

Title (en)

METHOD FOR LIMITING THE CONCENTRATION OF OXYGEN CONTAINED IN A BIOMETHANE STREAM

Title (de)

VERFAHREN ZUR BEGRENZUNG DER SAUERSTOFFKONZENTRATION IN EINEM BIOMETHANSTROM

Title (fr)

PROCÉDÉ DE LIMITATION DE LA CONCENTRATION D'OXYGÈNE CONTENU DANS UN COURANT DE BIOMÉTHANE

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Application

EP 18839834 A 20181217

Priority

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Abstract (en)

[origin: WO2019122662A1] The invention relates to a method for producing biomethane (40) by purifying a biogas feedstock stream (1), comprising the following steps: a): injecting the gas feedstock stream (1) into a pretreatment unit (5) in which said gas stream is partially separated from the CO₂ and the oxygen which it contains and is compressed to a pressure P1 higher than 50 bar abs; b): injecting the gas stream (22) resulting from step b), depleted of CO₂, into a cryogenic separator in a distillation column (26) in order to separate the nitrogen from said gas stream (22), said distillation column (26) comprising n plates, n being an integer comprised between 8 and 100; c): obtaining a stream (27), enriched with CH₄, resulting from the cryogenic separation by pumping the bottoms product (37) from said column (26) at a pressure P2 higher than the critical pressure of said product, characterised in that when the molar concentration of nitrogen in said gas stream (22) resulting from step a), depleted of CO₂, implemented in step b) is lower than a predetermined threshold, nitrogen is injected prior to step b), in order for the stream injected into said column (26) to have a molar concentration of nitrogen at least equal to said predetermined threshold.

IPC 8 full level

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CPC (source: EP KR US)

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See references of WO 2019122662A1

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