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(54) Title: PROCESS FOR ALKYLATING BENZENE

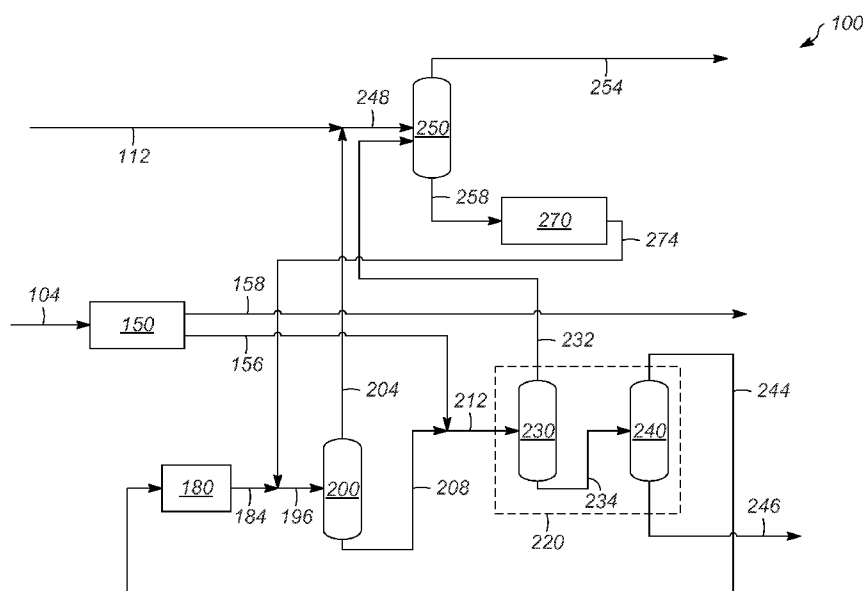


FIG. 1

(57) Abstract: One exemplary embodiment can be a process for alkylating benzene. The process can include obtaining at least a portion of a stream from a transalkylation zone, combining the at least the portion of the stream from the transalkylation zone with a fuel gas stream, and providing at least a portion of the combined stream to a benzene methylation zone. Typically, the fuel gas stream includes an effective amount of one or more alkanes for alkylating at least partially from a hydrogen purification process tail gas.

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