



## **An Overview of Ferrous and Cobalt Catalysts Used in the Conversion of Synthetic Gas to Fuels**

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**Abstract :** Syngas or synthetic gas is a gas mixture containing Carbon monoxide, Carbon dioxide and Hydrogen. Synthetic gas can be obtained from coal or biomass gasification process at high temperature conditions. Since syngas is a colorless, odorless and toxic gas which accelerates green house effect so its concentration in the environment must be reduced. This can be effectively done using Fischer tropesch reaction with the help of catalysts like Iron, Cobalt, Ruthenium etc which converts the syngas to fuel. This is effective not only in the reduction in the concentration of syngas but also in the production of renewable synthetic hydrocarbon fuels which can act as a substitution to rapidly declining non renewable fuels. This paper explores the recent status of conversion of synthetic gas to liquid fuel conversion process by catalysis using Iron and Cobalt catalysts in Fischer Tropsch process. It also discusses about the catalysts, its properties and its activity when they are used in Fischer tropesch reaction.

**Keywords:** Fischer–Tropsch; biomass; synthetic gas; gasification; catalyst.

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