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(54) Title: PYROLYSIS PROCESSES FOR UPGRADING A HYDROCARBON FEED

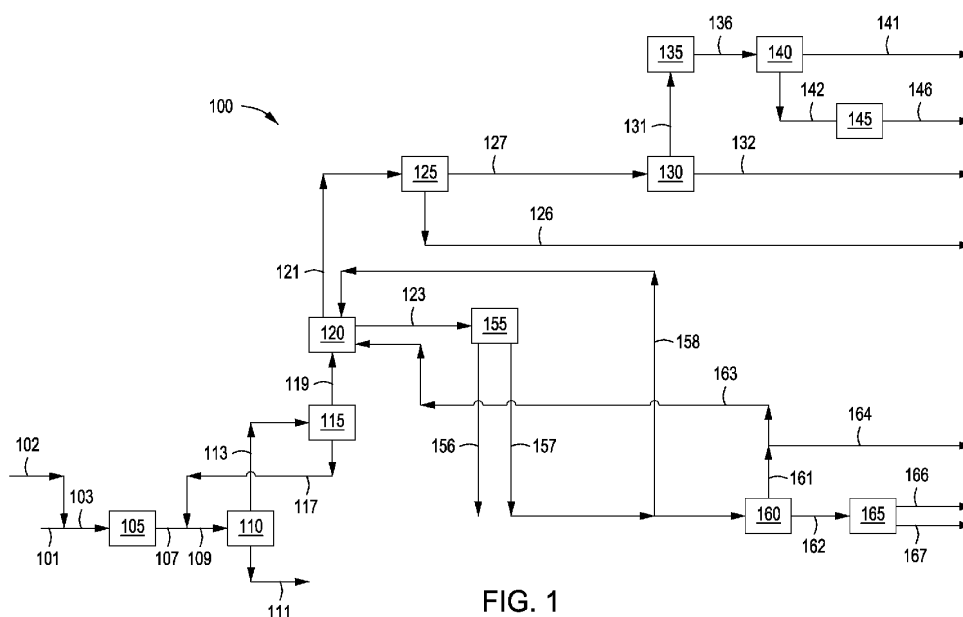


FIG. 1

(57) Abstract: Processes for upgrading a hydrocarbon for a predetermined period of time. The process can include determining an amount of one or more contaminant-containing compositions that will be present in a pyrolysis effluent based, at least in part, on a composition of a hydrocarbon feed to be steam cracked, a temperature the hydrocarbon feed will be heated at during steam cracking, a residence time the hydrocarbon feed will be heated at the temperature during steam cracking, or a combination thereof. In some examples, the process can also include taking one or more steps to allow the hydrocarbon feed to be steam cracked for at least as long as a predetermined period of time, controlling process conditions within one or more separation stages to favor certain product compositions, introducing a predetermined amount of one or more agents into various locations of the process, or any combination thereof.

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