

Title (en)
Process for production of methane rich gas

Title (de)
Verfahren zur Herstellung von methanreichem Gas

Title (fr)
Procédé de production de gaz riche en méthane

Publication
EP 3018190 A1 20160511 (EN)

Application
EP 14191663 A 20141104

Priority
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Abstract (en)
The invention relates to process for production of a methane rich product gas comprising the steps of: (a) providing a feed gas comprising carbon oxide such as carbon monoxide and/or carbon dioxide, and hydrogen, (b) reacting said feed gas in the presence of a catalyst in one or more methanation reactors with methanation catalyst, thereby forming a first gas rich in methane, (c) recycling a first part of said first gas to said feed gas to the one or more methanation reactors, (d) optionally, reacting a second part of said first gas rich in methane in one or more further methanation reactors of the one or more methanation reactors, (e) withdrawing water from said second part of said first gas or from the gas resulting from reacting said second part of said first gas rich in methane in the one or more further methanation reactors, thereby forming a second gas, (f) recycling a first part of said second gas to said feed gas to a first methanation reactor of the one or more methanation reactors, (g) providing said methane rich product gas from a second part of said second gas, wherein an ejector causes said recycling of said first part of said first gas in step (c) and a compressor causes said recycling of said first part of said second gas in step (f), and said ejector has a steam feed as motive gas and a recycled methane rich product gas as a suction gas.

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Citation (applicant)
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