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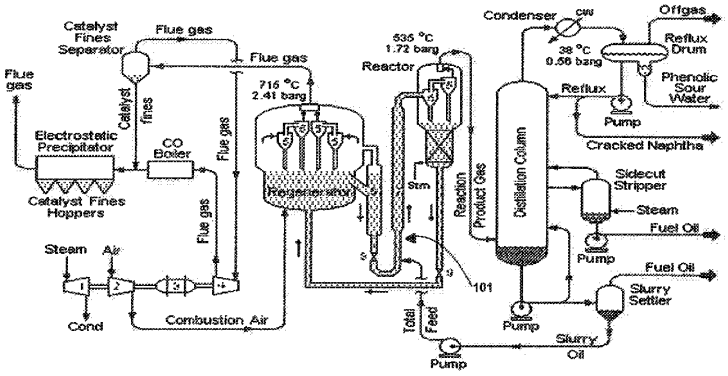


Figure 1

(57) Abstract: The present application generally relates to catalytically preparing liquid fuel products with an improved product mix by co-processing a plurality of reactants in in refinery or field- upgrading operations. The reactants may include, for example, petroleum fraction and a biocrude oil having an alcohol additive.

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