

Liquid Hydrocarbons from Biomass Derived Ethanol

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Technology Summary

We report simple approaches to accomplish dramatic reduction of C2-C4 in product stream. In the first approach, the gaseous products, after collection of liquid hydrocarbons and water from ethanol conversion, are sent to a second zone in the catalyst reactor where C2-C2 olefins and paraffins are converted to liquid hydrocarbons (C5 and above). In the second approach, the gaseous hydrocarbons (C2-C4) are co-fed with fresh ethanol into the reactor system. The resulting product stream shows dramatically reduced new gaseous hydrocarbons, thereby, converting ethanol to liquid hydrocarbons in high yields.

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