

Title (en)

PRODUCTION OF HELIUM FROM A STREAM OF NATURAL GAS

Title (de)

HERSTELLUNG VON HELIUM AUS EINEM ERDGASSTROM

Title (fr)

PRODUCTION D'HÉLIUM À PARTIR D'UN COURANT DE GAZ NATUREL

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2017009573A1] The invention relates to a method for producing a helium gas stream (27) from a source gas stream (1) comprising at least helium, methane and nitrogen, comprising at least the following steps: step a): introducing said source gas stream (1) into a double column nitrogen rejection unit (6), said double column comprising a high-pressure distillation column (5), a low-pressure distillation column (7) and a condenser (8) linking the high-pressure column (5) with the low-pressure column (7); step b): extracting at the outlet of said condenser (8) at least a part (12) of a mixture (11) produced at the head of the high-pressure column (5); step c): reducing the pressure of said mixture from step b) to an intermediate pressure of between 8 and 20 bar absolute; step d): separating the mixture (14) from step c) in a first phase separation chamber (15) into a liquid phase (16) and a helium-enriched gas phase (17); step e): at least partially condensing said helium-enriched gaseous phase (17) in a heat exchanger (24); and step f): separating the stream (25) coming from step e) in a second phase separation chamber (26) into a liquid phase (28) and a gas phase (27) containing more than 50% by volume of helium.

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