Title (en)

Process for nitrogen liquefaction by recovering the cold derived from liquid methane gasification

Title (de)

Verfahren zur Stickstoffverflüssigung durch Ausnutzung der Verdampfungskälte von flüssigem Methan

Title (fr)

Procédé de liquéfaction d'azote en récupérant le froid obtenu par la vaporisation de méthane liquide

Publication

**EP 1469265 B1 20060531 (EN)**

Application

**EP 04007031 A 20040324**

Priority

IT BG20030027 A 20030408

Abstract (en)

[origin: EP1469265A1] This process for nitrogen liquefaction by recovering the cold derived from liquid methane gasification has the characteristic of cooling with the liquid methane (1) a cryogenic fluid (5), preferably nitrogen, and then using said cryogenic fluid as coolant fluid (9,10) in two nitrogen compressor units of the nitrogen liquefier, both for the interstage coolers (11,12,13,27,28,29,30,31,32) and for the intake coolers (27) and for the final delivery coolers (19,32) of one of the nitrogen compressor unit. <??>The use of nitrogen cooled by the methane enables liquid nitrogen to be produced (3) in a liquefier consisting of the two said compressor units and a cryogenic turbine (17), with a very low specific energy consumption. <IMAGE>

IPC 8 full level

**F25J 1/02** (2006.01); **F17C 9/04** (2006.01); **F25J 3/04** (2006.01)

CPC (source: EP)

**F25J 1/0015** (2013.01); **F25J 1/005** (2013.01); **F25J 1/0072** (2013.01); **F25J 1/0204** (2013.01); **F25J 1/0222** (2013.01); **F25J 1/0234** (2013.01); **F25J 1/0268** (2013.01); **F25J 1/0292** (2013.01); **F25J 1/0297** (2013.01); **F25J 3/0406** (2013.01); **F25J 3/04254** (2013.01); **F25J 3/04351** (2013.01); F25J 2210/62 (2013.01); F25J 2230/08 (2013.01); F25J 2230/30 (2013.01); F25J 2230/42 (2013.01)

Cited by

CN105308404A; US9459042B2; US11408675B2; WO2008023000A2; WO2014155108A3

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