

Biomass-To-Liquid(BTL) as an Alternative Diesel Fuel

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In order to reduce the effects of greenhouse gas (GHG) emissions, the South Korean government has announced a special platform of technologies as part of an effort to minimize global climate change. To further this effort, the Korean government has pledged to increase low-carbon and carbon neutral resources for biofuel derived from biomass to replace fossil and to decrease levels of carbon dioxide. In general, second generation biofuel produced from woody biomass is expected to be an effective avenue for reducing fossil fuel consumption and greenhouse gas (GHG) emissions in road transport. It is important that under the new Korean initiative, pilot scale studies evolve practices to produce biomass-to-liquid (BTL) fuel. This study reports the development status and potentials of BTL fuel with chemical and physical properties as an alternative diesel fuel in research and development level. BTL fuel can be used in conventional diesel engines, pure or blended with conventional diesel, due to its similar physical properties to diesel. BTL fuel can be used neat with without engine modification or can be blended in any proportion with conventional diesel fuel. BTL fuel has a high centane number, free of sulfur and aromatic hydrocarbons.