

Title (en)
METHOD AND DEVICE FOR PRODUCING COMPRESSED NITROGEN

Title (de)
VERFAHREN UND VORRICHTUNG ZUR GEWINNUNG VON DRUCKSTICKSTOFF

Title (fr)
PROCEDE ET DISPOSITIF DE PRODUCTION D'AZOTE COMPRIME

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Application
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Abstract (en)
[origin: WO9819122A1] The present invention concerns a method and device for producing compressed nitrogen by air classification at a low temperature in a rectifying apparatus presenting a pressure column (4) and a low pressure column (5). The air used (1, 3) is introduced in the pressure column (4). A liquid fraction containing oxygen is taken from the pressure column (4) and introduced in the low pressure column (5). The gas nitrogen (18) from the low pressure column (5) is condensed, at least partially, in a head capacitor through indirect heat transfer using an evaporating liquid (13). In order for the nitrogen from the pressure column to be obtained in the form of a compressed gas (24, 24, 29), a pressure is used which is higher than that needed for the operation of the low pressure column (5). The nitrogen (20) bleed from the low pressure column is exposed in that liquid state to a pressure higher than that of the low pressure column (5). The liquid (22) put under pressure is evaporated in an evaporator (23) through direct heat transfer involving a heat carrier (35), which produces a gaseous compressed nitrogen (24, 25, 29).

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