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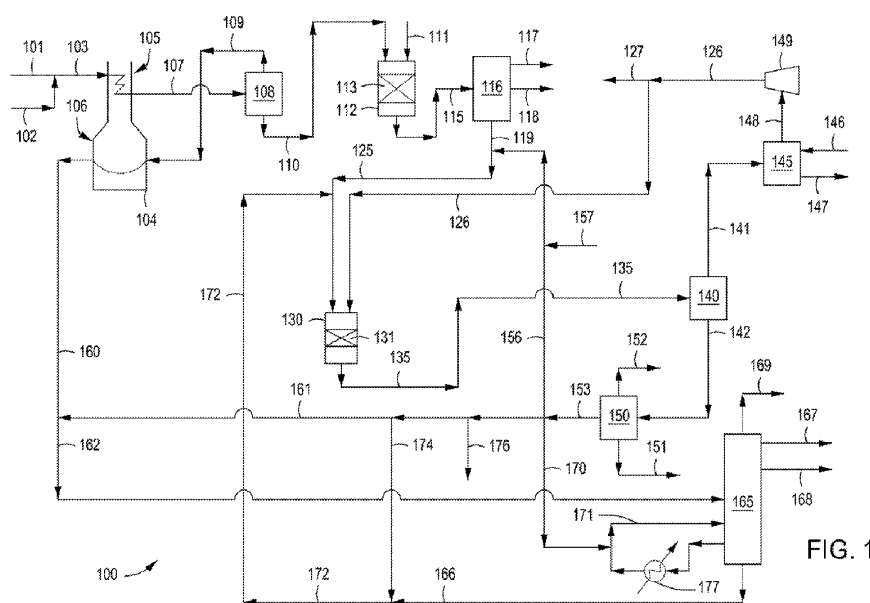


FIG. 1

(57) Abstract: In some examples, hydrocarbon feed and a diluent such as steam are mixed, and heated. A vapor phase product and a liquid phase product can be separated from the heated mixture. The liquid phase product can be hydroprocessed to produce a first hydroprocessed product. A pitch and one or more hydrocarbon products can be separated from the first hydroprocessed product. The pitch can be contacted with a diluent to produce a pitch-diluent mixture. The pitch-diluent mixture can be hydroprocessed to produce a second hydroprocessed product. A hydroprocessor heavy product and a utility fluid product can be separated from the second hydroprocessed product. The diluent can be or include at least a portion of the utility fluid product. The vapor phase product can be steam cracked to produce a steam cracker effluent. A tar product and a process gas that can include ethylene and propylene can be separated from the steam cracker effluent.

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