

Title (en)

Process for producing ultra pure nitrogen

Title (de)

Verfahren zur Gewinnung von ultrareinem Stickstoff

Title (fr)

Procédé de production d'azote à ultra haute pureté

Publication

EP 1001236 B1 20040929 (DE)

Application

EP 99122146 A 19991105

Priority

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Abstract (en)

[origin: EP1001236A2] The oxygen-free pressurized nitrogen fraction is released into the low pressure column which is heated in its sump. In the low pressure column, raising vapors form and by means of a cycle ultrapure nitrogen from carbon monoxide is released at the top of the low pressure column, carbon monoxide-free head-gas is removed at the top of the low pressure column and partially liquefied at raised pressure. The liquefied portion is released in He-Ne-He-column which is heated in its sump, and the ultrapure nitrogen is removed as liquid. The oxygen-free pressurized nitrogen fraction is drawn either from an upper portion of the pressure column liquid or ready in a liquid tank with stored oxygen-free nitrogen. Process for producing ultrapure nitrogen is by means of low temperature analysis of air in a rectifying system having a rectifying column where compressed; passing purified air into a pressure column from which oxygen-free nitrogen pressure fraction is produced; passing the fraction into a low pressure column and producing as head gas carbon monoxide free low pressure nitrogen in the low pressure column.

IPC 1-7

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IPC 8 full level

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CPC (source: EP KR US)

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