turbine, which is fed with combustion gases from at least one combustion chamber (17). Nitrogen-rich gas from the first and second air separators also delivered upstream of the expansion turbine. In addition, the amount of cryogenic liquid produced as an end product by the second separator in relation to the treated air flow is greater than that produced by the first separator. An Independent claim is included for a plant in which the above process is performed.

## IPC 1-7

**F25J 3/04**

## IPC 8 full level

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## Citation (search report)

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