

Title (en)  
NATURAL GAS LIQUEFACTION BY A HIGH PRESSURE EXPANSION PROCESS USING MULTIPLE TURBOEXPANDER COMPRESSORS

Title (de)  
ERDGASVERFLÜSSIGUNG DURCH EIN HOCHDRUCKEXPANSIONSVERFAHREN UNTER VERWENDUNG MEHRERER TURBOEXPANDERKOMPRESSOREN

Title (fr)  
LIQUÉFACTION DE GAZ NATUREL PAR UN PROCÉDÉ D'EXPANSION À HAUTE PRESSION UTILISANT DE MULTIPLES COMPRESSEURS DE TURBODÉTENDEUR

Publication  
**EP 3701206 A1 20200902 (EN)**

Application  
**EP 18792623 A 20180927**

Priority  
• US 201762576989 P 20171025  
• US 2018053144 W 20180927

Abstract (en)  
[origin: US2019120548A1] A method and system for liquefying a feed gas stream including natural gas. The feed gas stream is provided at a pressure less than 1,200 psia. A refrigerant stream having a pressure of at least 1,500 psia is cooled and then expanded in a first expander to an intermediate pressure. The first expander is mechanically coupled to a first coupled compressor to together form a first turboexpander-compressor. The refrigerant stream is expanded in a second expander, which is mechanically coupled to a second coupled compressor to together form a second turboexpander-compressor. The refrigerant stream cools the feed gas stream in one or more heat exchangers. Using the second coupled compressor and a first driven compressor, the refrigerant stream is compressed to a discharge pressure within 300 psia of the intermediate pressure. The refrigerant stream is compressed using the first coupled compressor and is further compressed to provide the refrigerant stream.

IPC 8 full level  
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See references of WO 2019083676A1

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