

Title (en)  
Process to remove nitrogen from natural gas

Title (de)  
Verfahren zur Entfernung von Stickstoff aus Erdgas

Title (fr)  
Procédé pour éliminer l'azote à partir de gaz naturel

Publication  
**EP 0725256 A1 19960807 (EN)**

Application  
**EP 96300725 A 19960201**

Priority  
GB 9502126 A 19950203

Abstract (en)  
Nitrogen is removed from a natural gas feed stream by a cryogenic distillation process in which the feed stream (101) is separated in a distillation column (11); a methane-rich bottoms liquid (103) is recovered as a methane-rich product (104), preferably after being pumped (21) to increase its pressure; a nitrogen-rich overhead vapour (105) is warmed in heat exchange (4) with intermediate vapour stream(s) (112, 114) to at least partially condense said stream(s) for return (113, 115) to the distillation column (11) to provide reflux; and a portion (108) of the warmed nitrogen-rich overhead vapour (105) is utilized as a recycle nitrogen-rich heat pump stream (109, 110, 111) above the critical pressure of nitrogen to provide at least part of the reboil (2) to the distillation column and to produce a mixed vapour-liquid stream, which is returned to the distillation column (11) to provide reflux.

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Citation (search report)  
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