

Title (en)
METHOD OF REJECTING NITROGEN FROM A HYDROCARBON STREAM TO PROVIDE A FUEL GAS STREAM AND AN APPARATUS THEREFOR

Title (de)
VERFAHREN ZUR STICKSTOFFTRENNUNG AUS EINEM KOHLENWASSERSTOFFSTROM ZUR BEREITSTELLUNG EINES BRENNSTOFF-GAS-STROMS UND VORRICHTUNG DAFÜR

Title (fr)
PROCEDE DE REJET D'AZOTE D'UN FLUX D'HYDROCARBURE POUR PRODUIRE UN FLUX DE GAZ COMBUSTIBLE ET APPAREIL ASSOCIEMETHOD OF REJECTING NITROGEN FROM A HYDROCARBON STREAM TO PROVIDE A FUEL GAS STREAM AND AN APPARATUS THEREFOR

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Abstract (en)
[origin: WO2010060735A2] Method of, and apparatus (1) for, rejecting nitrogen from a hydrocarbon stream (10) to provide a fuel gas stream (510). A hydrocarbon stream (10) is at least partially liquefied and subsequently expanded. The expanded hydrocarbon stream (110) is fractionated in a fractionation column (150) to provide an nitrogen-rich hydrocarbon stream (160) and a nitrogen-lean hydrocarbon stream (170). The nitrogen-rich hydrocarbon stream (160) is partially condensed in a condenser (200) by cooling against a refrigerant circulated in a dedicated first refrigerant circuit (800), and phase-separated to provide a nitrogen-rejection stream (260) and a nitrogen-lean reflux stream (270) which is returned to the fractionation column (150). The nitrogen-lean hydrocarbon stream (170) is partially vaporized and phase-separated to provide a vapour stream (360) that is returned to the fractionation column (150) and a liquefied nitrogen-lean hydrocarbon stream (370) that is subjected to sub-cooling. The fuel gas stream (510) is generated from the sub-cooled nitrogen-lean hydrocarbon stream (410).

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