

Title (en)

Process and device for producing high pressure oxygen product by cryogenic air separation

Title (de)

Verfahren und Vorrichtung zur Gewinnung Sauerstoffdruckprodukt durch Tieftemperaturzerlegung von Luft

Title (fr)

Procédé et installation de production d'oxygène sous haute pression par séparation cryogénique de l'air

Publication

EP 1139046 B1 20040421 (DE)

Application

EP 00115777 A 20000721

Priority

DE 10015602 A 20000329

Abstract (en)

[origin: KR20010093765A] PURPOSE: A process and an apparatus for producing a pressurized product by low-temperature fractionation of air is provided to reduce the consumption of energy. CONSTITUTION: For producing a pressurized product by low-temperature fractionation of air in a rectification system composed of a high-pressure column(13) and a low-pressure column(14), a first feed airstream(12) is introduced into the high-pressure column, and an oxygen-rich fraction(38) from the low-pressure column is brought to pressure in the liquid state and introduced into a mixing column(16). A second feed airstream(6,15) is introduced into the lower region of the mixing column and brought into counter current contact with the oxygen-rich fraction(41). The mixing column is operated at a pressure which is lower than the operating pressure of the high-pressure column. A total airstream(1) which comprises the first and second feed air streams is compressed to a first pressure which is lower than the operating pressure of the high-pressure column and is purified at about this first pressure. The total purified airstream is divided into the first and the second feed airstream. The first feed airstream is further compressed separately from the second feed airstream to a second pressure which is at least equal to the operating pressure of the high-pressure column.

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