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Method for converting carbon dioxide and natural gas into Gasoline

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ABSTRACT:

A process for the production of Gasoline from natural gas (methane) and the reaction of the resulting hydrogen gas with carbon dioxide in a catalyst containing methanol synthesis to produce methanol. The methanol thus formed may be converted to gasoline by the Mobil process. Alternative methods include the gasification with carbon dioxide to produce carbon monoxide, which is then reacted with hydrogen gas to produce. The methods taught reduce the overall amount of carbon dioxide resulting from the methanol production process.

SUMMARY OF THE INVENTION

1. It is an object of the present invention to provide an efficient method for the production of Gasoline from natural gas and carbon dioxide which is simpler than current process and which at the same time enables minimum release of carbon dioxide to the atmosphere.
2. It is another object of the present invention to provide a process for producing gasoline which is simpler and more inexpensive than current processes both in terms of capital costs and operating cost.
3. It is another object of the present invention to provide a method which produces a high yield of Gasoline.

BACKGROUND OF THE INVENTION

1. Field of the invention:

The present invention relates to a process for the production of gasoline. More particularly the invention is concerned with a sequential process for the production of gasoline by conversion of natural gas and carbon dioxide.

2. Description of the prior art:

- (a) Gasoline or petrol, is a transparent, [petroleum-derived liquid](#) that is used primarily as a fuel in [internal combustion engines](#). It consists mostly of [organic compounds](#) obtained by the [fractional distillation](#) of petroleum, enhanced with a variety of additives. Some gasolines also contain [ethanol](#) as an [alternative fuel](#).
- (b) Gasoline is more [volatile](#) than [diesel](#) oil, [Jet-A](#), or [kerosene](#), not only because of the base constituents, but also because of [additives](#). Volatility is often controlled by blending with [butane](#), which boils at -0.5°C .

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