

Title (en)  
DEVICE AND METHOD FOR CRYOGENICALLY SEPARATING A MIXTURE OF CARBON MONOXIDE AND METHANE PLUS HYDROGEN AND OPTIONALLY NITROGEN

Title (de)  
VORRICHTUNG UND VERFAHREN ZUR KRYOGENEN TRENNUNG EINER MISCHUNG AUS KOHLENMONOXID UND METHAN PLUS WASSERSTOFF UND GEGEBENENFALLS STICKSTOFF

Title (fr)  
APPAREIL ET PROCÉDÉ DE SÉPARATION CRYOGÉNIQUE D'UN MÉLANGE DE MONOXYDE DE CARBONE ET DE MÉTHANE AINSI QUE D'HYDROGÈNE ET ÉVENTUELLEMENT D'AZOTE

Publication  
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Application  
**EP 13727260 A 20130506**

Priority  
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Abstract (en)  
[origin: WO2013178901A2] A device for cryogenically separating a mixture (5) of methane, carbon monoxide and hydrogen comprises a first separation unit comprising a first column (19), the first separation unit being supplied with the mixture (5), a first pipe for discharging a gas enriched with hydrogen (21) from the first unit, a second pipe for discharging a liquid (23) containing methane and carbon monoxide from the first unit, a second column (27) linked to the second pipe, a third pipe linked to the tank of the second column to withdraw a liquid enriched with methane (33) and a fourth pipe linked to the head of the second column to withdraw a gas enriched with carbon monoxide (43), the first pipe being arranged under the second column, the two columns having the same main axis, such that the liquid enriched with methane (33) is produced at a higher pressure than the pressure of the tank of the second column.

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Citation (examination)  
• US 4695303 A 19870922 - MONTGOMERY IV GEORGE J [US], et al  
• FOERG, W.: "Hydrogen purification at low temperatures", CHEMICAL AND PROCESS ENGINEERING, vol. 52, no. 2, 1 February 1971 (1971-02-01), pages 57 - 63,68, XP009520174, ISSN: 0953-2269

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