

Abstract

To provide a method for efficiently producing methanol from a lower hydrocarbon such as natural gas.

The method includes the steps of: reforming lower hydrocarbon gas containing steam and carbon dioxide added thereto in the presence of a catalyst to generate syngas mainly including hydrogen and carbon monoxide; synthesizing methanol by reaction of the syngas obtained in the reforming step in the presence of a catalyst; recycling by separating the methanol synthesized in the methanol synthesis step from a residual gas containing unreacted gas and merging the residual gas as a recycle gas with the syngas; and separating hydrogen by separating hydrogen gas from at least a part of the recycle gas and merging the hydrogen gas with the syngas.