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(54) Process for forming city gas with high heat value from methanol as a crude material.

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(57) A process for producing a city gas having a high caloric content wherein a methanol-water mixture is reacted in a one-step reaction to produce a methane-rich gas mixture containing methane, hydrogen, carbon monoxide, carbon dioxide and water. The water is separated from the methane-rich gas mixture and recycled as a water feed. The carbon dioxide is then removed from the methane-rich gas mixture and butane is added to the remaining methane-rich gas to produce a resultant city gas having a heat value of at least about 11,000 Kcal/Nm<sup>3</sup>. The total amount of heat required to heat

the reactants and sustain the process at steady state conditions is provided by heat that is recovered and recycled from the heat of reaction. A nickel catalyst is used to promote the one-step reaction.



EP 88 10 9772

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
A	EP-A-0 003 737 (METALLGESELLSCHAFT AG) * Claims 1,2; page 2, line 9 - page 7, line 8 *	1,2,4, 10,11, 12,20, 25,32- 35,49- 52	C 10 L 3/00 C 07 C 1/20
A	FR-A-2 219 218 (ENTREPRISE GENERALE DE CONSTRUCTION D'USINES MALLET) * Claims 1,5,7 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			C 10 L C 07 C
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21-04-1989	Examiner DE HERDT O.C.E.
<b>CATEGORY OF CITED DOCUMENTS</b>			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			